The Impact of COVID-19 on New Graduate Nurse Competency Levels

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Abstract

Purpose: The purpose of this integrative literature review was to (a) examine the experiences and perceptions of newly graduated nurses (NGNs) and their nursing managers upon their transition to practice during the COVID-19 pandemic and (b) recommend strategies to improve clinical competency in onboarding NGNs.

Method: The Whittemore & Knafl (2005) methodology framework guided this review. This approach allowed for the inclusion of both qualitative and quantitative data, providing an efficient method of gathering, analyzing, and interpreting data that presented a comprehensive understanding of the problem of examination.

Results: The perceptions of NGNs and their managers demonstrated two main themes: educational deficiencies and emotional aspects. Educational deficiencies fell under several subthemes: academic practice gap, difficulties with onboarding, and issues in direct relation to COVID-19. Similarly, several sub-themes arose from the emotional aspect, including: feelings of anxiety/fear/depression and feelings of being overwhelmed. The strategy recommendations that came forth from the pandemic fell under three main themes; providing NGNs with a supportive/accepting culture, educational structure/support courses, and a combination of educational and emotional support.

Conclusion: The COVID-19 pandemic exacerbated already existing clinical deficiencies noted in NGNs furthering the academic practice gap at a time when practice-ready NGNs were most needed. However, the pandemic also brought about many positive recommendations, such as the inclusion of support courses to fine-tune needed skills and emotional support both during and out of working times that can help lead to a smoother transition to professional practice for NGNs.

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The Impact of COVID-19 on New Graduate Nurse Competency Levels

The COVID-19 pandemic that began in the spring of 2020 disrupted normal life until recently as adaptations by the healthcare team have begun to diminish its detrimental effects. Throughout the crisis, nurses have been at the forefront of this pandemic caring for those inflicted with the virus. While the majority of Americans were scared, confused, and fearful of contracting this virus, it was these nurses to whom they turned to guide them in this time of uncertainty. Although these nurses appeared to be fearless in the face of uncertainty putting their patient's needs before theirs it does not mean they also did not have feelings of fear, anxiety, and work overload. These feelings were especially felt in new graduate nurses (NGNs) who entered into practice during the pandemic.

In normal times, entry into nursing practice is stressful as NGNs transition from being supported students to independent practitioners. This stress is compounded by staffing shortages throughout the healthcare industry. Likewise, a trend of questionable clinical decision-making skills has been noted in novice nurses (Jenkins et al., 2021). These ongoing stressors have been exacerbated by the pandemic which has worsened staffing levels and decreased educational clinical hours. As such, NGNs are entering practice with less institutional support and orientation as well as abbreviated educational preparation (Powers et al., 2021). This study is designed to uncover the impact of the pandemic on the career readiness and transition to practice for NGNs who completed their nursing education throughout the pandemic and recommendations for institutions onboarding NGNs during this time.

Background

Before the COVID-19 pandemic, NGNs already felt a gap in practice as they transitioned from the role of a student to a practicing nurse with full responsibilities which left them to practice with their newly learned skills and knowledge as though they were fully confident, trained professional nurses and not the unprepared new nurses that they were (Grubaugh, Africa, & Mallory, 2021). This transitional time is traditionally when their period of onboard training took place, easing them into their new role of a practicing nurse. However, as the pandemic persisted and the demand for nurses increased, the lack of training of NGNs was overlooked which allowed them to be placed in the professional role before they were fully ready. Nursing conditions, including nursing shortages, burnouts, and a decline in clinical judgment have been on the rise country wide and came to be exacerbated by the pandemic putting a strain on hospitals to force NGNs to fulfill a role they were not adequately prepared for.

Staffing Shortfalls and Practice Gaps

Nursing conditions before the outbreak of the pandemic were already on a downward trend as the result of many staffing shortages country-wide. There was a shortfall of more than 150,000 RNs predicted in the US for the year 2020 (Sessions, 2021). With already short-staffed hospitals, the pandemic created a surge of a new population of patients that were suspected or confirmed to have COVID-19. This resulted in an influx of priority patients to the hospital causing them to reconfigure their bed capacity, as well as staff, to the areas with the most urgent needs. Thus, staffing shortfalls left hospitals with many areas in desperate need of additional nurses, experienced or newly graduated.

Short staffing in the hospitals lead to a high nurse to patio ratio ultimately leaving the nurse with too many patients and not enough time to spend with each patient. It lead to poor patient outcomes and an increase in safety issues, such as medication errors (Smith et al., 2022). High patient ratios left experienced nurses with minimal time to onboard incoming NGNs. Thus, insufficient staffing was a trigger for an increase in stress, which especially impacted NGNs, causing them to ultimately leave the profession. According to Wolters Kluwer (2018), studies showed that around 35-65% of NGNs left their first nursing job within their first year and 26% left after two years. This was before the height of the pandemic, which only came to exacerbate these burnout rates. The reasoning behind these departures included reality shock, perceived lack of support, and inadequate preparedness for the role (Brown, Tiersa & Pagel, 2022). Both of these challenges, the shortfall of nurses in the field and the academic-practice gap, caused a high turnover in nurses. The turnover rate currently of first-year RNs is 25.3%, with a replacement cost between $10,098 and $88,000 per nurse. Concurrently a Wolters Kluwer study showed that 35-65% of NGNs were found to leave their first nursing job within their first year and 26% left after year two (Wolters Kluwer, 2018). These high turnover rates in nursing made it challenging and stressful for NGNs entering the workforce. This turnover was costly to hospitals in several ways, including a strain on finding replacement nurses, nurse burnout, and financial struggles (Grubaugh, Africa, & Mallory, 2021).

Not only was there a shortfall of nurses entering the field and an increase in nurses leaving the field, but also a growing academic-practice gap felt by NGNs. This academic practice gap lead to safety concerns and highlighted the disparities in the

concept of practice readiness in NGNs as well as the demands on their psychological needs. The transition from the academic setting to the professional role confronts NGNs with the reality of their new responsibilities. Transition to practice, an already intense experience that can be shocking and confusing for NGNs, became more of a challenge adding extra strain on their psyche (Buckner et al., 2021). There were many attempts to try and bridge this practice gap, including utilization of transition to practice programs and academic-practice programs to help develop practice-ready nurses. These programs seemed to be bridging the academic-practice gap seen by nursing organizers and were helping new nurses in developing their competency and preparedness for their new role (Grubaugh, Africa, & Mallory, 2021). However, when the pandemic hit, it drastically shortened the time these NGNs were able to train before they were launched into the work field.

The COVID-19 pandemic added another element to this challenge by making the current healthcare environment more strenuous through increased complexity of patient care and the continuing shortage of working nurses. Therefore, the high demand for nurses during the pandemic caused NGNs to be rapidly prepared for their professional role ultimately coming to highlight their lack of clinical judgment in their new role.

Clinical Judgment Deficiencies

Although the pandemic has caused significant disruption to the education and clinical experiences of nursing students and NGNs, it is not to say that the competency of new nurses was not already on the decline before the pandemic. When looking at the acceptable competency levels of NGNs in recent years, it has been seen that the acceptable level of clinical judgment has been steadily declining, and COVID-19 just

exacerbated this decline in the competency of NGNs (Powers et al., 2021). This had an impact on the outcomes and safety of their patient care as they were not fully competent in all situations, which lead to a compromise in patient safety (Smith et al., 2022). Clinical competency differences can also be a strain on current RNs who must compensate for the lack of NGN's preparedness for their new professional role.

A recent research study was completed on advancing the nursing education mission for the future amidst a readily changing healthcare landscape. The researchers focused on a paradigm shift from cohort-based teaching/learning to personalized adaptive learning that needs to occur to address the continued decline in initial competency of NGNs. The paradigm shift helped to address the accelerated medical knowledge and innovation that nurses need to provide positive outcomes for their patients, which ultimately stresses that nursing practice is evolving faster than the education system can respond and adapt in their teaching to nursing students (Kavanagh & Sharpnack, 2021).

To emphasize the need for this paradigm shift, researchers analyzed results from the Performance-Based Development System test (PBDS assessment) representing more than 10,000 NGNs between the years of 2016-2022 that revealed a year-over-year decline in initial competency. The assessment tool is administered post-hire, but prior to orientation, and is used to evaluate clinical competency and ensure quality care of patients. According to this study, prior to the pandemic, the percentage of NGNs practicing at an acceptable level was at 11% in 2019. The data indicated that 14% of NGNs were assessed in the acceptable range, 29% failed to recognize a change or urgency in patient's status, and then 57% demonstrated opportunities for growth in the management of patient problems (rationale of nursing actions, selecting the proper

nursing interventions, and communicating of relevant data). In 2015, the acceptable level of new graduate nurses was at 23% and then in 2018 before the hit of the pandemic it was at 15% (Kavanagh & Sharpnack, 2021). These results demonstrate a steady decline in the percentage of nurses that were coming out of school practicing at an acceptable level of clinical judgment even before the pandemic disrupted their educational experience.

After a year of the pandemic-impact on nursing education, the acceptable practice level for NGNs fell to 9-8% in 2020. When even further subdivided into the April/May graduate range of the year 2020, where new graduate nurses would be most impacted, the level of clinical judgment competency at an acceptable level was at 7% (Kavanagh & Sharpnack, 2021). Thus, the percentage of NGNs practicing at the acceptable level, which was already on the decline before the pandemic, experienced an exacerbated decline in the percentage of NGNs that were practicing at the acceptable level, suggesting the need for alterations in the steps in preparing nursing students before graduation.

Another recent study examined the implications of an increasing practice gap in NGNs, the impacts of COVID-19, and how they impacted clinical competency leading to medical errors. The study discussed that the first major indicator of competency in NGNs is the NCLEX, which assesses the minimum knowledge, abilities, and skills needed to deliver safe, effective nursing care for a newly graduated nurse. The results of the NCLEX are a reflection of the quality of the education programs, as well as the competency of NGNs, in their transition to professional practice. Recently there has been a sharp decline in the passage rates of the NCLEX on graduates' first attempts. In the United States, the first-time pass rates in 2019 dropped to 88.18%, then in 2020, they continued to decrease to 86.57% and then significantly dropped to 82.48% in 2021.

According to the study, the greatest drop was seen in the fourth quarter of 2021 where the percentage of graduates that passed on the first attempt was 71.92% (Smith et al., 2022).

A second indicator discussed by the study is professional competency in the transition to practice period. Transition to practice is known as a new graduate's first year of nursing where they will undergo a period of adjustment, learning, and adapting to the new culture of their professional workplace. During this transition to the practice period, there is an increase in the incidence of errors of NGNs as they have a lack of fully developed situational awareness, as well as critical thinking skills, that experienced nurses possess. This is also an extremely overwhelming time for NGNs as they have feelings of doubts about their knowledge, stress in the loss of their student safety net, and nervousness in the understanding that they will become fully responsible for safe patient care (Smith et al., 2022). Furthermore, the first six months of transition to practice for NGNs is a critical period that ultimately becomes a decisive factor in their commitment to practice. During this period, NGNs become responsible for complex patient situations and are expected to manage their patient care at the same level as their more experienced coworkers. Once the pandemic struck, the quality and the length of the transition programs were compromised, further exacerbating the decline in competency.

Staffing shortfalls as discussed above also significantly increased the strain put on NGNs. It left NGNs deficient in competency to care for high acuity patients with higher than normal workloads and limited training due to the lack of translation to practice. This led to compromising situations such as hectic hospital environments, critical patient acuity, continuous donning/doffing of PPE, fatigue, and the urgency of any nurse to pass medications, ultimately leading to an increase in medication errors. These complex

situations in direct relation to the pandemic resulted in a staggering increased risk of harm to patients as well as healthcare workers under these continuous circumstantial strains (Smith et al., 2022). However, high medication error rates from NGNs are not new occurrences that came with the pandemic. The seminal *To Err is Human* report asserted that bad people are not working in healthcare, rather the problem is that good people are working in bad systems that must be made safer citing the 98,000 people that die annually as a result of medical errors (Smith et al., 2022). The COVID-19 pandemic exacerbated these assertions.

Pandemic Responses

March of 2020 marked the beginning of the COVID-19 pandemic. This was a period that was marked by national shutdowns throughout society. Schools were forced to move quickly to an online modality forcing students to alter their learning environments as well as learning methods. Educators had to rapidly develop creative ways to teach their students the required academic materials from a virtual setting. Nursing schools were forced to cancel in-person clinicals as the hospitals became grappled with the impact of the pandemic and an increase in patient cases.

In March of 2020, the Ohio Board of Nursing (OBN) offered guidance to pre-licensure nursing education programs scrambling with modality changes amid the pandemic. As a practice discipline, there were serious concerns regarding how to maintain program quality with the restrictions on clinical education. The directives from OBN stated that the COVID-19-emergency had significantly impacted the teaching methods and availability of clinical experiences for nursing programs. Thus, program administrators and faculty were able to seek alternative methods to provide their students

with laboratory and clinical experiences (Ohio Board of Nursing, 2020-b). It was necessary that the programs continue their instruction from an online-basis as the State of Ohio had initiated a statewide lockdown which prohibited non-essential workers from completing normal tasks, educational and occupational, in person. Nursing programs had to exercise judgment in making their decisions on the creativity of their solutions with their adapted learning environments while maintaining educational quality and promoting practice readiness. This was imperative in preparing students to enter the professional nursing role, as well as meet the nursing program's curricular objectives.

During this time of emergency in the spring of 2020, there was an estimate of 4,000 to 5,000 nursing education students who were in the last semester of their programs or just had completed their last semester and thus would be eligible to take the National Council Licensure Examination (NCLEX) (Ohio Board of Nursing, 2020-c). Current Ohio law requires newly graduated nursing students to take and pass the NCLEX in order to be licensed as a registered nurse. These exams are used by all the US states/territories to test the entry-level nursing competency of candidates for licensure. Due to the COVID-19 pandemic, testing sites experienced periodic closures and limited appointment spots, causing the NCLEX to continue to be unavailable to the majority of the candidates. This had a vital impact on the nursing workforce and hospitals as it held up the entry into practice for 4,000 to 5,000 additional nurses into the healthcare workforce.

In response to this delay, on March 27, 2020, Ohio Governor Mike Dewine signed into law the Coronavirus Omnibus Legislation (HB197). This law suspended, for the period of the COVID-19 emergency, the law that required an applicant for nursing licensure to have passed the NCLEX. The law stated that the OBN could issue a license

to a practicing RN applicant if they had completed their nursing education and met the remaining legal requirements including a criminal records check. The temporary license process was initiated by submission of a program completion letter from the applicant's education program, application for temporary licensure, and completion of a criminal records check. This letter of completion from the nursing programs was to ensure that the applicant had completed their program and had obtained the necessary education to engage in safe nursing practice, although they had not passed the NCLEX. The temporary license issued to applicants in this manner would be valid until whichever of the following dates would occur first: (1) the date that is ninety days after December 1, 2020; or (2) or the date that is ninety days after the duration of the period of emergency that was declared by executive order. Temporary licensure provided an interim solution at the peak of the pandemic related to staffing shortages. However, the issues of clinical judgment deficits and the academic-practice gap continued.

The combination of staffing shortfalls, clinical judgment deficiencies, and pandemic response-driven educational methods have all factored into the lack of competency and preparedness in new graduate nurses. Staffing shortfalls even before the pandemic led to an increased burnout in NGNs, as the lack of support and heightened responsibility led to an increased amount of stress, ultimately causing nurses to leave the profession. Finally, the pandemic led to a completely different method of instruction as well as an unprecedented law that allowed for NGNs to be hired without the passage of the NCLEX. Therefore, the COVID-19 pandemic drastically changed the educational methods, and process of licensure of nursing students causing a lack of competence and confidence as they graduated and transitioned to practicing nurses.

Research Aim

Quality nursing care is crucial in our society, including helping care for sick and hurting patients, providing them with education, and selflessly putting their needs in front of the nurse's own to provide compassionate and holistic care. As described above, the unexpected COVID-19 pandemic heightened the stress on this integral profession. It left NGNs transitioning to practice with an altered trajectory of preparation which resulted in them being launched into a professional role before many of them were ready.

Healthcare systems have been working on updating onboarding procedures to deal with ongoing deficiencies in the competency in NGNs. Just as the pandemic put additional stress on NGNs, additional stress was also felt by hospital staff development departments through the exacerbated concerns of lack of competency and readiness of new graduate nurses in onboarding. Hospital administration had to scramble to fill staffing positions which led to a compromise in maintaining a structured transition to practice program for NGNs and even allowed for the inclusion of non-NCLEX tested NGNs on the healthcare team, further exacerbating the stress of existing workers.

Therefore, it is important to evaluate how COVID-19 changed the methods in which NGNs received their education and participated in clinical hours concerning their lack of readiness for this heightened role. It is also important to look at what changes can be made to improve this lack of competency in NGNS as their lack of readiness in their skills has a direct impact on the care of their patients and the ability to provide selfless, compassionate, holistic care that their patients deserve. For this reason, an integrative literature review was completed to evaluate the impact COVID-19 had on NGNs'' competency in transitioning to practice when compared to NGNs before the pandemic.

The following research questions were used to guide this study: What is the perception of NGNs and their managers regarding their competency and preparedness in their transition with onboarding pre and during the COVID-19 pandemic? What are the current recommendations to mitigate the deficiencies noted in NGNs during the COVID-19 pandemic?

Methodology

An integrative literature review was completed to evaluate the available research concerning the perceptions of nurse managers regarding the competency of NGNs in their transition to onboarding pre and post COVID-19. An integrative literature review has direct applicability to practice and policy through presenting the state of science and contributing to theory development (Knafl & Whittemore, 2005). This approach allows for the inclusion of diverse methodologies, including experimental and non-experimental research, thus allowing for the inclusion of both qualitative and quantitative data. The inclusion of both qualitative and quantitative data is critical for looking into the perceptions of competency in NGNs pre and post COVID-19. Qualitative data provides insight into understanding the perceptions of the NGNs themselves, as well as their nursing managers on the transition. The inclusion of quantitative data provides insight into looking into the number of NGNs transitioning to practice that were competent in their skills during COVID-19 compared to those that transitioned pre-COVID-19. This literature review study follows the Knafl & Whittemore (2005) framework to guide the literature review through five stages: problem identification, literature search, data evaluation, data analysis, and the presentation of the findings. Overall, this framework

provides an efficient method of gathering, analyzing, and interpreting data that presents a comprehensive understanding of the problem of examination.

Problem Identification

The problem of the competency and preparedness of NGNs in their transition to practice as a result of the COVID-19 pandemic has been described above. A preliminary literature review was completed to confirm the research question and problem statement. There was a sufficient amount of both qualitative and quantitative primary research identified. The findings of this preliminary literature review came to support the scope of the problem statement as well as the appropriateness of an integrative literature review process in identifying major themes concerning the competency of transitioning new graduate nurses pre and post COVID-19.

Literature Search

A formal literature search was completed utilizing CINAHL, Medline, Business Source Complete, and Business Source Premier databases. The inclusion criteria consisted of: (1) sources described primary research with a focus on new graduate nurses' transitions to onboarding during the COVID-19 Pandemic; and (2) the perceptions of the nurse managers/educators and the NGNs themselves. The following search terms were entered into the database "covid-19 or coronavirus or 2019-to or sars-cov-2 or cov-19" and "new graduate nurses or new nurse or novice nurse." The results of the search were then limited to (1) published in English; (2) publication from the year 2020-to 2022.

The initial search yielded a total of 175 sources. A title review was then completed to further assess for inclusion based on excluding criteria such as duplicates, non-COVID-19 related, and non-new graduate nurses related. This resulted in the

narrowing of the list to 34 articles. Additional exclusion criteria were then applied during the abstract review which resulted in excluding periodicals, editorials, and sources that focused on a specific area of nursing care such as critical care rather than the broad scope of practice. This reduced the potential source list to 26 sources. Following this a research appraisal tool was used which reduced the potential source list to 10 sources. Finally, the reference lists for each article were reviewed for additional sources which led to the inclusion of 0 articles. Figure one depicts the literature search process.

A secondary search was completed on September 16, 2022 with the same conditions above . The initial search yielded a total of 211 total sources and 36 new sources. A title review was then completed to further assess for inclusion based on excluding criteria such as duplicates, non-COVID-19 related, and non-new graduate nurses related. This resulted in the narrowing of the list to 14 articles. Additional exclusion criteria were then applied during the abstract review which resulted in excluding periodicals, editorials, and sources that focused on a specific area of nursing care such as critical care rather than the broad scope of practice. This reduced the potential source list to 11 sources. Following this a research appraisal tool was used which reduced the potential source list to 8 sources. Finally, the reference lists for each article were reviewed for additional sources which led to the inclusion of 0 articles. Figure two depicts this secondary literature search process.

Figure 1

First Literature Search Strategy (4-1-2022)

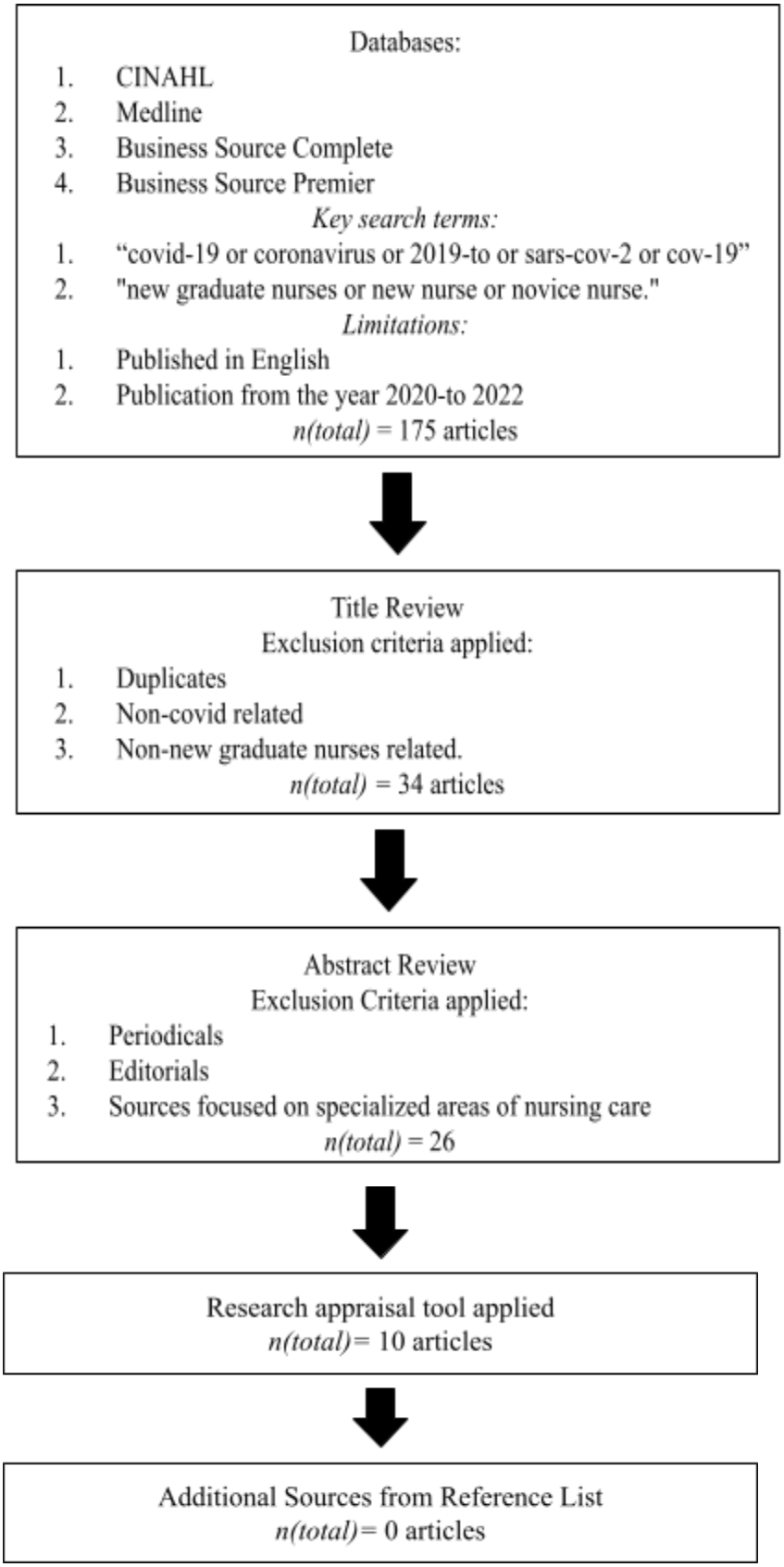
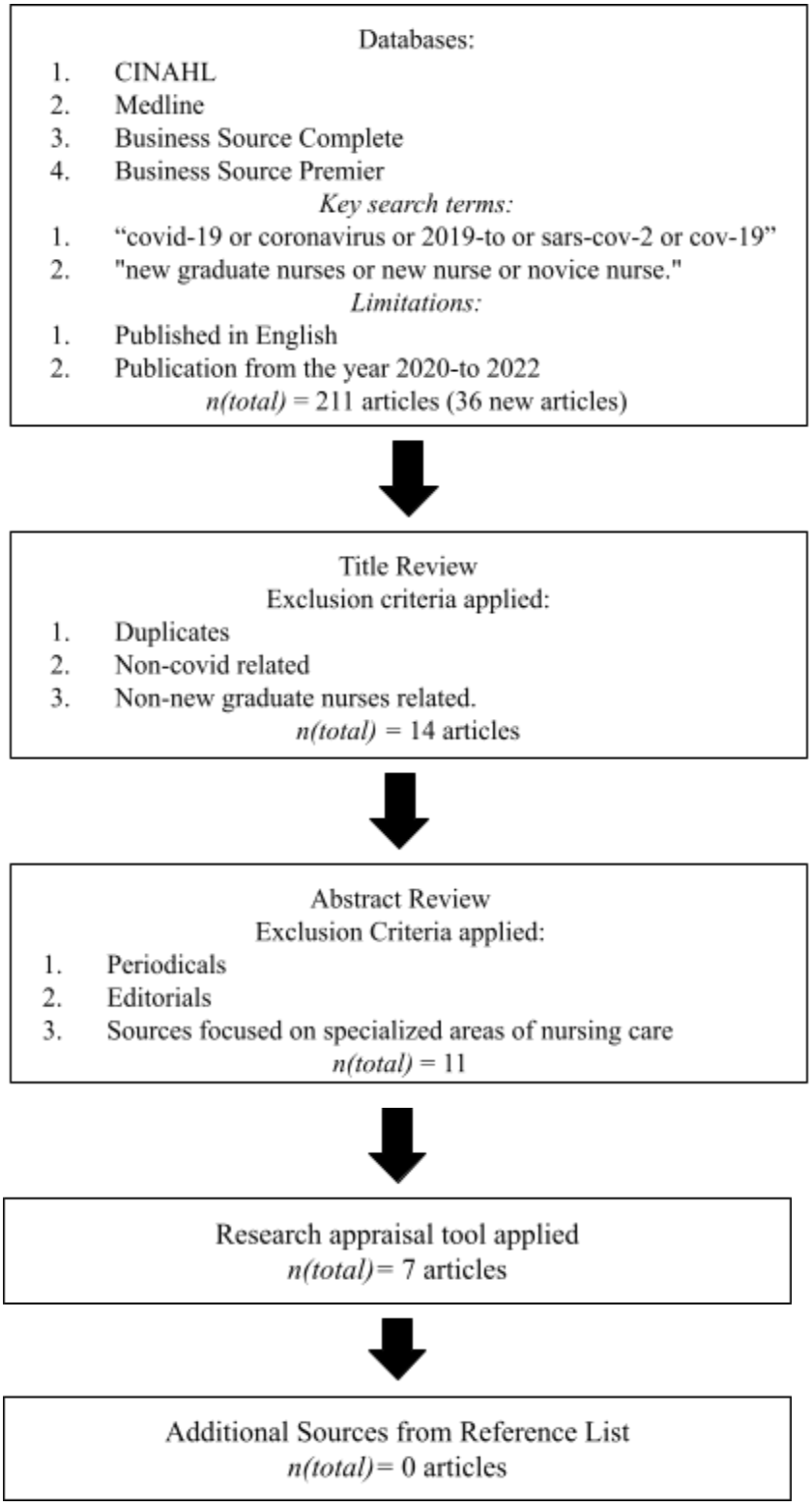


Figure 2

Second Literature Search Strategy (09-16-2022)



Data Evaluation and Analysis

The remaining 37 articles from both the initial and secondary literature searches were read over by two separate reviewers to ensure they met the inclusion criteria and to determine their level of evidence and quality. The data was pulled from each source and entered into a literature review chart that allowed for the reviewers to compare the sources and for data evaluation. The focus of the data consisted of the research designs of the articles, population samples, validity, results, the studies' strengths and weaknesses, and if it was a fit for the research questions. The organization of this data compiled into the literature search chart allowed for the efficient source comparison and evaluation of the themes.

After the compilation of the information into the literature search chart, critical appraisal tools were applied by the two reviewers to determine the overall level of evidence and quality of the sources. The tool allowed for a more in-depth look at the methods, validity, and results of the studies. The application of the critical appraisal tools led to the loss of 16 articles in the first study as shown above in figure 1 and the loss of 3 articles in the second literature search as shown above in figure 2. The final decisions and rationale for the inclusion of each article are included on the literature chart and appraisal tools in the Appendix. Each included article was then analyzed and examined below for the common themes.

Presentation of Findings

There were a total of 4885 participants that took part in the included studies from the first literature review completed. 116 were faculty members that work with onboarding and transitioning NGNs. 182 were experienced nurses that work with and

assist in the transition of NGNs. The remaining 4586 participants were new graduate nurses transitioning to practice during the surge of the COVID-19 pandemic. The aims of these studies were to (a) examine the experiences and perceptions of NGNs and their nursing managers on their transition to practice during the COVID-19 pandemic and (b) recommend strategies to improve clinical competency in onboarding NGNs, mitigating the deficiencies exacerbated by the pandemic.

The studies can be clustered based on (a) perceptions of NGNs/nurse managers and (b) recommendations. Studies with perceptions of NGNs and nurse managers on the educational deficiencies included: academic practice gap (n= 4), difficulties with onboarding (n=1), and issues in direct relation to COVID-19 (n=2). Studies with perceptions of the NGNs and nurse managers on the emotional aspect of NGNs' transition included: feelings of anxiety/fear/depression (n=2), and feelings of being overwhelmed (n=1). The studies are also clustered based on recommendations. Studies the recommendation providing NGNs with a supportive/accepting culture (n=1), educational structure/support courses (n=4), and a combination of educational and emotional support (n=5). The studies that were included from the first literature review are summarized in Table 1.

There were a total of 585 participants that took part in the included studies from the second literature review completed. All 585 of the participants were new graduate nurses working during the pandemic. 14 experienced COVID-19 during the first five years of working. 29 had 3-10 months of experience when COVID-19 hit. The remaining 542 had one or more of their semesters interrupted by COVID-19 and began working during the height of the pandemic. The aims of these studies were to (a) examine the

experiences and perceptions of NGNs and their nursing managers on their transition to practice during the COVID-19 pandemic and (b) recommend strategies to improve clinical competency in onboarding NGNs, mitigating the deficiencies exacerbated by the pandemic.

The studies can be clustered based on (a) perceptions of NGNs/nurse managers and (b) recommendations. Studies with perceptions of NGNs and nurse managers on the educational deficiencies included: academic practice gap (n=1), difficulties with onboarding (n=1), and issues in direct relation to COVID-19 (n=3). Studies with perceptions of the NGNs and nurse managers on the emotional aspect of NGNs' transition included: feelings of anxiety/fear/depression (n=1), and feelings of overwhelming (n=1). The studies are also clustered based on recommendations. Studies with the recommendation of providing NGNs with supportive/accepting culture (n=2), educational structure/support courses (n=2), and the combination of educational and emotional support (n=3).The studies that were included from the second literature review are summarized in Table 2.

Table 1

First Literature Search Included Articles

Study	Participants	NGN and Manager Perceptions	Recommended Onboarding Strategies
Plamondon et al., 2022	16 new graduate nurses working at Beth Israel Deaconess Medical center (large urban academic center)	Struggle of onboarding NGNs during the first surge of the COVID-19 pandemic. Nurse managers/leaders being called upon to have innovative ways to onboard	Utilization of flexible and creative solutions with a 3 phased approach to orientation in NGNs with specific guidelines
Kovancı, & Atli Özbaş, 2022	14 NGNs graduated from 8 different nursing schools done in Turkey (all cared for covid-19 patients)	Lack of support and guidance of NGNs in their transition to professional practice. Feelings of uncertainty, fear, anxiety, and helplessness	Nursing managers, policy makers, and senior nurses need to take NGNs under their guidance. They need to create a good culture of stability where NGNs feel safe to ask questions/for help
Grubaugh, Africa, & Mallory, 2022	Greater than 4100 participants from 13 states across the US that participated in the Versant TTP program between 2018 and 2021	There is a demanding staffing need and a widening academic practice gap stressing the need for practice ready NGNs	Nurse leaders need to give NGNs ongoing support and check in with them during the transition process. Standard preceptor models to ensure minimal variation in teaching as well as utilization of alternative assignments to answer questions
Badowski et al., 2021	100 nurses throughout the US (37 white, 20, Black, 20 Latinx, 14 Asian, 7 multiracial, 2 Native American)	NGNs are unprepared for professional practice related to virtual translation and lack of face-to-face clinical hours	Shift education to focus on themes of teamwork and communication, flexibility and critical thinking, leadership and using your voice, and advocacy and policy
Powers, Montegrico, Pate, & Pagel, 2021	116 Nurse Faculty from North Carolina	Perceptions of nurse preceptors of NGNs pre-pandemic in comparison to during the pandemic. Significant decrease in competency	Guidance to transition-to-practice programs addressing communication with physicians, ability to anticipate risk, prioritize, and conflict resolution
Casey, Oja, & Makic, 2021	15 nurses at three different stages of transition, participating in a 12-month graduate nurse residency program at a 525-bed level I trauma, safety-net, hospital in a metropolitan city in the US	Absence of self care during the pandemic, and how being a NGN is overwhelming, communication barriers worsen with masks, and the need to be flexible, but still have gratitude for being a nurse	Nurse leaders and managers need to create a supportive and educational foundation for NGNs'transition into professional practice
Crimson, Mansfield, Hiatt, Christensen, & Cloyes, 2021	82 BSN, RN-BSN, and DNP students who graduated between December 2019 and April 2020	Limited academic and workplace training leads to chaotic onboarding, licensure delays but still feeling prideful to be a nurse	NGNs receive support for a successful transition from educators and healthcare organizations
Smith et al., 2021	340 NGNs in their final semester of clinical practice at an academic medical center	Change to virtual clinical practices challenged NGNs transition to professional practice	Targeted clinical and emotional support for NGNs
Naylor, Hadenfeldt, & Timmons, 2021	13 NGN working in acute care settings during COVID-19 in Phoenix, Arizona.	Feelings of anxiety, depression, and PTSD, but still actively choose to be nurses	Nursing educational (crisis management, self-care etc.) and psychological interventions to support NGNs
Brown, Tisera, & Pagel, 2022	88 NGNs working during COVID-19 in a large urban academic acute care center	Academic practice gap due to NGNs not being exposed to all essential skills in school	Attending a skills session days to provide clinical practice

Table 2

Second Literature Search Included Articles

Study	Participants	NGN and Manager Perceptions	Recommended Onboarding Strategies
Ulmen, Witte, Speckhard, & Fenske, 2022	124 BSN RNs from the US, Australia, New Zealand, Canada, and the UKwho had at least one of their semesters interrupted by COVID-19	NGNs faced fear in their chaotic pandemic altered translation to practice ultimately causing a decrease in confidence. Nurse educators were forced to come up with a creative response to pandemic.	The development of real-life experiences in the virtual format leads to a gain in confidence in patient safety, communication/leadership skills, and support.
Aukerman et al., 2022	12 frontline nurses that graduated in 2020	Significant limitations in NGNs preparedness to practice in the year of 2020 in relation to shortened/absent clinical hours and onboarding. Taxing effect on their mental health.	More visible and accessible mental health support. Revision of academic framework to better prepare nurses mentally. Taking higher acuity patients during onboarding.
Halstead & Letourneau, 2022	103 prelicensure, baccalaureate nursing students at a public university in the west central region of Florida from March 2020 to May 2020	Due to Covid-19 there were varying responses from schools and hospitals in their education of NGNs. However, the implementation of a virtual clinical practicum helped to improve all areas of QSEN for NGNs.	Increased support for NGNs targeted at developing evidence-based practices and quality improvement competencies to better prepare them.
Bultas, & L'Ecuyer, 2022	56 new graduated bachelorette nurses from June 2020 to May 2021	Academic practice gap exacerbated by challenges of COVID-19 such as canceled clinicals, transition to virtual education, and shorter onboarding periods. Stressful experience for NGNs.	Academic and Health care settings need to provide support that improves the well-being, resilience, and adaptability of NGNs. Additional touchpoints with NGNs beyond the orientation period.
Jerome-D'Emilia, Suplee, & Linz, 2022	29 nurses working from March - May 2021, who had 3-10 months of experience when COVID-19 hit	Common themes NGNs felt are not being prepared, being thrown into an overwhelming role, making efforts to avoid infection, feelings of sadness for their patients, and feelings of not being prepared for all the new information/skills they had to learn.	Development of a team-like workplace inside and outside the hospital setting. Revision of orientation programs to include emergency management, disaster training, death and dying, and coping strategies.
Winslow et al., 2022	247 nursing orientees	The pandemic forced nursing managers/educators to alter transition programs to accommodate to the rapid onboarding, synchronous and asynchronous virtual training platforms, PPE limitations, and social distancing while still providing hands-on experiences.	Creative and innovative methods to onboard NGNs and provide guidance
Fernández-Basanta, Espremáns-Cidón & Movilla-Fernández, 2022	14 (twelve women and 2 men) registered novice nurses that experienced covid-19 within their first 5 years in Northwest Spain	Novice nurses have become more of a vulnerable group due to COVID-19 and their lack of support and uncertainty of an unknown illness. Increase in the academic practice gap	Self-care and social support were elements used to cope with exhaustion. Support not only for the novice nurse but also the senior nurses

NGN and Manager Perceptions

Educational Deficiencies

Academic Practice Gap

The perceptions of the NGNs and their managers in the first study in this section were there was a demanding staffing need for practice-ready nurses with a widening academic practice gap. This study aimed to evaluate the effectiveness of a Transition to Practice Program (TPP) in the competency validation of NGNs (Grubaugh, Africa, & Mallory, 2021). More than 4,100 NGNs from 13 states across the United States that participated in the Versant Transition to Practice Program between the years 2018 and 2021 participated in this study. The TPP is a year-long competency-based approach to assessing and validating the clinical practice of NGNs when combined with supportive components such as professional development, and self-care. Surveys were then collected from these NGNs at different stages from the beginning of their program up to five years into professional practice. These surveys were extracted from the Versant Voyager, Versant's web-based system, and used for this descriptive and comparative study. The results and recommendations of this study are further explained below under the heading *Combination of Educational and Supportive Culture.*

The perceptions of the NGNs and nurse managers in another study were that COVID-19 caused major shifts in nursing education, especially the shift to virtual learning and reduction in clinical experiences left NGNs overall less prepared for professional practice upon graduation. This study aimed to quantitatively describe and compare nurse faculty perceptions of readiness for the practice among the students who graduated pre-pandemic and those who will graduate during the pandemic (Powers et al.,

2021). A total of 116 Nurse Faculty from North Carolina participated in this study. Surveys were utilized to collect demographic, professional, and pandemic teaching experiences information. The Nursing Practice Readiness Tool (NPRT) was then admitted to collect nurse faculty perceptions of readiness for the practice among NGNs. It asked them to report satisfaction with their graduating students' proficiency level for 36-entry level nursing competencies with a 6-point scale. These 36 items were then grouped into six subscales including clinical knowledge, critical thinking, communication, professionalism, management of responsibilities, and technical skills. The results and recommendations of this study are further explained below under the heading *Educational Structure.*

The perceptions of the NGNs and nurse managers in a third study also acknowledged the widening academic practice gap in the onboarding of NGNs. The purpose of this study was to describe recent NGNs' perceptions of the impact of COVID-19 on their transition to practice (Crismon et al., 2021). 82 total participants, BSN (50), RN-BSN (9), and DNP (23) students who graduated between December 2019 and April 2020 participated in this study. An online survey was conducted and sent to these participants. The survey contained demographics, employment information, and free-response questions concerning the impact of COVID-19 on the participant’s transition experiences, post-grad plans, and overall perceptions of nursing. A qualitative descriptive approach to content analysis to synthesize and summarize the data was used. The study recognized three overarching themes expressed by the participants. First, 42 participants had themes of altered plans such as difficulty finding employment or having to change their desired area of nursing. Second, 38 participants had themes that there

were system-related stressors such as licensing delays, and chaotic onboarding. Finally, 27 participants expressed that despite all the difficulties there was still a feeling of pride in their profession. The results and recommendations of this study are further explained below under the heading *Supportive Culture.*

The perception of NGNs and nurse managers in another article in this study was that COVID-19 exacerbated the gap from nursing student to practice nurses, leaving many critical skills untaught in school. The purpose of this study was to discuss the challenges of onboarding NGNS during COVID-19 and how to combat them (Brown, Tiersa & Pagel, 2022). 88 NGNs working during COVID-19 in a large urban academic acute care center. The NGNs attended a skills session day and completed pre- and post surveys to rate their level of confidence in the same identified skills using a Likert scale. The Likert scale ranged from 0-3 (0= never performed, 1= not confident, 2= somewhat confident, and 3= confident). They performed 76 skills including, recognizing a stroke, nasogastric tubes, tracheostomy care, simulated code blue, and 12-lead electrocardiograms. The study found that each participant showed improved confidence ($p<.0001$) (Brown, Tiersa & Pagel, 2022). The results and recommendations of this study are further explained below under the heading *Educational Structure.*

The perceptions of the NGNs and nurse managers in another study are the COVID-19 pandemic exposed and increased the weaknesses of the healthcare system making NGNs more of a vulnerable group (Fernández-Basanta et al., 2022) This study aimed to highlight the experiences of NGNs in providing care during the COVID-19 pandemic. A qualitative study was conducted through the use of semi-structured interviews. These interviews were audio recorded, transcribed, anonymized, and then

analyzed in a phenomenological hermeneutic approach. 14 NGNs from two health areas in northwest Spain that experienced the pandemic within their first five years of practice were selected through non-statistical snowball sampling. The results and recommendations of this study are further explained below under the heading *Supportive Culture.*

Onboarding Difficulties

The first study described the perceptions of the NGNs and their managers regarding the difficulties of onboarding. The study aimed to create an NGN onboarding process that assesses competency and supports NGNs in their transition process (Plamondon et al., 2022). Sixteen new graduate nurses completing their senior year at a board-approved nursing program were hired into positions at Beth Israel Deaconess medical center, a large urban academic center, and participated in the study. The program was specifically designed to include a three-phase approach to orientation. The first stage consisted of care that ensured the NGNs were capable of completing the basic skills of nursing such as having an emphasis on safety, basic assessments, documentation, and use of basic equipment. Once the NGNs met the goals of this first stage they moved on to the second phase which consisted of skills of advanced learning (medication administration, emergency care, and electrocardiogram monitoring). Finally, the third phase and final phase guided orientation upon the NGN's successful passing of the NCLEX and transition to their new role. The items in this area worked on medication safety and autonomy in skills. Out of the 16 NGNs in the study, 15 passed the NCLEX transitioning to their new role and thus were part of phase three. Those that passed were given in a post-orientation survey that consisted of three demographic/work experience questions,

27 four-point Likert Scale questions, 3 "check all that apply questions' ", and 2 open-ended questions (Plamondon et al., 2022). In total 12 out of the 15 NGNs responded and participated in the survey. The results and recommendations of this study are further explained below under the heading *Educational Structure.*

The perceptions of the NGNs and nurse managers in another study are due to the COVID-19 pandemic, NGNs are entering into a rapidly changing environment for which they are not fully prepared (Aukerman et al., 2022) This study aimed to describe the lived experiences of the NGNs who transitioned to practice during the pandemic to gain an understanding of how to better prepare for similar situations in the future. A multisite qualitative phenomenological design was used in this study, looking at 12 frontline NGNs who graduated in the spring of 2020. Semi-structured interviews were done, and a thematic analysis was completed on the data. The results and recommendations of this study are further explained below under the heading *Combination of Educational and Supportive Culture*.

COVID-19 Specific Issues

The first study in this section describes the perception of the NGNs and their managers regarding COVID-19 Specific issues. The study aimed to qualitatively describe the implications of COVID-19 on nursing education answering the following question "What are the implications of the COVID-19 Pandemic for nursing education?" (Badowski et al., 2021, p 669). One hundred nurses throughout the United States completed the study protocol. The study sample consisted of a diverse participant pool which included White (37%), Black (20%), Latinx (20%), Asian (14%), multiracial (7%), and Native American (2%), as well as transgender/nonbinary nurses (2%). Interviews

were conducted by the study's principal investigator via telephone in the privacy of the participant's homes. Each interviewee contained the same open-ended questions lasting from 20-45 minutes. Formal data analysis was conducted following the completion of the interviews for this study. The results and recommendations of this study are further explained below under the heading *Educational Structure.*

Another study in this section describes the perception of the NGNs and their managers in regards to COVID-19 causing a disruption in the delivery method of nursing education that required modifications. The variations in education, rapid transitioning to virtual platforms, and NCLEX stressors the cohort of NGNs transitogin during the pandemic faced unique losses and gains that influenced their translation to professional practice. The study aimed to examine the impact of the pandemic and preparedness for professional practice of NGNs at an academic medical center (Smith et al., 2021). 340 NGNs representing 136 nursing programs from 38 states in the United States working at an academic medical center participated in this study. A mixed methods descriptive study was used focusing on how the clinical experiences loss or gains in the final semester affected the fears, concerns and recommendations for NGNs. The study contained seven questions (3 qualitative and 4 quantitative) related to clinical experience and preparedness perception. The questions aimed to look at the reflections OF NFNS on the changes to their clinical experience during their final semester of nursing school. The results and recommendations of this study are further explained below under the heading *Combination of Educational and Supportive Culture.*

The perceptions of the NGNs and nurse managers in another article is the COVID-19 pandemic altered the landscape in which NGNS translation from student to

practicing nurses. This study aimed to explore the effects of the pandemic on the experience of NGN (Bultas, & L'Ecuyer, 2022) A longitudinal, observational, descriptive study was used to collect data. Four Qualatrics surveys were sent via email from June 2020 to May 2021, each survey targeted a specific time period of the first year of practice for the NGNs. A survey was sent at 1 month, 3 months, 6 months, and 12 months after graduation. The initial survey was sent to 118 students who graduated from BSN programs at a private, midwestern Jesuit University in May-August of 2020. The initial survey looked at demographic information and information related to orientation, job search, licensure, and positive employers. Those that completed the first survey were given the option to receive the additional surveys at 3.6, and 12 months to which 37 participants agreed to. The additional surveys included questions more specific to how COVID-19 impacted their orientation and transition to practice. Both surveys contained a Likert scale and opened-ended questions. The results and recommendations of this study are further explained below under the heading Supportive Culture.

The perceptions of the NGNs and nurse managers in another article is that the COVID-19 pandemic has caused fluctuating educational experiences causing NGNs to enter the profession without the necessary competencies to provide optimal patient care (Halstead & Letourneau, 2022). This study aimed to look at a virtual clinical practicum as an effective strategy to increase confidence in students of six QSEN competencies. This study used a quasi-experimental pre and post-test design. This examined the changes in the student's self-assessment of each core competency following their participation in a virtual clinical practicum. This virtual clinical practicum focused on competencies that NGNs need for professional practice and the content provided consisted of the work of

the National Academy of Medicine, Joint-commission, National Council of State Boards of Nursing, and Robert Wood Johnson Foundation. Participants were recruited from a public university in the west central region of Florida with a total of 103 prelicensure, baccalaureate nursing students that chose to participate in this study. The results and recommendations of this study are further explained below under the heading *Educational Support.*

The perceptions of the NGNs and the nurse managers in another study are that COVID-19 forced changes in the graduate nurse orientation (GNO) programs causing a change from the original methods (Winslow et al., 2022). Thus, this study aimed to provide a new model of efficient and effective general nursing onboarding to support strategic nursing skills and knowledge during the pandemic. This study used structured interviews with key stakeholders, such as hiring managers, NPD staff, and NGNs/experienced nurses. The goals of these interviews were to gain insight from their feedback on the historic aspects of GNO models, opportunities gleaned from educational innovation forced by the pandemic, and the feedback in general of orientation. Surveys were collected on 247 nursing orientees and around 1,800 nurse orientees were surveyed over the prior year of 2019. The results and recommendations of this study are further explained below under the heading *Combination of Educational and Supportive Culture*.

Emotional Aspect

Anxiety/Fear/Depression

The first study in this section described the perceptions of NGNs and their managers as filled with anxiety, fear, and depression. The study aimed to explore the experiences of NGNs during the pandemic (Kovancı, & Atlı Özbaş, 2022). Fourteen

newly graduated nurses from eight different nursing schools with the following criteria, having started working in public hospitals after the announcement of COVID-19, having no previous work experience as a nurse, and having graduated in the last two years were reached using the snowball method. They then went through in-depth interviews on an online platform through the use of semi-structured questions. Each interview lasted for around 40 minutes in which the participants were alone and uninterrupted. Data was then analyzed using the MAXqda software program to come up with several themes and subthemes. The results and recommendations of this study are further explained below under the heading *Supportive Culture.*

Another study in this section described the perceptions of NGNs and their managers as NGNs transitioned during the pandemic and had to face stressful challenges such as complex environments, high nurse-to-patient ratios, and prioritization of patient care needs. The aim of the study was to describe the experiences of NGNs working in acute care settings during the pandemic(Naylor, Hadenfeldt, & Timmons, 2021). 13 NGNs working in the acute care settings during the outbreak of COVID-19 in Phoenix, Arizona participated in this study. They were interviewed for at least one hour via teleconference to account for social distancing over eight open-ended and eight broad demographic semi-structured interview questions. The data from this study was then analyzed and found eighth themes, dealing with death, caring for high acuity patients with limited training, which PPE will keep us safe?, difficulty working short-staffed, everything is not okay, support from the healthcare team, nursing school preparation for a pandemic, I would still choose nursing, The results and recommendations of this study

are further explained below under the heading *Combination of Educational and Supportive Culture*.

The perceptions of the nurse managers and NGNs in this study are that the COVID-19 pandemic led to the closure of clinical sites prompting nurse educators to use virtual clinical replacement experiences which had an impact on the readiness of NGNs' transition to practice. (Ulmen et al., 2022). This study aimed to investigate NGNs' readiness for practice after receiving virtual clinical replacement experiences during the pandemic. This study used the Casey-Fink Graduate Nurse Experience Survey to collect data on demographics, comfort level with skills, job satisfaction, role transition, work environment stress, and the impact of virtual clinical experiences on the transition to practice. A total of 124 NGNs from the United States, Australia, New Zealand, Canada, and the United Kingdom participated in this study. Approximately 48% of the participants spent greater than half of their last semester before graduation experiencing some sort of virtual clinical simulation. The results and recommendations of this study are further explained below under the heading *Educational Structure.*

Overwhelming

The perceptions of the NGNs and nurse managers in this section were that transitioning from nursing student to professional nurse is a period of stress and role adjustment and the effects of transitioning during the pandemic caused this to be a widely overwhelming period for NGNs. This study aimed to describe the lived experiences of NGNs transitioning to practice during a pandemic (Casey, Oja, & Makic, 2021). Fifteen nurses at three different stages of transition participated in a 12 -month NGN residency program at a 525-bed level I trauma safety-net hospital in a US Metropolitan city and

took part in this study. The researchers conducted three focus group interviews to facilitate a deeper understanding of the NGNs' experiences transition during the pandemic. The participants were cohorted by months of experience which allowed them to look at the experiences in comparison to what phase of transition they are on. The focus groups consisted of demographics, and then a semi-structured interview was used to stimulate group discussion. Data were then analyzed using Van Manen's Hermeneutic phenomenological reflection. The results and recommendations of this study are further explained below under the heading *Combination of Educational and Supportive Culture.*

The perceptions of the nurse managers and NGNs in the final study in this section is that NGNs often feel overwhelmed by the stress of transitioning to a new professional role and the pandemic came to exacerbate these feelings (Jerome-D'Emilia, Suplee, & Linz, 2022). A qualitative descriptive design that used a purposive sampling to recruit a diverse group of nurses within 2 years post-graduation from nursing school was used in this study. 29 nurses went through in-depth semi-structured interviews. These interviews were then coded and analyzed using thematic analysis. The results and recommendations of this study are further explained below under the heading Combination of Educational and Supportive Culture.

Recommended Onboarding Strategies

Supportive Culture

The first study found three themes and eight sub themes from their data analysis. Their three main themes included (1) self-assessment of the NGNs, (2) attitudes toward their new jobs, and (3) attitudes toward the COVID-19 pandemic. Based on these themes they recommended that nurse managers, policy makers, and senior nurses take NGNs

under their guidance as well as create a good culture of stability in which NGNs feel safe to ask questions and for help (Kovancı, & Atlı Özbaş, 2022). NGNs need peer and colleague support as they navigate this new and stressful environment of transitioning. Their colleagues have more experience in care and thus can help them navigate this journey. NGNs also need acceptance, support, and encouragement from their colleagues to promote positive outcomes in their translation and care during such a stressful time. Finally they need supportive guidance and psychological support on how to navigate the rapidly changing healthcare environment as well as the fears of the pandemic.

The results of the first survey included a response rate of 47% (56/118) in which 53.7% of these participants had taken the NCLEX with 100% of them reporting passing, and 81.31% reporting having a job. The participants' perceptions of the impact of COVID-19 were positive in their desire to still be a nurse; however, their perceptions were negatively impacted in terms of their experience as an NGN, confidence, and concern for their health. At 3 months 37 links were sent with 29 participants responding. Of these participants 96.55% responded that they passed the NCLEX and 93.1% were working as a nurse, again they reported positive feelings about the desire to be a nurse and negative feelings about their confidence and risk for personal health. By the six months, 37 links again were sent with 22 participants responding. Of these participants, 27.6% reported considering a job change concerning burnout, lack of support, and desire for a different population of patients. Finally, by the 12-month survey 37 links were sent with 15 responses. At this point, 2 participants had changed hobs, and 8 participants were thinking about changing jobs concerning poor staffing, stress, and no longer wanting to work beside (Bultas, & L'Ecuyer, 2022). The recommendations that come out of this

study include creating a positive workplace climate with support for NGNS as well as the continuation of orientation programs to improve the experiences of NGNs. Peer relationships, supportive climates, and targeted emotional support have all been found to have an impact and are essential for NGNS. It helps NGNs in developing a balance between their personal and professional life. Finally, COVID-19 highlighted the importance of translation to practice and orientation programs and the need to continue these with alterations to adapt to pandemic-related changes.

After analyzing the narratives of this study some main themes were identified: (1) transitioning to a hostile, unknown, and uncertain clinical setting from inexperience, (2) invisible wounds because of being a front-line nurse, healing to return to the front line (Fernández-Basanta et al., 2022). The recommendations from this study stem from the uncertainty of the pandemic and the lack of support NGNs received while working during the pandemic. Self-care and social support are elements needed to cope with the exhaustion of working as this is where the participants in this study turned. There need to be strategies to address the emotional care of NGNs as well as teaching and learning approaches to help bridge the practice gap. Lead nurses can facilitate the transition of NGNs by providing support and guidance to the senior nurses transitioning them.

Educational Structure

The first study in this section recommended the utilization of flexible and creative solutions onboard with a three-phase approach to the orientation of NGNs with specific guidelines (Plamondon et al., 2022). The goal of the program was to onboard the NGNs promptly to support the staffing demands of the medical center while also balancing the needs of providing the NGNs with a safe environment to have meaningful experiences

before entering into professional practice. Some of their recommendations are that nurse leaders need to find innovative ways to respond to sudden changes that occur in their environment such as the COVID-19 pandemic. Second, they need to be flexible to pivot to create solutions to challenges in their ability to educate and onboard NGNs. Finally, there needs to be the implementation of specific guidelines in the onboarding process such as the utilization of communication, and working with only one preceptor the entire time to create stability for the NGN.

Another study recommended the need for a shift in education in focusing on the four main themes (1) teamwork and communication, (2) flexibility and critical thinking, (3) leadership and using your voice, and (4) advocacy and policy (Badowski et al., 2021). The study stressed the importance of utilizing experimental learning experiences in community/public health to foster these themes of leadership, communication, and advocacy skills development as per outlined in The Future of Nursing 2020-2030: Charting a Path to Achieve Health Equity. Nursing educators need to heed this paradigm shift in their education as the need for developing NGNs with the ability to think critically, collaborate, and lead during times of crisis such as the pandemic is evident now more than ever. They need to focus more on developing nurse leaders who can adapt quickly to fluid clinical situations rather than have nursing students that have information hardwired into their heads. Furthermore, it is also important for nurse educators to develop strategies that help prevent stress and burnout for their well-being as well as the NGNs. Teaching self-care is critical when faced with stressors of high-risk situations.

A third study recommended TTP focus on addressing key educational areas such as communication with physicians, the ability to anticipate risk, prioritize and conflict

resolution (Powers et al., 2021). In their study 21 items whose mean score decreased to less than 4.50 with one decreasing to 3.97, communication with physicians. Communication with Physicians thus requires more special attention and is a reflection of decreased clinical experiences. This is also reflected in areas that decrease in mean score by greater than 0.70 such as technical skills (medication administration, using clinical technology, and performing psychomotor skills). Thus, it is important for nurse faculty who are working with NGNs to take into account the widespread loss of clinical experiences as well as understand what areas to target during their translation. The use of NPRT scale can further be used by nurse faculty to determine what areas to target.

Another study in this section recommended that NGNs attend a skills session day to provide them with extra clinical practice in specialized areas of need (Brown, Tiersa & Pagel, 2022). Thirty percent of the participants noted that they did not have the opportunity to perform 21 out of the 76 skills before the end of the orientation. The most underperformed skills were code stroke process, chest tube drain setup, patient-controlled analgesia pump management, and central line maintenance and removal. The study found that it is evident that NGNs are not exposed to all the essential skills upon graduation and orientation. However, nurse faculty/managers must invest in the future generations of nursing preparing them, reducing reality shock, and increasing retention. Thus, offering a skills day to help bridge the gap in clinical practice has been proven to increase confidence in preparation for professional practice.

The results of another study showed that the virtual clinical replacement experience was statistically significant with greater confidence in providing for patient safety, recognized support in the workplace, and stronger professional

communication/leadership skills (Ulmen et al., 2022). The skills that the participants were the most uncomfortable with were critical care skills (mechanical ventilation, chest tube management, and coding a patient) with 51 participants. Followed by tracheostomy care with 24 participants and intravenous starts with 22 participants. Thus, this study recommends that these areas become focal points of instruction and nurse educators/managers continue the development of real-life experiences in the virtual format. These lead to a gain in confidence in areas such as patient safety, and communication/leadership. and support. Therefore, this study found that participation in virtual activities can lead to a reduction in anxiety and an increased self-confidence leading to a positive impact on NGNs' transition to practice.

The results of another article in this study were that the replacement of in-person clinical experiences with a virtual clinical practicum was an effective strategy to enhance the student's scores on all six of the QSEN competencies (Halstead & Letourneau, 2022). The results of this study found that the participant's scores in evidence-based practice and quality improvement were statistically lower than the other four competencies. This is consistent with other studies that show nursing students often lack the confidence and skills to implement quality improvement into their professional practice. Thus, this study recommends that nursing faculty and professional development practitioners invest in support targeted at developing evidence-based practices and quality improvement competencies, such as this virtual clinical practicum. This virtual clinical practicum is a great tool to implement and it can be used both during onboarding and as part of ongoing career development for nurses across the healthcare system.

Combination of Educational and Supportive Culture

The first study in this section recommended that Nurse leaders give NGNs ongoing support and continually check in during the transition process. This is even true for NGNs, like the ones in the study that participate in a TTP as NGNs can still feel unsure about their abilities to practice professionally on their own related to limited clinical experiences. Especially, in a time such as COVID-19 which presented NGNs with exacerbated stress, workload, and unforeseen circumstances, support from their coworkers is critical. Another recommendation is the need for standard preceptor models to ensure minimal variation in teaching. Precepting is already a stressful experience for NGNs as they begin to practice without the safety net of their instructors and it becomes even more stressful when they are taught different things dependent on their preceptor. The use of a standard model helps to minimize variation and allow for a more supportive environment for NGNs. Finally, the utilization of alternative assignments on days off can be used to answer NGNs' questions they may have (Grubaugh, Africa, & Mallory, 2021).

Another study in this section recommended the need for NGNs to receive support for a successful transition from educators and healthcare organizations (Crismon et al., 2021). The stress of the COVID-19 Pandemic exacerbated the already existing stress of NGNs' first-year transition to practice. The first year of nursing practice is considered a year of growth, and thus these novice nurses need to experience confidence in their skills. When they experience stress, and lack of control due to an increased workload, and unforeseen circumstances, it can lead to a decrease in autonomy which is a key indicator of workplace satisfaction. The study recommends that nurse educators need to be prepared for unforeseen circumstances that alter the environment of education to enable

the successful onboarding of NGNs when these events occur. Further, nurse educators need to collaborate with employers to ensure that NGNs transitioning receive the continued education and mentoring they need during their first year. This can be accomplished through residency programs which research has proven to help to decrease stress by helping to bridge the academic practice gap and supporting NGNs through their transition as mentioned above (Crismon et al., 2022).

Six themes were found including (1) being new and overwhelmed, (2) the need to be flexible, (3) pandemic knowledge, (4) communication challenges, (5) being a COVID-19 nurse, and (6) self-care. From these themes the study recommends that nurse leaders and managers create a supportive and educational foundation for NGNs during transition to professional practice (Casey, Oja, & Makic, 2021). This is vital as the body of nursing knowledge and skill requirements for NGNS is growing at a rapid pace. Researching what is being taught at the undergraduate level and comparing that to the body of knowledge that is needed to adjust curriculum can help better equip NGNs making their transition more seamless.

A third study recommended targeted clinical and emotional support for NGNs. (Smith et al., 2021). The overarching theme of the study was the need for a welcoming and supportive environment to increase the confidence of NGNs in fulfilling their professional role as nurses. There is a clear need for healthcare organizations to provide a supportive environment for NGNs in the form of additional patient contact and simulation during their orientation period. Secondly, academic partners need to continually utilize resources such as virtual simulation or online clinical hours when they are faced with challenges that might have not been previously explored before the

pandemic. Finally, for NGNs, their feelings of being overwhelmed, fearful of making mistakes, and burnout are all things commonly felt by NGNS even before the pandemic. Thus, they need to have the willingness to learn, and the ability to receive constructive criticism to allow them to have a successful transition from student to professional nurse.

Another study in this section recommended more extensive nursing education on subject areas such as crisis management and self-care, as well as psychological interventions to support NGNs (Naylor, Hadenfeldt, & Timmons, 2021). First, it recommended that NGNs receive support from their colleagues that understand the experience of caring for extremely ill patients, as this can help them through the process. Another recommendation is that nursing education focuses on providing NGns with resources that deal with pandemic-related stressors, crisis management, post-clinical debriefing, self-care, and strong team communication. Finally, there are benefits from building time into the end of shifts for mandatory debriefing to support the mental health of all nurses.

The results of another study in this section were the emergence of six themes: fear, emotional conflict, self-doubt, communication barriers, alone, and finding the positive (Aukerman et al., 2022). In terms of recommendations, the NGNs themselves recommend that mental health support be more accessible and visible to them in the practice setting. Academic educators also need to make revisions to their curriculum to enhance resilience and mental preparation concerning practice during the aftermath of the pandemic. Another area for change is during the orientation period in which the NGNs wished to take higher acuity patients so they could experience caring for them alongside their mentors. Thus, the mental well-being of these frontline NGNs must not be ignored,

instead, it should be used to come up with strategies to prepare future NGNS for high-stress clinical settings. These new strategies will help to support nurses' well-being as well as the communities they are to serve.

The results of another study found six main themes and multiple sub themes from their data. The six main themes included: (1) we were not prepared, (2) I was just thrown in, (3) It was so sad, (4) we did the best we could, and (5) I learned so much (Jerome-D'Emilia, Suplee, & Linz, 2022). These themes echoed what the nurses who participated in this study expressed such as feelings of fear, weariness, exhaustion, being overwhelmed, and distress. Based on these results this study recommends that nurse managers listen to the needs of NGNs to retain them in the profession avoiding an even greater nursing shortage in the future. The needs of the NGNs include the guidance and support of coworkers in the development of a team-like workplace as well as checking in on each other outside of the workplace. Another thing is the importance of spending more time on the topic of death and dying with nursing students with the use of scenarios based on the lived experiences of nurses using role-play and immersion experiences. Finally, hospitals should include in their orientation an opportunity for NGNs to listen to nurses' experiences from the pandemic in how they adapted, how they addressed the family's needs, and how they dealt with their own self-care needs and the stress they dealt with every day.

The results of another study are that the satisfaction results from approximately 1,800 nurse orientees surveyed found an average of 4.1 out of 5.0 on a Likert scale with the previous GNO program. The overall satisfaction of the new GNO program yielded an average rating of 4.7 on a 5.0 Likert scale. This demonstrates improved satisfaction with

the new GNO program from newly hired NGNs and experienced nurse participants (Winslow et al., 2022). The new program also yielded 100% of the participants who agreed or strongly agreed with the following areas, obtained essential skills to bring clinical orientation, the safety of the learning environment, knowledgeable instructors, and benefit of the information. Based on these results this study recommends that nurse educators and managers continue to implement creative and flexible ways to orient NGNs. The use of GNO programs is suggested as it provides NGNs with improved confidence in critical skills as well as gives them a supportive environment to begin their transition to professional practice.

Discussion

Although variations in the type of nursing, location in the world, and degree of impact of COVID-19 in the articles, several common themes emerged in the perceptions and experiences of New Graduate Nurses and their managers concerning working through the COVID-19 pandemic. First, a lack of needed support and guidance from nursing managers and experienced RNs during NGN's transition to professional practice lead to negative outcomes. Second, an increase in NGNs' fear and self-doubt led to a decrease in their competency and confidence from graduation from nursing school to transition to professional practice seen from both the perspective of the NGNs themself and their nursing managers. Third, there was a lack of structured and supportive transition to practice periods for NGNs which left them underprepared for their independent professional practice. Fourth, there is a need for the implementation of educational courses geared towards the needs of NGNs and special situations, such as infection control nursing to help bridge the academic practice gap. Finally, stress, poverty

of mental health, and lack of self-care were at the forefront of issues NGNs faced while working through the pandemic.

Application of Evidence to Practice

The perceptions and recommendations of many nurse managers, educators, instructors and NGNs went into the research of these studies. This was necessary to find the relevance and effectiveness of their recommendations as well as describing their lived experiences. There are several ways in which this knowledge can be and should be used in future education and orientation of nurses. It is evident that these recommendations and knowledge brought forth due to the COVID-19 pandemic should be used to inform clinical decision making and educational curriculum to lead to positive outcomes in the confidence and competency of NGNs.

There are many ways in which I can apply this knowledge and recommendations to my future professional practice. First, it is evident from almost every article that mental health is a vital aspect during the onboarding stage. Oftentimes this aspect of nursing is neglected as NGNs as transitioning to the professional role comes with many idealized opportunities. For instance with the nursing shortage hospitals are offering all kinds of bonuses for picking up extra hours and shifts during the week on top of the normal three 12 hour shifts which is incredibly inviting for NGNs who are looking to make extra cash but at what cost do these extra hours take on their mental health. After completing this research I can apply this knowledge and consider my mental health before I am to take on extra work that may be more detrimental than beneficial in the long run. Another take away from this research is the importance of self-care. Throughout the articles the pandemic served to highlight the lack of self-care strategies

that NGNs utilize and how it leads to negative outcomes. As I begin to transition as a NGN I can take into consideration the importance of creating relationships with the nursing team and finding ways to check on one another both during work and outside work. Finally, in the long run working as a professional nurse, I may come across the opportunity to onboard a NGN or even be a clinical instructor. I can utilize these recommendations to provide support and guidance to the students and NGNs that I will work with. I have the opportunity to utilize this research to make a difference in the confidence and knowledge of the future generations of nurses.

Limitations

Even though the 17 articles in the two literature searches were critically appraised there still exist some limitations within this study. First, the basis of many of these articles was qualitative. This is great in terms of answering the two research questions that were posed as the qualitative research aided in hearing directly from the perspective of the NGNs and the nurse managers. However, when it comes to the validity of the articles, the lack of numerical backup leads there to a lack of validity in the findings of the utilized studies. This leads to a lack of being able to extend these results to a broader population of NGNs and nursing education. Secondly, there were several studies from both the first and second literature searches that had small sample sizes. This again leads to a lack of validity in the results as well as the ability to extend the results to the whole population of new graduate nurses. In the first literature search, there were a total of four articles that had small sizes of less than 20 participants, and then in the second literature search, there were three studies that had sample sizes of less than 50 participants. Finally, there was a lack of consistency in the area of nursing care in which these studies were

conducted. The studies jumped around from critical care nursing to emergency nursing, to med-Surg nursing as well as other specialty areas. As in many other professions, there is a significant difference in the care and needs of new graduate nurses depending on what area they are working in. Thus, this limitation poses a lack of coherence in the recommendations from the studies.

Recommendations for Future Study

There are many positive areas of future study and research to improve nursing education and onboarding posed by these studies. First, it is evident that transition to practice programs aid in closing the academic practice gap of NGNs as they transition to professional practice. With the hit of the pandemic, many of these programs were not able to run at full capacity with in-person education and hands-on work. However, the pandemic prompted the need to research these programs looking at what works and what does not to reshape them for better education in a post-pandemic world. Looking more into the transition to practice programs and altering them based on the highlighted declines in NGNs' competency from the pandemic would be an excellent course of future study for nurse leaders and educators.

Secondly, the implementation of support courses throughout an NGN's onboarding period will help to provide them with knowledge gap areas that the pandemic introduced. One potential subject for a support course would be infection nursing, this would address areas such as how to don and doff PPE, how as a nurse to stay safe and how to keep patients safe from infection, and the emotional aspect of mental health. A second potential topic would be how to deal with patient deaths when their family is not there to support them. This was a huge impact area during the pandemic as many of the

patients had to die without their families with them, leaving just their nurse with them. This is hard on the patients as well as the nurse that might not know exactly how to handle this patient for their patient but also for themselves afterward.

Finally, it is important to look at nursing care after the pandemic comes to wind down. How has nursing care changed since working and changing dynamically throughout COVID-19? Are there any changes that have been made for the positive? For the negative? And most importantly what areas have been highlighted that nurse educators and nurse leaders can change for the positive for future generations of NGNs?

Conclusion

The COVID-19 pandemic came to present many challenges worldwide, hitting the nursing world especially hard. It came to exacerbate already declining deficiencies noted in NGNs, highlighting a need for change. It continued to widen the academic practice gap NGNs struggle with upon graduating from nursing school to transitioning to professional practice. It also continued to drop the percentage of NGNs that practiced at the acceptable level drastically. COVID-19 was a time that called for unprecedented working conditions for nurses. It led to severely short-staffed hospitals, an increase in burnout, as well as permitting NGNs to work without the passage of the NCLEX. These tumultuous times only led to poor patient outcomes as well as the increasing poverty of mental health among these nurses.

Despite the many negative outcomes of the pandemic, it provides nurse leaders and managers with positive recommendations to enhance education for future generations of nurses. It highlighted the areas that NGNs struggle with and where they could thus improve how nurses are to receive their education. Greatest of all it advocated for more

support and guidance along the onboarding journey especially in terms of promoting self-care and good mental health practices. Therefore, the pandemic caused unprecedented anxiety-ridden conditions for new graduate nurses, but also managed to highlight positive recommendations to only future strengthen the education of nurses.

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Does this evidence answer the EBP question?
☒ Yes → Continue appraisal ☐ No → STOP, do not continue evidence appraisal

Article Summary Information

Article Title:
The Implementation of the Graduate Nurse Role to Support Nursing Staff During the Covid-19 Pandemic

Author(s): Pladamon et al.	Number: 0887-6274
Population: new graduate nurses Size: *n* = 16 Setting: Beth Israel Deaconess Medical center (Boston, Massachusetts), large urban academic medical center	Publication date: 2022

Complete after appraisal

Evidence level: Level II
Quality rating:

Study findings that help answer the EBP question:
- description of the development and implementation of an orientation program for NGNs during the first surge of the COVID-19 pandemic
- 3 phase approach to orientation in NGNs →begin upon initial hire and end after they transition to their RN position
- shows way in which NGNs were successfully on boarded during the covid-19 pandemic

Article Appraisal Workflow

Is this study:

☐ **QuaNtitative** (collection, analysis, and reporting of numerical data)
Numerical data (how many, how much, or how often) are used to formulate facts, uncover patterns, and generalize to a larger population; providing observed effects of a program, problem, or condition. Common methods are polls, surveys, observations, and reviews of records or documents. Data is analyzed using statistical tests.

☒ **Go to Section I for QuaNtitative leveling**

☒ **QuaLitative** (collection, analysis, and reporting of narrative data)
Rich narrative data to gain a deep understanding of phenomena, meanings, perceptions, concepts, and experiences from those experiencing it. Sample sizes are relatively small and determined by the point of redundancy when no new information is gleaned, and key themes are reiterated (data saturation). Data are analyzed using thematic analysis. Often a starting point for studies when little research exists; may use results to design empirical studies. Common methods are focus groups, individual interviews (unstructured or semi-structured), and participation/observations.

☒ **Go to Section II for QuaLitative leveling**

☐ **Mixed methods** (results reported both numerically and narratively)
A study design (a single study or series of studies) that uses rigorous procedures in collecting and analyzing both quaNtitative and quaLitative data. *Note*: QuaNtitative survey designs with open-ended questions do not meet criteria for mixed methods research because those questions are not approached using strict quaLitative methods. Mixed methods studies provide a better understanding of research problems than using either a quaNtitative or quaLitative approach alone.

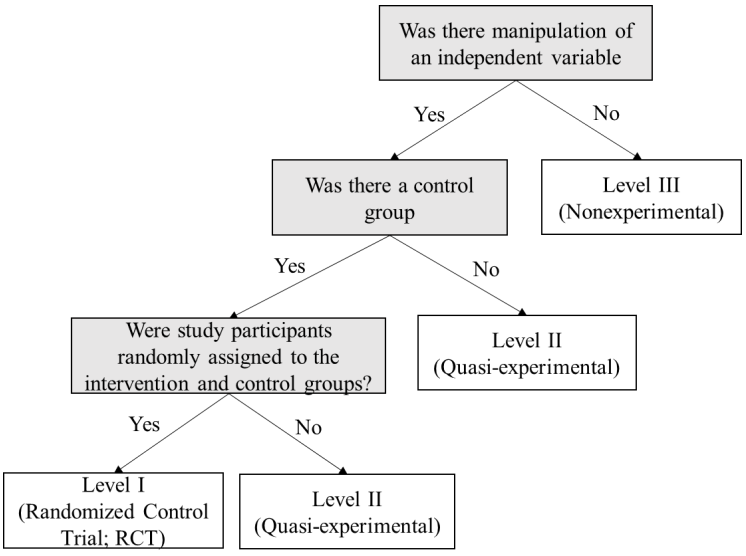
☒ **Go to Section III for Mixed Methods leveling**

Section I: QuaNtitative Appraisal

A Is this a report of a single research study?

☐ Yes → Continue to decision tree ☐ No → Go to Section I: B

Level



Level I studies include randomized control trials (RCTs) or experimental studies

Level II studies have some degree of investigator control and some manipulation of an independent variable but lack random assignment to groups and may not have a control group

Qual

After determining the level of evidence, determine the quality of evidence using the considerations below:

Does the researcher identify what is known and not known about the problem?	☐ Yes	☐ No	

i t y	Does the researcher identify how the study will address any gaps in knowledge?	☐ Yes	☐ No	
	Was the purpose of the study clearly presented?	☐ Yes	☐ No	
	Was the literature review current (most sources within the past five years or a seminal study)?	☐ Yes	☐ No	
	Was sample size sufficient based on study design and rationale?	☐ Yes	☐ No	
	If there is a control group: ● Were the characteristics and/or demographics similar in both the control and intervention groups? ● If multiple settings were used, were the settings similar? ● Were all groups equally treated except for the intervention group(s)?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No	☐ N/A ☐ N/A ☐N/A
	Are data collection methods described clearly?	☐ Yes	☐ No	
	Were the instruments reliable (Cronbach's α [alpha] ≥ 0.70)?	☐ Yes	☐ No	☐ N/A
	Was instrument validity discussed?	☐ Yes	☐ No	☐ N/A
	If surveys or questionnaires were used, was the response rate ≥ 25%?	☐ Yes	☐ No	☐ N/A
	Were the results presented clearly?	☐ Yes	☐ No	
	If tables were presented, was the narrative consistent with the table content?	☐ Yes	☐ No	☐ N/A
	Were study limitations identified and addressed?	☐ Yes	☐ No	
	Were conclusions based on results?	☐ Yes	☐ No	

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence. **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence. **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.

Record findings that help answer the EBP question on page **1**

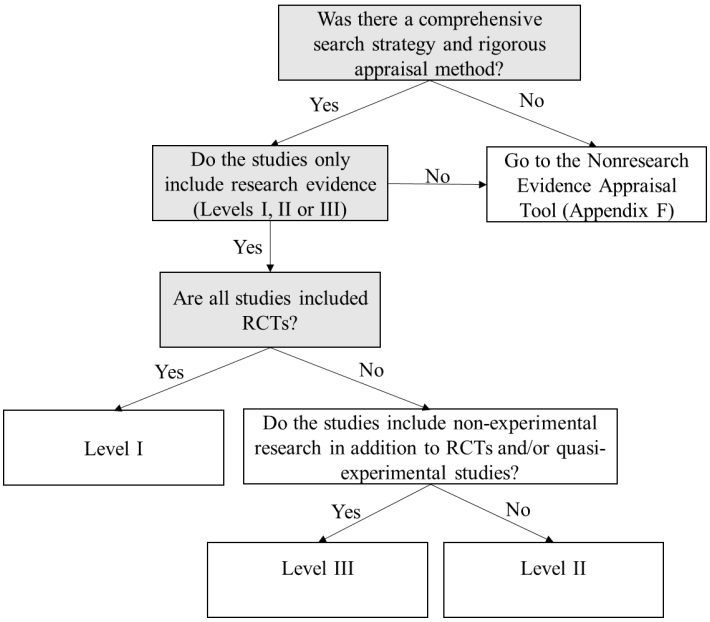
Section I: QuaNtitative Appraisal (continued)

B Is this a summary of multiple sources of research evidence?

☐ Yes → Continue to decision tree

☐ No → Use the Nonresearch Evidence Appraisal tool ☐ (Appendix F)

Level



Quality

After determining level of evidence, determine the quality of evidence using the considerations below:		
Were the variables of interest clearly identified?	☐ Yes	☐ No
Was the search comprehensive and reproducible? ● Key terms stated ● Multiple databases searched and identified ● Inclusion and exclusion criteria stated	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
Was there a flow diagram that included the number of studies eliminated at each level of review?	☐ Yes	☐ No
Were details of included studies presented (design, sample, methods, results, outcomes, strengths, and limitations)?	☐ Yes	☐ No
Were methods for appraising the strength of evidence (level and quality) described?	☐ Yes	☐ No
Were conclusions based on results? ●Results were interpreted ●Conclusions flowed logically from the research question, results, and interpretation	 ☐ Yes ☐ Yes	 ☐ No ☐ No
Did the systematic review include a section addressing limitations and how they were addressed?	☐ Yes	☐ No

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; recommendations consistent with the study's findings and include thorough reference to scientific evidence **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
	Record findings that help answer the EBP question on page **1**

Section II: QuaLitative Appraisal

A Is this a report of a single research study? ☒ Yes ☐ This is Level III evidence
☐ No ☐ Go to Section II: B

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Was there a clearly identifiable and articulated: • Purpose? • Research question? • Justification for design and/or theoretical framework used?	☒ Yes ☒ Yes ☒ Yes	☐ No ☐ No ☐ No
	Do participants have knowledge of the subject the researchers are trying to explore?	☒ Yes	☐ No
	Were characteristics of study participants described?	☒ Yes	☐ No
	Was a verification process used in every step of data analysis (e.g., triangulation, response validation, independent double check, member checking)? (Credibility)	☒ Yes	☐ No
	Does the researcher provide sufficient documentation of their thinking, decisions, and methods related to the study allowing the reader to follow their decision-making (e.g., how themes and categories were formulated)? (Confirmability)	☒ Yes	☐ No
	Does the researcher provide an accurate and rich description of findings by providing the information necessary to evaluate the analysis of data? (Fittingness)	☒ Yes	☐ No
	Does the researcher acknowledge and/or address their own role and potential influence during data collection?	☐ Yes	☒ No

Was sampling adequate, as evidenced by achieving data saturation?	☒ Yes	☐ No
Does the researcher provide illustrations from the data? ● If yes, do the provided illustrations support conclusions?	☐ Yes ☐ Yes	☒ No ☐ No
Is there congruency between the findings and the data?	☒ Yes	☐ No
Is there congruency between the research methodology and: ● The research question(s) ● The methods to collect data ● The interpretation of results	☒ Yes ☒ Yes ☒ Yes	☐ No ☐ No ☐ No
Are discussion and conclusions congruent with the purpose and objectives, and supported by literature?	☒ Yes	☐ No
Are conclusions drawn based on the data collected (e.g., the product of the observations or interviews)?	☒ Yes	☐ No

Section II: QuaLitative Appraisal (continued)

Quality

Circle the appropriate quality rating below:

A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; it describes the specific techniques used to enhance the quality of the inquiry.

Evidence of at least half or all the following is found in the report:

- *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated.
- *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence.
- *Verification*: The process of checking, confirming, and ensuring methodologic coherence.
- *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations.
- *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated.
- *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature.

C Low quality: Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any, of the features listed for high/good quality.

Record findings that help answer the EBP question on page **1**

Section II: QuaLitative Appraisal

B Is this a summary of multiple sources of qualitative research evidence with a comprehensive search strategy and rigorous appraisal method (Meta-synthesis)?

☐Yes ☐ This is Level III evidence
☐ No ☐Use the Nonresearch Evidence Appraisal tool (Appendix F)

Quality

After determining level of evidence, determine the quality of evidence using the considerations below:		
Were the search strategy and criteria for selecting primary studies clearly defined?	☐ Yes	☐ No
Was there a description of a systematic and thorough process for how data were analyzed?	☐ Yes	☐ No
● Were methods described for comparing findings from each study?	☐ Yes	☐ No
● Were methods described for interpreting data?	☐ Yes	☐ No
● Was sufficient data presented to support the interpretations?	☐ Yes	☐ No
Did synthesis reflect: ● New insights? ● Discovery of essential features of the phenomena? ● A fuller understanding of the phenomena?	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
Are findings clearly linked to and match the data?	☐ Yes	☐ No
Are findings connected to the purpose, data collection, and analysis?	☐ Yes	☐ No
Are discussion and conclusions connected to the purpose, objectives, and (if possible) supported by literature?	☐ Yes	☐ No
Did authors describe clearly how they arrived at the interpretation of the findings?	☐ Yes	☐ No
Circle the appropriate quality rating below:		
A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report:		

	● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any of the features listed for high/good quality**.**
	Record findings that help answer the EBP question on page **1**

Section III: Mixed Methods Appraisal

You will need to appraise both parts of the study independently before appraising the study as a whole. Evaluate the quaNtitative part of the study using Section I. Evaluate the qualitative part of the studying using Section II, then return here to complete appraisal.

Level		Level	Quality
	QuaNtitative Portion		
	QuaLitative Portion		
	The level of mixed methods evidence is based on the sequence of data collection. Quantitative data collection followed by quaLitative (explanatory design) is based on the level of the quaNtitative portion. All other designs (exploratory, convergent, or multiphasic) are Level III evidence. Explanatory sequential designs collected quantitative data first, followed by qualitative. Exploratory sequential designs collect qualitative data first, followed by quantitative. Convergent parallel designs collect quantitative and qualitative data at the same time. Multiphasic designs collect qualitative and quantitative data over more than one phase.		
Quality	After determining the level of evidence, determine the quality of evidence using the considerations below:		
	Was the mixed-methods research design relevant to address both quaNtitative and quaLitative research questions (or objectives)?	☐ Yes	☐ No
	Was the research design relevant to address the quaNtitative and the quaLitative aspects of the mixed-methods question (or objective)?	☐ Yes	☐ No

	Circle the appropriate quality rating below:
	A High quality: Contains high-quality quaNtitative and quaLitative study components; highly relevant study design; relevant integration of data or results; and careful consideration of the limitations of the chosen approach. **B Good quality:** Contains good-quality quaNtitative and quaLitative study components; relevant study design; moderately relevant integration of data or results; and some discussion of limitations of integration. **C Low quality:** Contains low quality quaNtitative and quaLitative study components; study design not relevant to research questions or objectives; poorly integrated data or results; and no consideration of limits of integration.
Record findings that help answer the EBP question on page **1**	

Johns Hopkins Evidence-Based Practice Model for Nursing and Healthcare Professionals
Research Evidence Appraisal Tool

Does this evidence answer the EBP question?
☒ Yes → Continue appraisal ☐ No → STOP, do not continue evidence appraisal

Article Summary Information

Article Title:
'Young saplings on fire' newly graduated nurses in the COVID-19pandemic: A qualitative study.

Author(s): Kovanci & Atlı Özbaş	Number: 0966-0429
Population: newly graduated nurses Size: *n* = 14 NGNs that graduated from 8 different nursing schools Setting: all nurses who had cared for covid-19 patients (done in Turkey)	Publication date: 2022

Complete after appraisal

Evidence level: Level III
Quality rating: High

Study findings that help answer the EBP question:

- describes the experiences of NGNs during the pandemic
- highlights the lack of support and guidance that NGNs needed during their transition
- Nursing managers, policy makers, and senior nurses it is their responsibility to ensure that NGNs endure condition of the pandemic so that they continue in the profession

Article Appraisal Workflow

Is this study:

☐ **QuaNtitative**(collection, analysis, and reporting of numerical data)

Numerical data (how many, how much, or how often) are used to formulate facts, uncover patterns, and generalize to a larger population; providing observed effects of a program, problem, or condition. Common methods are polls, surveys, observations, and reviews of records or documents. Data are analyzed using statistical tests.

☒ **Go to Section I for QuaNtitative leveling**

☐ **QuaLitative** (collection, analysis, and reporting of narrative data)

Rich narrative data to gain a deep understanding of phenomena, meanings, perceptions, concepts, and experiences from those experiencing it. Sample sizes are relatively small and determined by the point of redundancy when no new information is gleaned, and key themes are reiterated (data saturation). Data are analyzed using thematic analysis. Often a starting point for studies when little research exists; may use results to design empirical studies. Common methods are focus groups, individual interviews (unstructured or semi-structured), and participation/observations.

☒ **Go to Section II for QuaLitative leveling**

☐ **Mixed methods**(results reported both numerically and narratively)

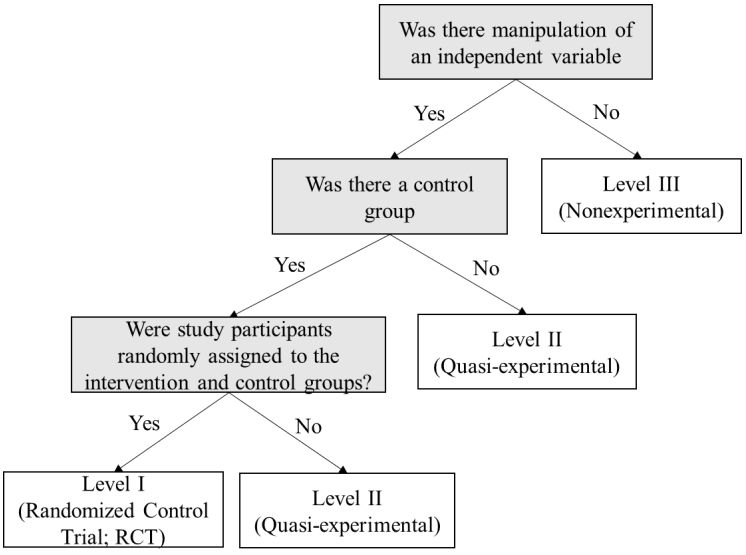
A study design (a single study or series of studies) that uses rigorous procedures in collecting and analyzing both quaNtitative and quaLitative data. *Note*: QuaNtitative survey designs with open-ended questions do not meet criteria for mixed methods research because those questions are not approached using strict quaLitative methods. Mixed methods studies provide a better understanding of research problems than using either a quaNtitative or quaLitative approach alone.

☒ **Go to Section III for Mixed Methods leveling**

Section I: QuaNtitative Appraisal

A Is this a report of a single research study?

☐ Yes →Continue to decision tree ☐ No → Go to Section I: B

Level		Level I studies include randomized control trials (RCTs) or experimental studies Level II studies have some degree of investigator control and some manipulation of an independent variable but lack random assignment to groups and may not have a control group
Qua	After determining the level of evidence, determine the quality of evidence using the considerations below:	

lit y				
	Does the researcher identify what is known and not known about the problem?	☐ Yes	☐ No	
	Does the researcher identify how the study will address any gaps in knowledge?	☐ Yes	☐ No	
	Was the purpose of the study clearly presented?	☐ Yes	☐ No	
	Was the literature review current (most sources within the past five years or a seminal study)?	☐ Yes	☐ No	
	Was sample size sufficient based on study design and rationale?	☐ Yes	☐ No	
	If there is a control group: ● Were the characteristics and/or demographics similar in both the control and intervention groups? ● If multiple settings were used, were the settings similar? ● Were all groups equally treated except for the intervention group(s)?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No	☐ N/A ☐ N/A ☐N/A
	Are data collection methods described clearly?	☐ Yes	☐ No	
	Were the instruments reliable (Cronbach's α [alpha] ≥ 0.70)?	☐ Yes	☐ No	☐ N/A
	Was instrument validity discussed?	☐ Yes	☐ No	☐ N/A
	If surveys or questionnaires were used, was the response rate ≥ 25%?	☐ Yes	☐ No	☐ N/A
	Were the results presented clearly?	☐ Yes	☐ No	
	If tables were presented, was the narrative consistent with the table content?	☐ Yes	☐ No	☐ N/A
	Were study limitations identified and addressed?	☐ Yes	☐ No	
	Were conclusions based on results?	☐ Yes	☐ No	

Section I: QuaNtitative Appraisal (continued)

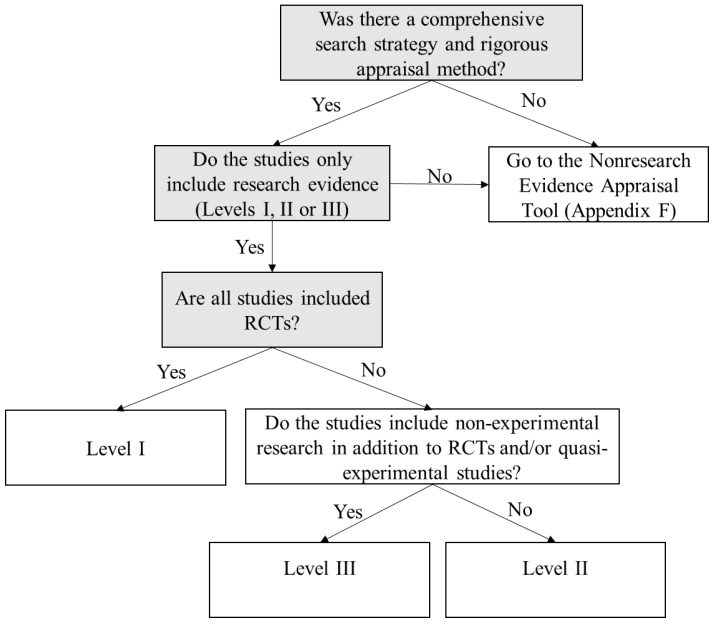
Quality	Circle the appropriate quality rating below:
	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence. **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence. **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.

Record findings that help answer the EBP question on page **1**

Section I: QuaNtitative Appraisal (continued)

B Is this a summary of multiple sources of research evidence?
☐ Yes → Continue to decision tree
☐ No → Use the Nonresearch Evidence Appraisal tool (Appendix F)

Level



Quality

After determining level of evidence, determine the quality of evidence using the considerations below:		
Were the variables of interest clearly identified?	☐ Yes	☐ No
Was the search comprehensive and reproducible? ● Key terms stated ● Multiple databases searched and identified ● Inclusion and exclusion criteria stated	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
Was there a flow diagram that included the number of studies eliminated at each level of review?	☐ Yes	☐ No
Were details of included studies presented (design, sample, methods, results, outcomes, strengths, and limitations)?	☐ Yes	☐ No
Were methods for appraising the strength of evidence (level and quality) described?	☐ Yes	☐ No
Were conclusions based on results? ●Results were interpreted ●Conclusions flowed logically from the research question, results, and interpretation	 ☐ Yes ☐ Yes	 ☐ No ☐ No
Did the systematic review include a section addressing limitations and how they were addressed?	☐ Yes	☐ No

Section I: QuaNtitative Appraisal (continued)

	Circle the appropriate quality rating below:
Quality	**A High quality:** Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; recommendations consistent with the study's findings and include thorough reference to scientific evidence **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
	Record findings that help answer the EBP question on page **1**

Section II: QuaLitative Appraisal

A Is this a report of a single research study?

■ Yes → This is Level III evidence

☐ No → Go to Section II: B

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Was there a clearly identifiable and articulated: ● Purpose? ● Research question? ● Justification for design and/or theoretical framework used?	■ Yes ■ Yes ■ Yes	☐ No ☐ No ☐ No
	Do participants have knowledge of the subject the researchers are trying to explore?	■ Yes	☐ No
	Were characteristics of study participants described?	■ Yes	☐ No
	Was a verification process used in every step of data analysis (e.g., triangulation, response validation, independent double check, member checking)? (Credibility)	■ Yes	☐ No
	Does the researcher provide sufficient documentation of their thinking, decisions, and methods related to the study allowing the reader to follow their decision-making (e.g., how themes and categories were formulated)? (Confirmability)	■ Yes	☐ No
	Does the researcher provide an accurate and rich description of findings by providing the information necessary to evaluate the analysis of data? (Fittingness)	■ Yes	☐ No
	Does the researcher acknowledge and/or address their own role and potential influence during data collection?	☐ Yes	■ No
	Was sampling adequate, as evidenced by achieving data saturation?	■ Yes	☐ No
	Does the researcher provide illustrations from the data? ● If yes, do the provided illustrations support conclusions?	■ Yes ■ Yes	☐ No ☐ No
	Is there congruency between the findings and the data?	■ Yes	☐ No
	Is there congruency between the research methodology and: ● The research question(s) ● The methods to collect data ● The interpretation of results	■ Yes ■ Yes ■ Yes	☐ No ☐ No ☐ No
	Are discussion and conclusions congruent with the purpose and objectives, and supported by literature?	■ Yes	☐ No
	Are conclusions drawn based on the data collected (e.g., the product of the observations or interviews)?	■ Yes	☐ No

Section II: QuaLitative Appraisal (continued)

Qu	Circle the appropriate quality rating below:

a l i t y	**A/B High/Good Quality:** The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; it describes the specific techniques used to enhance the quality of the inquiry. Evidence of at least half or all the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any, of the features listed for high/good quality.
Record findings that help answer the EBP question on page **1**	

Section II: QuaLitative Appraisal

B	Is this a summary of multiple sources of qualitative research evidence with a comprehensive search strategy and rigorous appraisal method (Meta-synthesis)?	☐Yes ☐ This is Level III evidence ☐ No ☐Use the Nonresearch Evidence Appraisal tool (Appendix F)

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the search strategy and criteria for selecting primary studies clearly defined?	☐ Yes	☐ No
	Was there a description of a systematic and thorough process for how data were analyzed?	☐ Yes	☐ No
	● Were methods described for comparing findings from each study?	☐ Yes	☐ No
	● Were methods described for interpreting data?	☐ Yes	☐ No
	● Was sufficient data presented to support the interpretations?	☐ Yes	☐ No
	Did synthesis reflect: ● New insights? ● Discovery of essential features of the phenomena? ● A fuller understanding of the phenomena?	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Are findings clearly linked to and match the data?	☐ Yes	☐ No
	Are findings connected to the purpose, data collection, and analysis?	☐ Yes	☐ No
	Are discussion and conclusions connected to the purpose, objectives, and (if possible) supported by literature?	☐ Yes	☐ No
	Did authors describe clearly how they arrived at the interpretation of the findings?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		
	A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any of the features listed for high/good quality**.**		
	Record findings that help answer the EBP question on page **1**		

Section III: Mixed Methods Appraisal

You will need to appraise both parts of the study independently before appraising the study as a whole. Evaluate the quaNtitative part of the study using Section I. Evaluate the qualitative part of the studying using Section II, then return here to complete appraisal.

Level		Level	Quality
	QuaNtitative Portion		
	QuaLitative Portion		
	The level of mixed methods evidence is based on the sequence of data collection. Quantitative data collection followed by quaLitative (explanatory design) is based on the level of the quaNtitative portion. All other designs (exploratory, convergent, or multiphasic) are Level III evidence. Explanatory sequential designs collected quantitative data first, followed by qualitative. Exploratory sequential designs collect qualitative data first, followed by quantitative. Convergent parallel designs collect quantitative and qualitative data at the same time. Multiphasic designs collect qualitative and quantitative data over more than one phase.		
Quality	After determining the level of evidence, determine the quality of evidence using the considerations below:		
	Was the mixed-methods research design relevant to address both quaNtitative and quaLitative research questions (or objectives)?	☐ Yes	☐ No
	Was the research design relevant to address the quaNtitative and the quaLitative aspects of the mixed-methods question (or objective)?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		
	A High quality: Contains high-quality quaNtitative and quaLitative study components; highly relevant study design; relevant integration of data or results; and careful consideration of the limitations of the chosen approach. **B Good quality:** Contains good-quality quaNtitative and quaLitative study components; relevant study design; moderately relevant integration of data or results; and some discussion of limitations of integration. **C Low quality:** Contains low quality quaNtitative and quaLitative study components; study design not relevant to research questions or objectives; poorly integrated data or results; and no consideration of limits of integration.		

Record findings that help answer the EBP question on page **1**

Johns Hopkins Evidence-Based Practice Model for Nursing and Healthcare Professionals
Research Evidence Appraisal Tool

Does this evidence answer the EBP question?
☒ Yes → Continue appraisal ☐ No → STOP, do not continue evidence appraisal

Article Summary Information

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

Author(s): Grubaugh, Africa, & Mallory	Number: 1541-4612 (Print) 15414612 (Linking)
Population: NGNs that participated in the Versant TTP program between 2018 and 2021 Size: *n* = > 4100 participants from 13 states across the US Setting: data used from a literature review	Publication date: April 2022

Complete after appraisal

Evidence level: III
Quality rating: Good Quality

Study findings that help answer the EBP question:

- Covid-19 increased staffing demands for nursing
- staffing demands comes to highlight the need for developing practice-ready nurses
- widening academic practice gap causes requires partnerships to active prepared nurses →which leads to the need of nursing leaders to develop new strategies to ensure practice ready workforce

Article Appraisal Workflow

Is this study:

☒ **QuaNtitative** (collection, analysis, and reporting of numerical data)

Numerical data (how many, how much, or how often) are used to formulate facts, uncover patterns, and generalize to a larger population; provides observed effects of a program, problem, or condition. Common methods are polls, surveys, observations, and reviews of records or documents. Data are analyzed using statistical tests.

☒ **Go to Section I for QuaNtitative leveling**

☐ **QuaLitative** (collection, analysis, and reporting of narrative data)

Rich narrative data to gain a deep understanding of phenomena, meanings, perceptions, concepts, and experiences from those experiencing it. Sample sizes are relatively small and determined by the point of redundancy when no new information is gleaned, and key themes are reiterated (data saturation). Data are analyzed using thematic analysis. Often a starting point for studies when little research exists; may use results to design empirical studies. Common methods are focus groups, individual interviews (unstructured or semi-structured), and participation/observations.

☒ **Go to Section II for QuaLitative leveling**

☐ **Mixed methods** (results reported both numerically and narratively)

A study design (a single study or series of studies) that uses rigorous procedures in collecting and analyzing both quaNtitative and quaLitative data. *Note*: QuaNtitative survey designs with open-ended questions do not meet criteria for mixed methods research because those questions are not approached using strict quaLitative methods. Mixed methods studies provide a better understanding of research problems than using either a quaNtitative or quaLitative approach alone.

☒ **Go to Section III for Mixed Methods leveling**

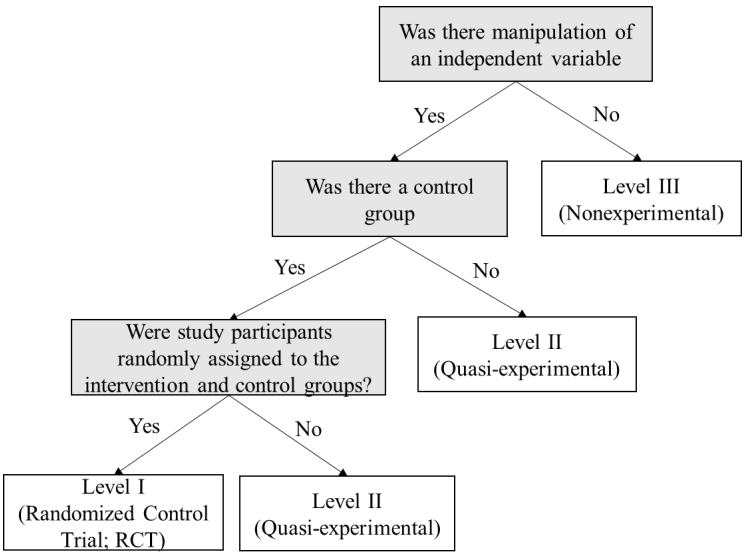
Section I: QuaNtitative Appraisal

A Is this a report of a single research study?

☐ Yes → Continue to decision tree

☒ No → Go to Section I: B

Level



Level I studies include randomized control trials (RCTs) or experimental studies

Level II studies have some degree of investigator control and some manipulation of an independent variable but lack random assignment to groups and may not have a control group

Quality

After determining the level of evidence, determine the quality of evidence using the considerations below:

Does the researcher identify what is known and not known about the problem?	☐ Yes	☐ No	
Does the researcher identify how the study will address any gaps in knowledge?	☐ Yes	☐ No	
Was the purpose of the study clearly presented?	☐ Yes	☐ No	
Was the literature review current (most sources within the past five years or a seminal study)?	☐ Yes	☐ No	
Was sample size sufficient based on study design and rationale?	☐ Yes	☐ No	
If there is a control group: ● Were the characteristics and/or demographics similar in both the control and intervention groups? ● If multiple settings were used, were the settings similar? ● Were all groups equally treated except for the intervention group(s)?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No	☐ N/A ☐ N/A ☐ N/A
Are data collection methods described clearly?	☐ Yes	☐ No	
Were the instruments reliable (Cronbach's α [alpha] ≥ 0.70)?	☐ Yes	☐ No	☐ N/A
Was instrument validity discussed?	☐ Yes	☐ No	☐ N/A
If surveys or questionnaires were used, was the response rate ≥ 25%?	☐ Yes	☐ No	☐ N/A
Were the results presented clearly?	☐ Yes	☐ No	
If tables were presented, was the narrative consistent with the table content?	☐ Yes	☐ No	☐ N/A
Were study limitations identified and addressed?	☐ Yes	☐ No	
Were conclusions based on results?	☐ Yes	☐ No	

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:

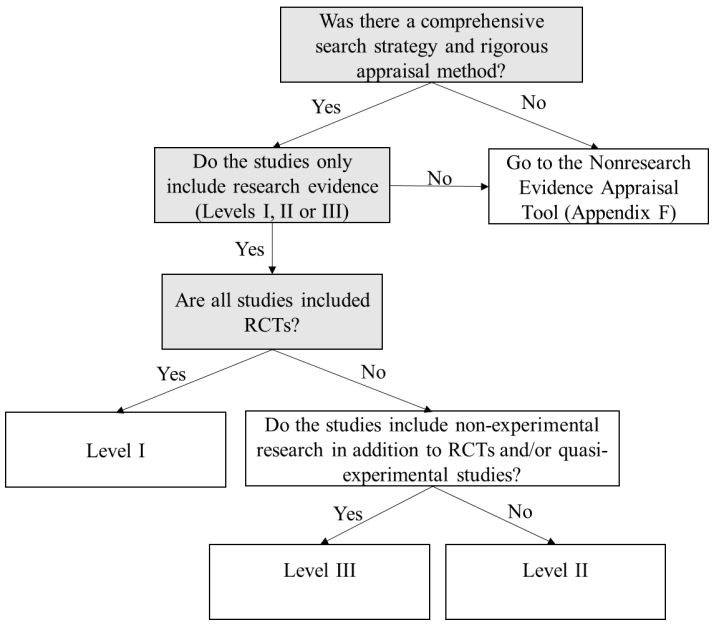
	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence. **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence. **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section I: QuaNtitative Appraisal (continued)

B Is this a summary of multiple sources of research evidence?

☒Yes →Continue to decision tree
☐No →Use the Nonresearch Evidence Appraisal tool (Appendix F)

Level



Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the variables of interest clearly identified?	■ Yes	☐ No
	Was the search comprehensive and reproducible? ● Key terms stated ● Multiple databases searched and identified ● Inclusion and exclusion criteria stated	 ■ Yes ■ Yes ■ Yes	 ☐ No ☐ No ☐ No
	Was there a flow diagram that included the number of studies eliminated at each level of review?	☐ Yes	■ No
	Were details of included studies presented (design, sample, methods, results, outcomes, strengths, and limitations)?	■ Yes	☐ No
	Were methods for appraising the strength of evidence (level and quality) described?	☐ Yes	■ No
	Were conclusions based on results? ●Results were interpreted ●Conclusions flowed logically from the research question, results, and interpretation	 ■ Yes ■ Yes	 ☐ No ☐ No
	Did the systematic review include a section addressing limitations and how they were addressed?	■ Yes	☐ No

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; recommendations consistent with the study's findings and include thorough reference to scientific evidence **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
	Record findings that help answer the EBP question on page **1**

Section II: QuaLitative Appraisal

A Is this a report of a single research study? ☐Yes ☐ This is Level III evidence ☐No ☐ Go to Section II: B

	After determining level of evidence, determine the quality of evidence using the considerations below:		
Quality	Was there a clearly identifiable and articulated: ● Purpose? ● Research question? ● Justification for design and/or theoretical framework used?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No
	Do participants have knowledge of the subject the researchers are trying to explore?	☐ Yes	☐ No
	Were characteristics of study participants described?	☐ Yes	☐ No
	Was a verification process used in every step of data analysis (e.g., triangulation, response validation, independent double check, member checking)? (Credibility)	☐ Yes	☐ No
	Does the researcher provide sufficient documentation of their thinking, decisions, and methods related to the study allowing the reader to follow their decision-making (e.g., how themes and categories were formulated)? (Confirmability)	☐ Yes	☐ No
	Does the researcher provide an accurate and rich description of findings by providing the information necessary to evaluate the analysis of data? (Fittingness)	☐ Yes	☐ No
	Does the researcher acknowledge and/or address their own role and potential influence during data collection?	☐ Yes	☐ No
	Was sampling adequate, as evidenced by achieving data saturation?	☐ Yes	☐ No
	Does the researcher provide illustrations from the data? ● If yes, do the provided illustrations support conclusions?	☐ Yes ☐ Yes	☐ No ☐ No
	Is there congruency between the findings and the data?	☐ Yes	☐ No
	Is there congruency between the research methodology and: ● The research question(s) ● The methods to collect data ● The interpretation of results	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No
	Are discussion and conclusions congruent with the purpose and objectives, and supported by literature?	☐ Yes	☐ No
	Are conclusions drawn based on the data collected (e.g., the product of the observations or interviews)?	☐ Yes	☐ No

Section II: QuaLitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; it describes the specific techniques used to enhance the quality of the inquiry. Evidence of at least half or all the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any, of the features listed for high/good quality.
	Record findings that help answer the EBP question on page **1**

B	Is this a summary of multiple sources of qualitative research evidence with a comprehensive search strategy and rigorous appraisal method (Meta-synthesis)?	☐Yes ☐ This is Level III evidence ☐No ☐Use the Nonresearch Evidence Appraisal tool (Appendix F)

Quality			
	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the search strategy and criteria for selecting primary studies clearly defined?	☐ Yes	☐ No
	Was there a description of a systematic and thorough process for how data were analyzed?	☐ Yes	☐ No
	● Were methods described for comparing findings from each study?	☐ Yes	☐ No
	● Were methods described for interpreting data?	☐ Yes	☐ No
	● Was sufficient data presented to support the interpretations?	☐ Yes	☐ No
	Did synthesis reflect: ● New insights? ● Discovery of essential features of the phenomena? ● A fuller understanding of the phenomena?	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Are findings clearly linked to and match the data?	☐ Yes	☐ No
	Are findings connected to the purpose, data collection, and analysis?	☐ Yes	☐ No
	Are discussion and conclusions connected to the purpose, objectives, and (if possible) supported by literature?	☐ Yes	☐ No
	Did authors describe clearly how they arrived at the interpretation of the findings?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		

A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report:

- *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated.
- *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence.
- *Verification*: The process of checking, confirming, and ensuring methodologic coherence.
- *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations.
- *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated.
- *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature.

C Low quality: Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any of the features listed for high/good quality**.**

Record findings that help answer the EBP question on page **1**

Section III: Mixed Methods Appraisal

You will need to appraise both parts of the study independently before appraising the study as a whole. Evaluate the quaNtitative part of the study using Section I. Evaluate the qualitative part of the studying using Section II, then return here to complete appraisal.

Level

	Level	Quality
QuaNtitative Portion		
QuaLitative Portion		

The level of mixed methods evidence is based on the sequence of data collection. Quantitative data collection followed by quaLitative (explanatory design) is based on the level of the quaNtitative portion. All other designs (exploratory, convergent, or multiphasic) are Level III evidence.

Explanatory sequential designs collected quantitative data first, followed by qualitative.
Exploratory sequential designs collect qualitative data first, followed by quantitative.
Convergent parallel designs collect quantitative and qualitative data at the same time.
Multiphasic designs collect qualitative and quantitative data over more than one phase.

Quality

After determining the level of evidence, determine the quality of evidence using the considerations below:

Was the mixed-methods research design relevant to address both quaNtitative and quaLitative research questions (or objectives)?	☐ Yes	☐ No
Was the research design relevant to address the quaNtitative and the quaLitative aspects of the mixed-methods question (or objective)?	☐ Yes	☐ No

Circle the appropriate quality rating below:

A High quality: Contains high-quality quaNtitative and quaLitative study components; highly relevant study design; relevant integration of data or results; and careful consideration of the limitations of the chosen approach.

B Good quality: Contains good-quality quaNtitative and quaLitative study components; relevant study design; moderately relevant integration of data or results; and some discussion of limitations of integration.

C Low quality: Contains low quality quaNtitative and quaLitative study components; study design not relevant to research questions or objectives; poorly integrated data or results; and no consideration of limits of integration.

Record findings that help answer the EBP question on page **1**

Johns Hopkins Evidence-Based Practice Model for Nursing and Healthcare Professionals
Research Evidence Appraisal Tool

Does this evidence answer the EBP question?

☒ Yes →Continue appraisal ☐ No →STOP, do not continue evidence appraisal

Article Summary Information

Article Title: Nurse faculty perceptions of readiness for practice among new nurses graduating during the pandemic.

Author(s): Powers, Montegrico, Pate, & Pagel	Number: 1532-8481 (Electronic) 87557223 (Linking)
Population: Nurse faculty Size: *n* = 116 Setting: North Carolina	Publication date: September 24, 2021 (online publication date)

Complete after appraisal

Evidence level: III
Quality rating: High quality

Study findings that help answer the EBP question:

- shift to remote nursing education during the covid-19 pandemic
- provides guidance to transition-to-practice programs
- describes the perceptions of nurse faculty on the readiness to practice among students graduating pre-pandemic in comparison to those that graduated during the pandemic

Article Appraisal Workflow

Is this study:

☒ **QuaNtitative** (collection, analysis, and reporting of numerical data)

Numerical data (how many, how much, or how often) are used to formulate facts, uncover patterns, and generalize to a larger population; provides observed effects of a program, problem, or condition. Common methods are polls, surveys, observations, and reviews of records or documents. Data are analyzed using statistical tests.

☒ **Go to Section I for QuaNtitative leveling**

☐ **QuaLitative** (collection, analysis, and reporting of narrative data)

Rich narrative data to gain a deep understanding of phenomena, meanings, perceptions, concepts, and experiences from those experiencing it. Sample sizes are relatively small and determined by the point of redundancy when no new information is gleaned, and key themes are reiterated (data saturation). Data are analyzed using thematic analysis. Often a starting point for studies when little research exists; may use results to design empirical studies. Common methods are focus groups, individual interviews (unstructured or semi-structured), and participation/observations.

☒ **Go to Section II for QuaLitative leveling**

☐ **Mixed methods** (results reported both numerically and narratively)

A study design (a single study or series of studies) that uses rigorous procedures in collecting and analyzing both quaNtitative and quaLitative data. *Note*: QuaNtitative survey designs with open-ended questions do not meet criteria for mixed methods research because those questions are not approached using strict quaLitative methods. Mixed methods studies provide a better understanding of research problems than using either a quaNtitative or quaLitative approach alone.

☒ **Go to Section III for Mixed Methods leveling**

Section I: QuaNtitative Appraisal

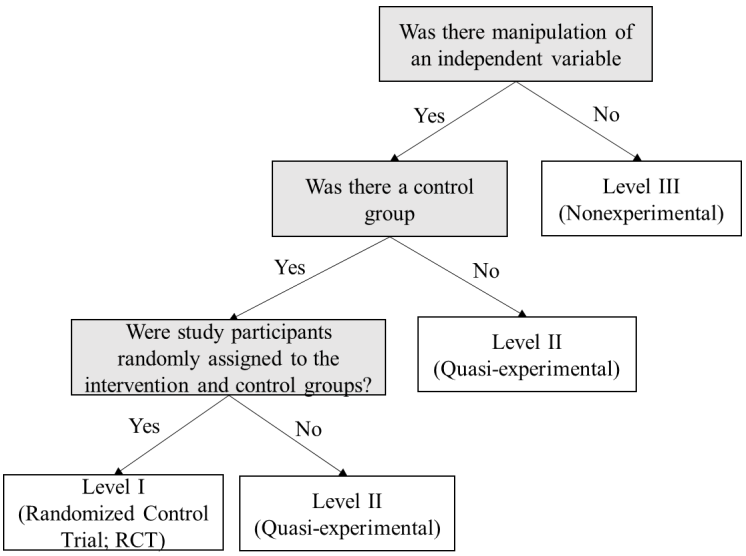
A

Is this a report of a single research study?

☒ Yes → Continue to decision tree

☐ No → Go to Section I: B

Level



Level I studies include randomized control trials (RCTs) or experimental studies

Level II studies have some degree of investigator control and some manipulation of an independent variable but lack random assignment to groups and may not have a control group

Quality	After determining the level of evidence, determine the quality of evidence using the considerations below:			
	Does the researcher identify what is known and not known about the problem?	☒ Yes	☐ No	
	Does the researcher identify how the study will address any gaps in knowledge?	☒ Yes	☐ No	
	Was the purpose of the study clearly presented?	☒ Yes	☐ No	
	Was the literature review current (most sources within the past five years or a seminal study)?	☒ Yes	☐ No	
	Was sample size sufficient based on study design and rationale?	☒ Yes	☐ No	
	If there is a control group: ● Were the characteristics and/or demographics similar in both the control and intervention groups? ● If multiple settings were used, were the settings similar? ● Were all groups equally treated except for the intervention group(s)?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No	☒ N/A ☒ N/A ☒ N/A
	Are data collection methods described clearly?	☒ Yes	☐ No	
	Were the instruments reliable (Cronbach's α [alpha] ≥ 0.70)?	☒ Yes	☐ No	☐ N/A
	Was instrument validity discussed?	☒ Yes	☐ No	☐ N/A
	If surveys or questionnaires were used, was the response rate ≥ 25%?	☐ Yes	☐ No	☒ N/A
	Were the results presented clearly?	☒ Yes	☐ No	
	If tables were presented, was the narrative consistent with the table content?	☒ Yes	☐ No	☐ N/A
	Were study limitations identified and addressed?	☒ Yes	☐ No	
	Were conclusions based on results?	☒ Yes	☐ No	

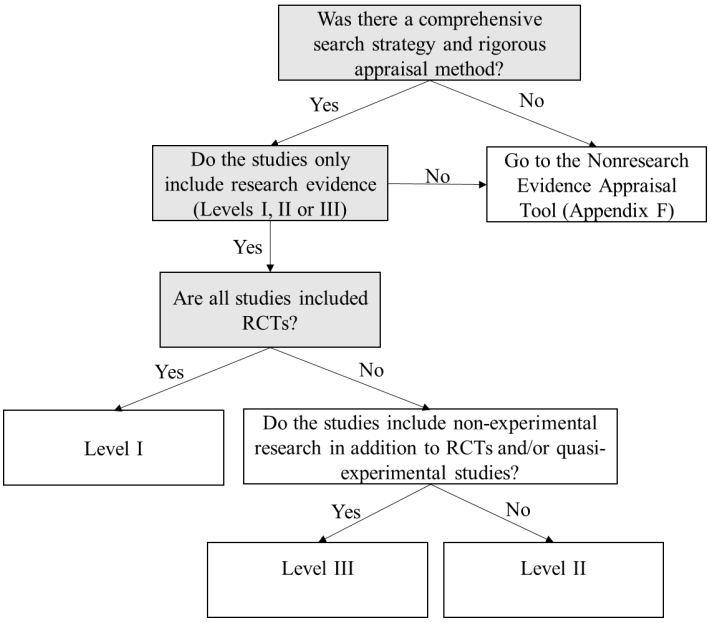
Section I: QuaNtitative Appraisal (continued)

	Circle the appropriate quality rating below:
Quality	**A High quality:** Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence. **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence. **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.

Record findings that help answer the EBP question on page **1**

Section I: QuaNtitative Appraisal (continued)

B	Is this a summary of multiple sources of research evidence?	☐ Yes ☐ Continue to decision tree ☐ No ☐ Us

			e the Nonresearch Evidence Appraisal tool (Appendix F)
Level			
Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the variables of interest clearly identified?	☐ Yes	☐ No
	Was the search comprehensive and reproducible? ● Key terms stated ● Multiple databases searched and identified ● Inclusion and exclusion criteria stated	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No

	Was there a flow diagram that included the number of studies eliminated at each level of review?	☐ Yes	☐ No
	Were details of included studies presented (design, sample, methods, results, outcomes, strengths, and limitations)?	☐ Yes	☐ No
	Were methods for appraising the strength of evidence (level and quality) described?	☐ Yes	☐ No
	Were conclusions based on results? ●Results were interpreted ●Conclusions flowed logically from the research question, results, and interpretation	 ☐ Yes ☐ Yes	 ☐ No ☐ No
	Did the systematic review include a section addressing limitations and how they were addressed?	☐ Yes	☐ No

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; recommendations consistent with the study's findings and include thorough reference to scientific evidence **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section II: QuaLitative Appraisal

A Is this a report of a single research study? ☐Yes ☐ This is Level III evidence ☐No ☐ Go to Section II: B

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Was there a clearly identifiable and articulated: ● Purpose? ● Research question? ● Justification for design and/or theoretical framework used?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No
	Do participants have knowledge of the subject the researchers are trying to explore?	☐ Yes	☐ No
	Were characteristics of study participants described?	☐ Yes	☐ No
	Was a verification process used in every step of data analysis (e.g., triangulation, response validation, independent double check, member checking)? (Credibility)	☐ Yes	☐ No
	Does the researcher provide sufficient documentation of their thinking, decisions, and methods related to the study allowing the reader to follow their decision-making (e.g., how themes and categories were formulated)? (Confirmability)	☐ Yes	☐ No
	Does the researcher provide an accurate and rich description of findings by providing the information necessary to evaluate the analysis of data? (Fittingness)	☐ Yes	☐ No
	Does the researcher acknowledge and/or address their own role and potential influence during data collection?	☐ Yes	☐ No
	Was sampling adequate, as evidenced by achieving data saturation?	☐ Yes	☐ No
	Does the researcher provide illustrations from the data? ● If yes, do the provided illustrations support conclusions?	☐ Yes ☐ Yes	☐ No ☐ No
	Is there congruency between the findings and the data?	☐ Yes	☐ No
	Is there congruency between the research methodology and: ● The research question(s) ● The methods to collect data ● The interpretation of results	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No
	Are discussion and conclusions congruent with the purpose and objectives, and supported by literature?	☐ Yes	☐ No
	Are conclusions drawn based on the data collected (e.g., the product of the observations or interviews)?	☐ Yes	☐ No

Section II: QuaLitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; it describes the specific techniques used to enhance the quality of the inquiry. Evidence of at least half or all the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any, of the features listed for high/good quality.
	Record findings that help answer the EBP question on page **1**

B	Is this a summary of multiple sources of qualitative research evidence with a comprehensive search strategy and rigorous appraisal method (Meta-synthesis)?	☐Yes ☐ This is Level III evidence ☐ No ☐Use the Nonresearch Evidence Appraisal tool (Appendix F)	
Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the search strategy and criteria for selecting primary studies clearly defined?	☐ Yes	☐ No
	Was there a description of a systematic and thorough process for how data were analyzed?	☐ Yes	☐ No
	● Were methods described for comparing findings from each study?	☐ Yes	☐ No
	● Were methods described for interpreting data?	☐ Yes	☐ No
	● Was sufficient data presented to support the interpretations?	☐ Yes	☐ No
	Did synthesis reflect: ● New insights? ● Discovery of essential features of the phenomena? ● A fuller understanding of the phenomena?	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Are findings clearly linked to and match the data?	☐ Yes	☐ No
	Are findings connected to the purpose, data collection, and analysis?	☐ Yes	☐ No
	Are discussion and conclusions connected to the purpose, objectives, and (if possible) supported by literature?	☐ Yes	☐ No
	Did authors describe clearly how they arrived at the interpretation of the findings?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		

A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report:

- *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated.
- *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence.
- *Verification*: The process of checking, confirming, and ensuring methodologic coherence.
- *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations.
- *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated.
- *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature.

C Low quality: Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any of the features listed for high/good quality**.**

Record findings that help answer the EBP question on page **1**

Section III: Mixed Methods Appraisal

You will need to appraise both parts of the study independently before appraising the study as a whole. Evaluate the quaNtitative part of the study using Section I. Evaluate the qualitative part of the studying using Section II, then return here to complete appraisal.

Level

	Level	Quality
QuaNtitative Portion		
QuaLitative Portion		

The level of mixed methods evidence is based on the sequence of data collection. Quantitative data collection followed by quaLitative (explanatory design) is based on the level of the quaNtitative portion. All other designs (exploratory, convergent, or multiphasic) are Level III evidence.

Explanatory sequential designs collected quantitative data first, followed by qualitative.
Exploratory sequential designs collect qualitative data first, followed by quantitative.
Convergent parallel designs collect quantitative and qualitative data at the same time.
Multiphasic designs collect qualitative and quantitative data over more than one phase.

Quality

After determining the level of evidence, determine the quality of evidence using the considerations below:

Was the mixed-methods research design relevant to address both quaNtitative and quaLitative research questions (or objectives)?	☐ Yes	☐ No
Was the research design relevant to address the quaNtitative and the quaLitative aspects of the mixed-methods question (or objective)?	☐ Yes	☐ No

Circle the appropriate quality rating below:

A High quality: Contains high-quality quaNtitative and quaLitative study components; highly relevant study design; relevant integration of data or results; and careful consideration of the limitations of the chosen approach.

B Good quality: Contains good-quality quaNtitative and quaLitative study components; relevant study design; moderately relevant integration of data or results; and some discussion of limitations of integration.

C Low quality: Contains low quality quaNtitative and quaLitative study components; study design not relevant to research questions or objectives; poorly integrated data or results; and no consideration of limits of integration.

Record findings that help answer the EBP question on page **1**

Johns Hopkins Evidence-Based Practice Model for Nursing and Healthcare Professionals
Research Evidence Appraisal Tool

Does this evidence answer the EBP question?
■ Yes → Continue appraisal ☐ No →STOP, do not continue evidence appraisal

Article Summary Information

Article Title: Envisioning Nursing Education for a Post-COVID-19 World: Qualitative Findings From the Frontline.

Author(s): Badowski et al.	Number: 1938-2421 (Electronic) 01484834 (linking)
Population: nurses throughout the US (37 white, 20, Black, 20 Latinx, 14 Asian, 7 multiracial, 2 Native American) Size: *n* = 100 Setting: throughout the United States	Publication date: December 2021

Complete after appraisal

Evidence level: III
Quality rating: High

Study findings that help answer the EBP question:

- How Covid-19 changed nursing education
- recommendations from frontline nurses to help improve education during this time and after
- Four themes identified: teamwork and communication, flexibility and critical thinking, leadership and using your voice, and advocacy and policy
    - shift nursing education to focus on these key themes can help to better prepare the NGNs to be adaptable in the practice setting
    - this will overall improve nursing care and outcomes

Article Appraisal Workflow

Is this study:

☐ **QuaNtitative** (collection, analysis, and reporting of numerical data)

Numerical data (how many, how much, or how often) are used to formulate facts, uncover patterns, and generalize to a larger population; provides observed effects of a program, problem, or condition. Common methods are polls, surveys, observations, and reviews of records or documents. Data are analyzed using statistical tests.

☒ **Go to Section I for QuaNtitative leveling**

☐ **QuaLitative** (collection, analysis, and reporting of narrative data)

Rich narrative data to gain a deep understanding of phenomena, meanings, perceptions, concepts, and experiences from those experiencing it. Sample sizes are relatively small and determined by the point of redundancy when no new information is gleaned, and key themes are reiterated (data saturation). Data are analyzed using thematic analysis. Often a starting point for studies when little research exists; may use results to design empirical studies. Common methods are focus groups, individual interviews (unstructured or semi-structured), and participation/observations.

☒ **Go to Section II for QuaLitative leveling**

☐ **Mixed methods** (results reported both numerically and narratively)

A study design (a single study or series of studies) that uses rigorous procedures in collecting and analyzing both quaNtitative and quaLitative data. *Note*: QuaNtitative survey designs with open-ended questions do not meet criteria for mixed methods research because those questions are not approached using strict quaLitative methods. Mixed methods studies provide a better understanding of research problems than using either a quaNtitative or quaLitative approach alone.

☒ **Go to Section III for Mixed Methods leveling**

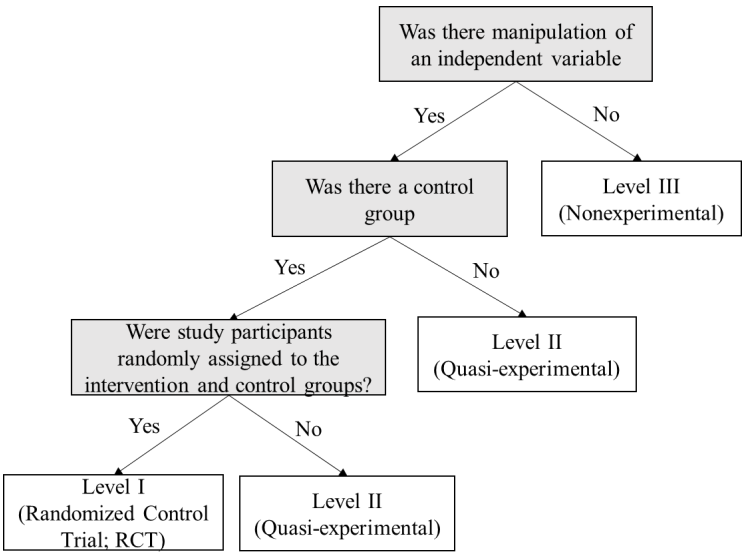
Section I: QuaNtitative Appraisal

A Is this a report of a single research study?

☐ Yes ☐ Continue to decision tree

☐ No ☐ Go to Section I: B

Level



Level I studies include randomized control trials (RCTs) or experimental studies

Level II studies have some degree of investigator control and some manipulation of an independent variable but lack random assignment to groups and may not have a control group

Quality

After determining the level of evidence, determine the quality of evidence using the considerations below:

Does the researcher identify what is known and not known about the problem?	☐ Yes	☐ No	
Does the researcher identify how the study will address any gaps in knowledge?	☐ Yes	☐ No	
Was the purpose of the study clearly presented?	☐ Yes	☐ No	
Was the literature review current (most sources within the past five years or a seminal study)?	☐ Yes	☐ No	
Was sample size sufficient based on study design and rationale?	☐ Yes	☐ No	
If there is a control group: ● Were the characteristics and/or demographics similar in both the control and intervention groups? ● If multiple settings were used, were the settings similar? ● Were all groups equally treated except for the intervention group(s)?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No	☐ N/A ☐ N/A ☐N/A
Are data collection methods described clearly?	☐ Yes	☐ No	
Were the instruments reliable (Cronbach's α [alpha] ≥ 0.70)?	☐ Yes	☐ No	☐ N/A
Was instrument validity discussed?	☐ Yes	☐ No	☐ N/A
If surveys or questionnaires were used, was the response rate ≥ 25%?	☐ Yes	☐ No	☐ N/A
Were the results presented clearly?	☐ Yes	☐ No	
If tables were presented, was the narrative consistent with the table content?	☐ Yes	☐ No	☐ N/A
Were study limitations identified and addressed?	☐ Yes	☐ No	
Were conclusions based on results?	☐ Yes	☐ No	

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:

	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence. **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence. **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

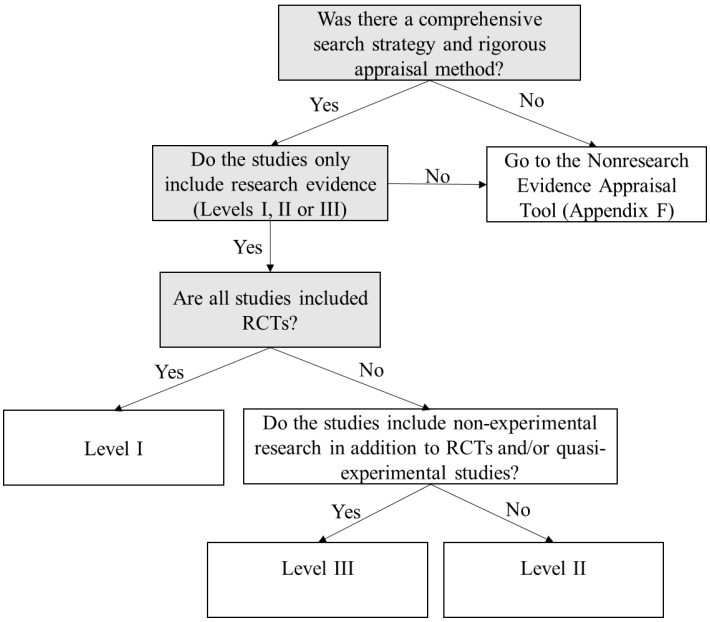
Section I: QuaNtitative Appraisal (continued)

B Is this a summary of multiple sources of research evidence?

☐ Yes ☐ Continue to decision tree

☐ No ☐ Use the Nonresearch Evidence Appraisal tool (Appendix F)

Level



Quality

After determining level of evidence, determine the quality of evidence using the considerations below:

Were the variables of interest clearly identified?	☐ Yes	☐ No
Was the search comprehensive and reproducible? ● Key terms stated ● Multiple databases searched and identified ● Inclusion and exclusion criteria stated	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No
Was there a flow diagram that included the number of studies eliminated at each level of review?	☐ Yes	☐ No
Were details of included studies presented (design, sample, methods, results, outcomes, strengths, and limitations)?	☐ Yes	☐ No
Were methods for appraising the strength of evidence (level and quality) described?	☐ Yes	☐ No
Were conclusions based on results? ● Results were interpreted ● Conclusions flowed logically from the research question, results, and interpretation	☐ Yes ☐ Yes	☐ No ☐ No
Did the systematic review include a section addressing limitations and how they were addressed?	☐ Yes	☐ No

Section I: QuaNtitative Appraisal (continued)

Qua

Circle the appropriate quality rating below:

l i t y	**A High quality:** Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; recommendations consistent with the study's findings and include thorough reference to scientific evidence **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section II: QuaLitative Appraisal

A Is this a report of a single research study? ☐ Yes ☐ This is Level III evidence
☐ No ☐ Go to Section II: B

Q u a l i t y	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Was there a clearly identifiable and articulated: • Purpose? • Research question? • Justification for design and/or theoretical framework used?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No
	Do participants have knowledge of the subject the researchers are trying to explore?	☐ Yes	☐ No
	Were characteristics of study participants described?	☐ Yes	☐ No
	Was a verification process used in every step of data analysis (e.g., triangulation, response validation, independent double check, member checking)? (Credibility)	☐ Yes	☐ No
	Does the researcher provide sufficient documentation of their thinking, decisions, and methods related to the study allowing the reader to follow their decision-making (e.g., how themes and categories were formulated)? (Confirmability)	☐ Yes	☐ No
	Does the researcher provide an accurate and rich description of findings by providing the information necessary to evaluate the analysis of data? (Fittingness)	☐ Yes	☐ No

	Does the researcher acknowledge and/or address their own role and potential influence during data collection?	■ Yes	☐ No
	Was sampling adequate, as evidenced by achieving data saturation?	■ Yes	☐ No
	Does the researcher provide illustrations from the data? ● If yes, do the provided illustrations support conclusions?	■ Yes ■ Yes	☐ No ☐ No
	Is there congruency between the findings and the data?	■ Yes	☐ No
	Is there congruency between the research methodology and: ● The research question(s) ● The methods to collect data ● The interpretation of results	■ Yes ■ Yes ■ Yes	☐ No ☐ No ☐ No
	Are discussion and conclusions congruent with the purpose and objectives, and supported by literature?	■ Yes	☐ No
	Are conclusions drawn based on the data collected (e.g., the product of the observations or interviews)?	■ Yes	☐ No

Section II: QuaLitative Appraisal (continued)

Qu	Circle the appropriate quality rating below:

a l i t y	**A/B High/Good Quality:** The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; it describes the specific techniques used to enhance the quality of the inquiry. Evidence of at least half or all the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any, of the features listed for high/good quality.
Record findings that help answer the EBP question on page **1**	

Section II: QuaLitative Appraisal

B	Is this a summary of multiple sources of qualitative research evidence with a comprehensive search strategy and rigorous appraisal method (Meta-synthesis)?	☐Yes ☐ This is Level III evidence ☐ No ☐Use the Nonresearch Evidence Appraisal tool (Appendix F)

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the search strategy and criteria for selecting primary studies clearly defined?	☐ Yes	☐ No
	Was there a description of a systematic and thorough process for how data were analyzed?	☐ Yes	☐ No
	● Were methods described for comparing findings from each study?	☐ Yes	☐ No
	● Were methods described for interpreting data?	☐ Yes	☐ No
	● Was sufficient data presented to support the interpretations?	☐ Yes	☐ No
	Did synthesis reflect: ● New insights? ● Discovery of essential features of the phenomena? ● A fuller understanding of the phenomena?	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Are findings clearly linked to and match the data?	☐ Yes	☐ No
	Are findings connected to the purpose, data collection, and analysis?	☐ Yes	☐ No
	Are discussion and conclusions connected to the purpose, objectives, and (if possible) supported by literature?	☐ Yes	☐ No
	Did authors describe clearly how they arrived at the interpretation of the findings?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		
	A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any of the features listed for high/good quality**.**		
	Record findings that help answer the EBP question on page **1**		

Section III: Mixed Methods Appraisal

You will need to appraise both parts of the study independently before appraising the study as a whole. Evaluate the quaNtitative part of the study using Section I. Evaluate the qualitative part of the studying using Section II, then return here to complete appraisal.

Level		Level	Quality
	QuaNtitative Portion		
	QuaLitative Portion		
	The level of mixed methods evidence is based on the sequence of data collection. Quantitative data collection followed by quaLitative (explanatory design) is based on the level of the quaNtitative portion. All other designs (exploratory, convergent, or multiphasic) are Level III evidence. Explanatory sequential designs collected quantitative data first, followed by qualitative. Exploratory sequential designs collect qualitative data first, followed by quantitative. Convergent parallel designs collect quantitative and qualitative data at the same time. Multiphasic designs collect qualitative and quantitative data over more than one phase.		
Quality	After determining the level of evidence, determine the quality of evidence using the considerations below:		
	Was the mixed-methods research design relevant to address both quaNtitative and quaLitative research questions (or objectives)?	☐ Yes	☐ No
	Was the research design relevant to address the quaNtitative and the quaLitative aspects of the mixed-methods question (or objective)?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		
	A High quality: Contains high-quality quaNtitative and quaLitative study components; highly relevant study design; relevant integration of data or results; and careful consideration of the limitations of the chosen approach. **B Good quality:** Contains good-quality quaNtitative and quaLitative study components; relevant study design; moderately relevant integration of data or results; and some discussion of limitations of integration. **C Low quality:** Contains low quality quaNtitative and quaLitative study components; study design not relevant to research questions or objectives; poorly integrated data or results; and no consideration of limits of integration.		
	Record findings that help answer the EBP question on page **1**		

Johns Hopkins Evidence-Based Practice Model for Nursing and Healthcare Professionals
Research Evidence Appraisal Tool

Does this evidence answer the EBP question?

☒ Yes → Continue appraisal ☐ No → STOP, do not continue evidence appraisal

Article Summary Information

Article Title:
The lived experiences of graduate nurses transitioning to professional practice during a pandemic.

Author(s): Casey, Oja, & Makic	Number: 0029-6554
Population: nurses at three different stages of transition in participating in 12-month graduate nurse residency program Size: *n* = 15 Setting: 525-bed level I trauma, safety-net, hospital in a metropolitan city in the Western Mountain Region of the United States.	Publication date: 2021

Complete after appraisal

Evidence level: III
Quality rating: Good

Study findings that help answer the EBP question:

- highlights the absence of self care among NGNs during the pandemic
- describes the lived experiences of NGNs that were transitioning to practice among the covid-19 pandemic
- many themes arrive: being a new nurse is overwhelming, communication barriers worsen with masks, no self-care, need to be flexible
- study highlights the importance of focusing on support of NGNs transition into professional practice

Article Appraisal Workflow

Is this study:

☐ **QuaNtitative** (collection, analysis, and reporting of numerical data)

Numerical data (how many, how much, or how often) are used to formulate facts, uncover patterns, and generalize to a larger population; provides observed effects of a program, problem, or condition. Common methods are polls, surveys, observations, and reviews of records or documents. Data are analyzed using statistical tests.

☒ **Go to Section I for QuaNtitative leveling**

☐ **QuaLitative** (collection, analysis, and reporting of narrative data)

Rich narrative data to gain a deep understanding of phenomena, meanings, perceptions, concepts, and experiences from those experiencing it. Sample sizes are relatively small and determined by the point of redundancy when no new information is gleaned, and key themes are reiterated (data saturation). Data are analyzed using thematic analysis. Often a starting point for studies when little research exists; may use results to design empirical studies. Common methods are focus groups, individual interviews (unstructured or semi-structured), and participation/observations.

☒ **Go to Section II for QuaLitative leveling**

☐ **Mixed methods** (results reported both numerically and narratively)

A study design (a single study or series of studies) that uses rigorous procedures in collecting and analyzing both quaNtitative and quaLitative data. *Note*: QuaNtitative survey designs with open-ended questions do not meet criteria for mixed methods research because those questions are not approached using strict quaLitative methods. Mixed methods studies provide a better understanding of research problems than using either a quaNtitative or quaLitative approach alone.

☒ **Go to Section III for Mixed Methods leveling**

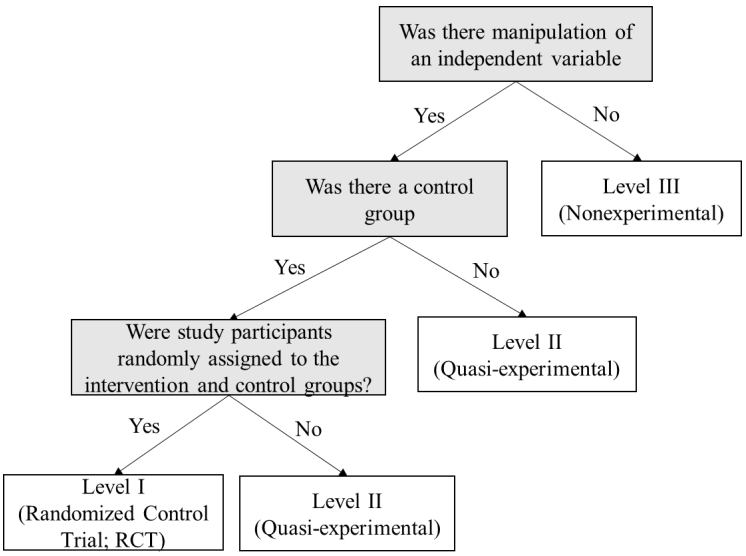
Section I: QuaNtitative Appraisal

A Is this a report of a single research study?

☐ Yes ☐ Continue to decision tree

☐ No ☐ Go to Section I: B

Level



Level I studies include randomized control trials (RCTs) or experimental studies

Level II studies have some degree of investigator control and some manipulation of an independent variable but lack random assignment to groups and may not have a control group

Quality

After determining the level of evidence, determine the quality of evidence using the considerations below:

Does the researcher identify what is known and not known about the problem?	☐ Yes	☐ No	
Does the researcher identify how the study will address any gaps in knowledge?	☐ Yes	☐ No	
Was the purpose of the study clearly presented?	☐ Yes	☐ No	
Was the literature review current (most sources within the past five years or a seminal study)?	☐ Yes	☐ No	
Was sample size sufficient based on study design and rationale?	☐ Yes	☐ No	
If there is a control group: ● Were the characteristics and/or demographics similar in both the control and intervention groups? ● If multiple settings were used, were the settings similar? ● Were all groups equally treated except for the intervention group(s)?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No	☐ N/A ☐ N/A ☐N/A
Are data collection methods described clearly?	☐ Yes	☐ No	
Were the instruments reliable (Cronbach's α [alpha] ≥ 0.70)?	☐ Yes	☐ No	☐ N/A
Was instrument validity discussed?	☐ Yes	☐ No	☐ N/A
If surveys or questionnaires were used, was the response rate ≥ 25%?	☐ Yes	☐ No	☐ N/A
Were the results presented clearly?	☐ Yes	☐ No	
If tables were presented, was the narrative consistent with the table content?	☐ Yes	☐ No	☐ N/A
Were study limitations identified and addressed?	☐ Yes	☐ No	
Were conclusions based on results?	☐ Yes	☐ No	

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:

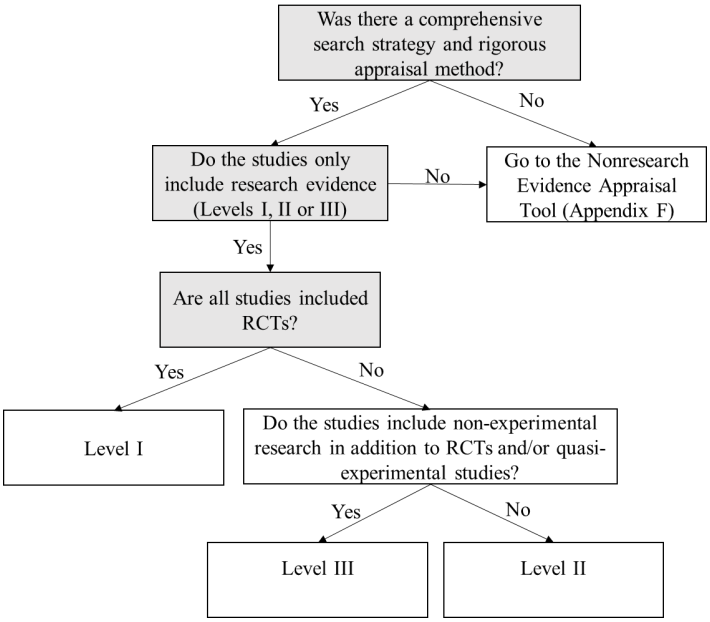
	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence. **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence. **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section I: QuaNtitative Appraisal (continued)

B Is this a summary of multiple sources of research evidence?

☐ Yes
Continue to decision tree
☐ No
Use the Nonresearch Evidence Appraisal tool (Appendix F)

Level



Quality

After determining level of evidence, determine the quality of evidence using the considerations below:		
Were the variables of interest clearly identified?	☐ Yes	☐ No
Was the search comprehensive and reproducible? ● Key terms stated ● Multiple databases searched and identified ● Inclusion and exclusion criteria stated	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
Was there a flow diagram that included the number of studies eliminated at each level of review?	☐ Yes	☐ No
Were details of included studies presented (design, sample, methods, results, outcomes, strengths, and limitations)?	☐ Yes	☐ No
Were methods for appraising the strength of evidence (level and quality) described?	☐ Yes	☐ No
Were conclusions based on results? ●Results were interpreted ●Conclusions flowed logically from the research question, results, and interpretation	 ☐ Yes ☐ Yes	 ☐ No ☐ No
Did the systematic review include a section addressing limitations and how they were addressed?	☐ Yes	☐ No

Section I: QuaNtitative Appraisal (continued)

Qua

Circle the appropriate quality rating below:

l i t y	**A High quality:** Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; recommendations consistent with the study's findings and include thorough reference to scientific evidence **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section II: QuaLitative Appraisal

A Is this a report of a single research study? ☒ Yes ☐ This is Level III evidence ☐ No ☐ Go to Section II: B

Quality

After determining level of evidence, determine the quality of evidence using the considerations below:		
Was there a clearly identifiable and articulated: ● Purpose? ● Research question? ● Justification for design and/or theoretical framework used?	☒ Yes ☒ Yes ☒ Yes	☐ No ☐ No ☐ No
Do participants have knowledge of the subject the researchers are trying to explore?	☒ Yes	☐ No
Were characteristics of study participants described?	☒ Yes	☐ No
Was a verification process used in every step of data analysis (e.g., triangulation, response validation, independent double check, member checking)? (Credibility)	☒ Yes	☐ No
Does the researcher provide sufficient documentation of their thinking, decisions, and methods related to the study allowing the reader to follow their decision-making (e.g., how themes and categories were formulated)? (Confirmability)	☒ Yes	☐ No
Does the researcher provide an accurate and rich description of findings by providing the information necessary to evaluate the analysis of data? (Fittingness)	☒ Yes	☐ No
Does the researcher acknowledge and/or address their own role and potential influence during data collection?	☒ Yes	☐ No
Was sampling adequate, as evidenced by achieving data saturation?	☒ Yes	☐ No
Does the researcher provide illustrations from the data? ● If yes, do the provided illustrations support conclusions?	☐ Yes ☐ Yes	☒ No ☐ No
Is there congruency between the findings and the data?	☒ Yes	☐ No
Is there congruency between the research methodology and: ● The research question(s) ● The methods to collect data ● The interpretation of results	☒ Yes ☒ Yes ☒ Yes	☐ No ☐ No ☐ No
Are discussion and conclusions congruent with the purpose and objectives, and supported by literature?	☒ Yes	☐ No
Are conclusions drawn based on the data collected (e.g., the product of the observations or interviews)?	☒ Yes	☐ No

Section II: QuaLitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; it describes the specific techniques used to enhance the quality of the inquiry. Evidence of at least half or all the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any, of the features listed for high/good quality.
	Record findings that help answer the EBP question on page **1**

B	Is this a summary of multiple sources of qualitative research evidence with a comprehensive search strategy and rigorous appraisal method (Meta-synthesis)?	☐Yes ☐ This is Level III evidence ☐ No ☐Use the Nonresearch Evidence Appraisal tool (Appendix F)	
Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the search strategy and criteria for selecting primary studies clearly defined?	☐ Yes	☐ No
	Was there a description of a systematic and thorough process for how data were analyzed?	☐ Yes	☐ No
	● Were methods described for comparing findings from each study?	☐ Yes	☐ No
	● Were methods described for interpreting data?	☐ Yes	☐ No
	● Was sufficient data presented to support the interpretations?	☐ Yes	☐ No
	Did synthesis reflect: ● New insights? ● Discovery of essential features of the phenomena? ● A fuller understanding of the phenomena?	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Are findings clearly linked to and match the data?	☐ Yes	☐ No
	Are findings connected to the purpose, data collection, and analysis?	☐ Yes	☐ No
	Are discussion and conclusions connected to the purpose, objectives, and (if possible) supported by literature?	☐ Yes	☐ No
	Did authors describe clearly how they arrived at the interpretation of the findings?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		

A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report:

- *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated.
- *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence.
- *Verification*: The process of checking, confirming, and ensuring methodologic coherence.
- *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations.
- *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated.
- *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature.

C Low quality: Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any of the features listed for high/good quality**.**

Record findings that help answer the EBP question on page **1**

Section III: Mixed Methods Appraisal

You will need to appraise both parts of the study independently before appraising the study as a whole. Evaluate the quaNtitative part of the study using Section I. Evaluate the qualitative part of the studying using Section II, then return here to complete appraisal.

Level		Level	Quality
	QuaNtitative Portion		
	QuaLitative Portion		
	The level of mixed methods evidence is based on the sequence of data collection. Quantitative data collection followed by quaLitative (explanatory design) is based on the level of the quaNtitative portion. All other designs (exploratory, convergent, or multiphasic) are Level III evidence. Explanatory sequential designs collected quantitative data first, followed by qualitative. Exploratory sequential designs collect qualitative data first, followed by quantitative. Convergent parallel designs collect quantitative and qualitative data at the same time. Multiphasic designs collect qualitative and quantitative data over more than one phase.		
Quality	After determining the level of evidence, determine the quality of evidence using the considerations below:		
	Was the mixed-methods research design relevant to address both quaNtitative and quaLitative research questions (or objectives)?	☐ Yes	☐ No
	Was the research design relevant to address the quaNtitative and the quaLitative aspects of the mixed-methods question (or objective)?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		
	A High quality: Contains high-quality quaNtitative and quaLitative study components; highly relevant study design; relevant integration of data or results; and careful consideration of the limitations of the chosen approach. **B Good quality:** Contains good-quality quaNtitative and quaLitative study components; relevant study design; moderately relevant integration of data or results; and some discussion of limitations of integration. **C Low quality:** Contains low quality quaNtitative and quaLitative study components; study design not relevant to research questions or objectives; poorly integrated data or results; and no consideration of limits of integration.		

Record findings that help answer the EBP question on page **1**

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Research Evidence Appraisal Tool

Does this evidence answer the EBP question?
☒ Yes → Continue appraisal ☐ No → STOP, do not continue evidence appraisal

Article Summary Information

Article Title: COVID-19 pandemic impact on experiences and perceptions of nurse graduates.

Author(s): Crimson, Mansfield, Hiatt, Christensen, & Cloyes	Number: 1532-8481 (Electronic) 87557223 (linking)
Population: BSN, RN-BSN, and DNP students who graduated between December 2019 and April 2020 Size: *n* = 82 Setting: online survey in the US	Publication date: June 17, 2021

Complete after appraisal

Evidence level: III
Quality rating: High

Study findings that help answer the EBP question:

- The pandemic exacerbated the challenges of NGNs
- educators and the healthcare organizations must work to ensure NGNs receive support for a successful transition
- perception of NGNs perceptions on how the pandemic affected their transition to practice
- how the pandemic limited academic and workplace training

Article Appraisal Workflow

Is this study:

☐ **QuaNtitative**(collection, analysis, and reporting of numerical data)

Numerical data (how many, how much, or how often) are used to formulate facts, uncover patterns, and generalize to a larger population; provides observed effects of a program, problem, or condition. Common methods are polls, surveys, observations, and reviews of records or documents. Data are analyzed using statistical tests.

☒ **Go to Section I for QuaNtitative leveling**

☐ **QuaLitative** (collection, analysis, and reporting of narrative data)

Rich narrative data to gain a deep understanding of phenomena, meanings, perceptions, concepts, and experiences from those experiencing it. Sample sizes are relatively small and determined by the point of redundancy when no new information is gleaned, and key themes are reiterated (data saturation). Data are analyzed using thematic analysis. Often a starting point for studies when little research exists; may use results to design empirical studies. Common methods are focus groups, individual interviews (unstructured or semi-structured), and participation/observations.

☒ **Go to Section II for QuaLitative leveling**

☐ **Mixed methods**(results reported both numerically and narratively)

A study design (a single study or series of studies) that uses rigorous procedures in collecting and analyzing both quaNtitative and quaLitative data. *Note*: QuaNtitative survey designs with open-ended questions do not meet criteria for mixed methods research because those questions are not approached using strict quaLitative methods. Mixed methods studies provide a better understanding of research problems than using either a quaNtitative or quaLitative approach alone.

☒ **Go to Section III for Mixed Methods leveling**

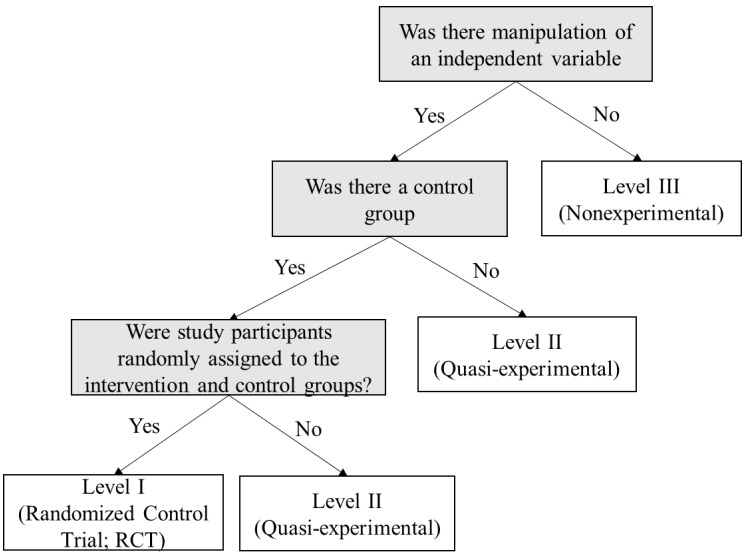
Section I: QuaNtitative Appraisal

A Is this a report of a single research study?

☐ Yes☐ Continue to decision tree

☐ No☐ Go to Section I: B

Level



Level I studies include randomized control trials (RCTs) or experimental studies

Level II studies have some degree of investigator control and some manipulation of an independent variable but lack random assignment to groups and may not have a control group

Quality

After determining the level of evidence, determine the quality of evidence using the considerations below:

Does the researcher identify what is known and not known about the problem?	☐ Yes	☐ No	
Does the researcher identify how the study will address any gaps in knowledge?	☐ Yes	☐ No	
Was the purpose of the study clearly presented?	☐ Yes	☐ No	
Was the literature review current (most sources within the past five years or a seminal study)?	☐ Yes	☐ No	
Was sample size sufficient based on study design and rationale?	☐ Yes	☐ No	
If there is a control group: ● Were the characteristics and/or demographics similar in both the control and intervention groups? ● If multiple settings were used, were the settings similar? ● Were all groups equally treated except for the intervention group(s)?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No	☐ N/A ☐ N/A ☐ N/A
Are data collection methods described clearly?	☐ Yes	☐ No	
Were the instruments reliable (Cronbach's α [alpha] ≥ 0.70)?	☐ Yes	☐ No	☐ N/A
Was instrument validity discussed?	☐ Yes	☐ No	☐ N/A
If surveys or questionnaires were used, was the response rate ≥ 25%?	☐ Yes	☐ No	☐ N/A
Were the results presented clearly?	☐ Yes	☐ No	
If tables were presented, was the narrative consistent with the table content?	☐ Yes	☐ No	☐ N/A
Were study limitations identified and addressed?	☐ Yes	☐ No	
Were conclusions based on results?	☐ Yes	☐ No	

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:

	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence. **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence. **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

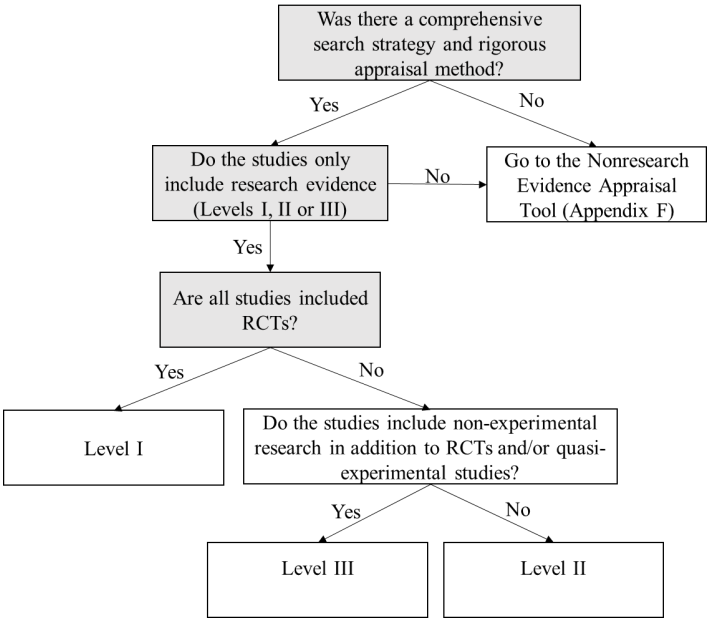
Section I: QuaNtitative Appraisal (continued)

B Is this a summary of multiple sources of research evidence?

☐ Yes ☐ Continue to decision tree

☐ No ☐ Use the Nonresearch Evidence Appraisal tool (Appendix F)

Level



Quality

After determining level of evidence, determine the quality of evidence using the considerations below:

Were the variables of interest clearly identified?	☐ Yes	☐ No
Was the search comprehensive and reproducible? ● Key terms stated ● Multiple databases searched and identified ● Inclusion and exclusion criteria stated	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
Was there a flow diagram that included the number of studies eliminated at each level of review?	☐ Yes	☐ No
Were details of included studies presented (design, sample, methods, results, outcomes, strengths, and limitations)?	☐ Yes	☐ No
Were methods for appraising the strength of evidence (level and quality) described?	☐ Yes	☐ No
Were conclusions based on results? ●Results were interpreted ●Conclusions flowed logically from the research question, results, and interpretation	 ☐ Yes ☐ Yes	 ☐ No ☐ No
Did the systematic review include a section addressing limitations and how they were addressed?	☐ Yes	☐ No

Section I: QuaNtitative Appraisal (continued)

Qua

Circle the appropriate quality rating below:

l i t y	**A High quality:** Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; recommendations consistent with the study's findings and include thorough reference to scientific evidence **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section II: QuaLitative Appraisal

A Is this a report of a single research study?

☒ Yes ☐ This is Level III evidence
☐ No ☐ Go to Section II: B

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Was there a clearly identifiable and articulated: ● Purpose? ● Research question? ● Justification for design and/or theoretical framework used?	☒ Yes ☒ Yes ☒ Yes	☐ No ☐ No ☐ No
	Do participants have knowledge of the subject the researchers are trying to explore?	☒ Yes	☐ No
	Were characteristics of study participants described?	☒ Yes	☐ No
	Was a verification process used in every step of data analysis (e.g., triangulation, response validation, independent double check, member checking)? (Credibility)	☒ Yes	☐ No
	Does the researcher provide sufficient documentation of their thinking, decisions, and methods related to the study allowing the reader to follow their decision-making (e.g., how themes and categories were formulated)? (Confirmability)	☒ Yes	☐ No
	Does the researcher provide an accurate and rich description of findings by providing the information necessary to evaluate the analysis of data? (Fittingness)	☒ Yes	☐ No
	Does the researcher acknowledge and/or address their own role and potential influence during data collection?	☒ Yes	☐ No
	Was sampling adequate, as evidenced by achieving data saturation?	☒ Yes	☐ No
	Does the researcher provide illustrations from the data? ● If yes, do the provided illustrations support conclusions?	☒ Yes ☒ Yes	☐ No ☐ No
	Is there congruency between the findings and the data?	☒ Yes	☐ No
	Is there congruency between the research methodology and: ● The research question(s) ● The methods to collect data ● The interpretation of results	☒ Yes ☒ Yes ☒ Yes	☐ No ☐ No ☐ No
	Are discussion and conclusions congruent with the purpose and objectives, and supported by literature?	☒ Yes	☐ No
	Are conclusions drawn based on the data collected (e.g., the product of the observations or interviews)?	☒ Yes	☐ No

Section II: QuaLitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; it describes the specific techniques used to enhance the quality of the inquiry. Evidence of at least half or all the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any, of the features listed for high/good quality.
	Record findings that help answer the EBP question on page **1**

B	Is this a summary of multiple sources of qualitative research evidence with a comprehensive search strategy and rigorous appraisal method (Meta-synthesis)?	☐Yes ☐ This is Level III evidence ☐No ☐Use the Nonresearch Evidence Appraisal tool (Appendix F)

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the search strategy and criteria for selecting primary studies clearly defined?	☐ Yes	☐ No
	Was there a description of a systematic and thorough process for how data were analyzed?	☐ Yes	☐ No
	● Were methods described for comparing findings from each study?	☐ Yes	☐ No
	● Were methods described for interpreting data?	☐ Yes	☐ No
	● Was sufficient data presented to support the interpretations?	☐ Yes	☐ No
	Did synthesis reflect: ● New insights? ● Discovery of essential features of the phenomena? ● A fuller understanding of the phenomena?	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Are findings clearly linked to and match the data?	☐ Yes	☐ No
	Are findings connected to the purpose, data collection, and analysis?	☐ Yes	☐ No
	Are discussion and conclusions connected to the purpose, objectives, and (if possible) supported by literature?	☐ Yes	☐ No
	Did authors describe clearly how they arrived at the interpretation of the findings?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		

A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report:

- *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated.
- *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence.
- *Verification*: The process of checking, confirming, and ensuring methodologic coherence.
- *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations.
- *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated.
- *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature.

C Low quality: Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any of the features listed for high/good quality**.**

Record findings that help answer the EBP question on page **1**

Section III: Mixed Methods Appraisal

You will need to appraise both parts of the study independently before appraising the study as a whole. Evaluate the quaNtitative part of the study using Section I. Evaluate the qualitative part of the studying using Section II, then return here to complete appraisal.

Level

	Level	Quality
QuaNtitative Portion		
QuaLitative Portion		

The level of mixed methods evidence is based on the sequence of data collection. Quantitative data collection followed by quaLitative (explanatory design) is based on the level of the quaNtitative portion. All other designs (exploratory, convergent, or multiphasic) are Level III evidence.

Explanatory sequential designs collected quantitative data first, followed by qualitative.
Exploratory sequential designs collect qualitative data first, followed by quantitative.
Convergent parallel designs collect quantitative and qualitative data at the same time.
Multiphasic designs collect qualitative and quantitative data over more than one phase.

Quality

After determining the level of evidence, determine the quality of evidence using the considerations below:

Was the mixed-methods research design relevant to address both quaNtitative and quaLitative research questions (or objectives)?	☐ Yes	☐ No
Was the research design relevant to address the quaNtitative and the quaLitative aspects of the mixed-methods question (or objective)?	☐ Yes	☐ No

Circle the appropriate quality rating below:

A High quality: Contains high-quality quaNtitative and quaLitative study components; highly relevant study design; relevant integration of data or results; and careful consideration of the limitations of the chosen approach.

B Good quality: Contains good-quality quaNtitative and quaLitative study components; relevant study design; moderately relevant integration of data or results; and some discussion of limitations of integration.

C Low quality: Contains low quality quaNtitative and quaLitative study components; study design not relevant to research questions or objectives; poorly integrated data or results; and no consideration of limits of integration.

Record findings that help answer the EBP question on page **1**

Johns Hopkins Evidence-Based Practice Model for Nursing and Healthcare Professionals
Research Evidence Appraisal Tool

Does this evidence answer the EBP question?

☒ Yes → Continue appraisal ☐ No → STOP, do not continue evidence appraisal

Article Summary Information

Article Title:
Novice Nurses' Experiences Caring for Acutely Ill Patients during a Pandemic.

Author(s): Naylor, Hadenfeldt, & Timmons	Number: 2039-439X
Population: NGN working in acute care settings during covid-19 Size: *n* = 13 Setting: facilities providing acute care in Phoenix, Arizona USA	Publication date: June 2021

Complete after appraisal

Evidence level: III
Quality rating: High

Study findings that help answer the EBP question:

- NGNs working with patients with devastating illnesses as they transitioned to practice during the COVID-19 pandemic
- experiences of novice nurses transitioning to practice in acute care settings during covid-19
- themes that emerged: dealing with death, use of PPE, caring for high acuity patients with limited training, difficulty working while short staffed, support from the health care team, how did nursing school prepare for a pandemic
- NGNs felt overwhelmed and at times it was hard to cope
    - support from peers and coping skills learned during nursing school helped
    - need to find interventions to help support NGNs

Article Appraisal Workflow

Is this study:

☐ **QuaNtitative** (collection, analysis, and reporting of numerical data)

Numerical data (how many, how much, or how often) are used to formulate facts, uncover patterns, and generalize to a larger population; providing observed effects of a program, problem, or condition. Common methods are polls, surveys, observations, and reviews of records or documents. Data are analyzed using statistical tests.

☒ **Go to Section I for QuaNtitative leveling**

☐ **QuaLitative** (collection, analysis, and reporting of narrative data)

Rich narrative data to gain a deep understanding of phenomena, meanings, perceptions, concepts, and experiences from those experiencing it. Sample sizes are relatively small and determined by the point of redundancy when no new information is gleaned, and key themes are reiterated (data saturation). Data are analyzed using thematic analysis. Often a starting point for studies when little research exists; may use results to design empirical studies. Common methods are focus groups, individual interviews (unstructured or semi-structured), and participation/observations.

☒ **Go to Section II for QuaLitative leveling**

☐ **Mixed methods** (results reported both numerically and narratively)

A study design (a single study or series of studies) that uses rigorous procedures in collecting and analyzing both quaNtitative and quaLitative data. *Note*: QuaNtitative survey designs with open-ended questions do not meet criteria for mixed methods research because those questions are not approached using strict quaLitative methods. Mixed methods studies provide a better understanding of research problems than using either a quaNtitative or quaLitative approach alone.

☒ **Go to Section III for Mixed Methods leveling**

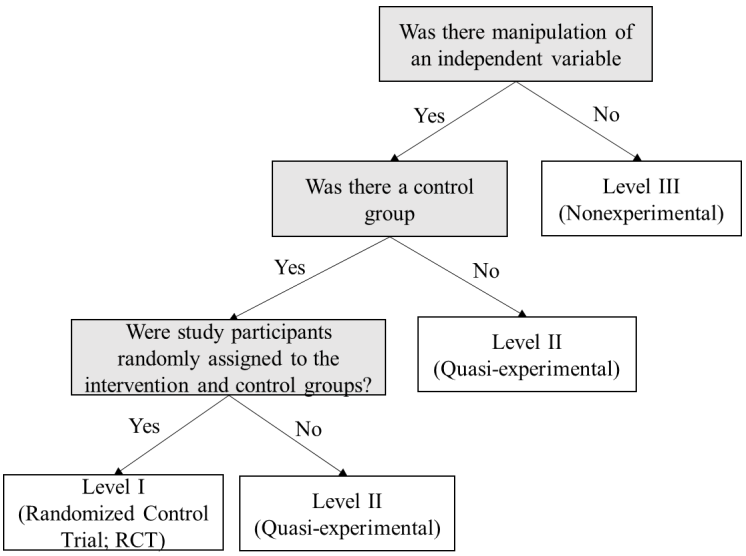
Section I: QuaNtitative Appraisal

A Is this a report of a single research study?

☐ Yes ☐ Continue to decision tree

☐ No ☐ Go to Section I: B

Level



Level I studies include randomized control trials (RCTs) or experimental studies

Level II studies have some degree of investigator control and some manipulation of an independent variable but lack random assignment to groups and may not have a control group

Quality

After determining the level of evidence, determine the quality of evidence using the considerations below:

Does the researcher identify what is known and not known about the problem?	☐ Yes	☐ No	
Does the researcher identify how the study will address any gaps in knowledge?	☐ Yes	☐ No	
Was the purpose of the study clearly presented?	☐ Yes	☐ No	
Was the literature review current (most sources within the past five years or a seminal study)?	☐ Yes	☐ No	
Was sample size sufficient based on study design and rationale?	☐ Yes	☐ No	
If there is a control group: ● Were the characteristics and/or demographics similar in both the control and intervention groups? ● If multiple settings were used, were the settings similar? ● Were all groups equally treated except for the intervention group(s)?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No	☐ N/A ☐ N/A ☐N/A
Are data collection methods described clearly?	☐ Yes	☐ No	
Were the instruments reliable (Cronbach's α [alpha] ≥ 0.70)?	☐ Yes	☐ No	☐ N/A
Was instrument validity discussed?	☐ Yes	☐ No	☐ N/A
If surveys or questionnaires were used, was the response rate ≥ 25%?	☐ Yes	☐ No	☐ N/A
Were the results presented clearly?	☐ Yes	☐ No	
If tables were presented, was the narrative consistent with the table content?	☐ Yes	☐ No	☐ N/A
Were study limitations identified and addressed?	☐ Yes	☐ No	
Were conclusions based on results?	☐ Yes	☐ No	

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:

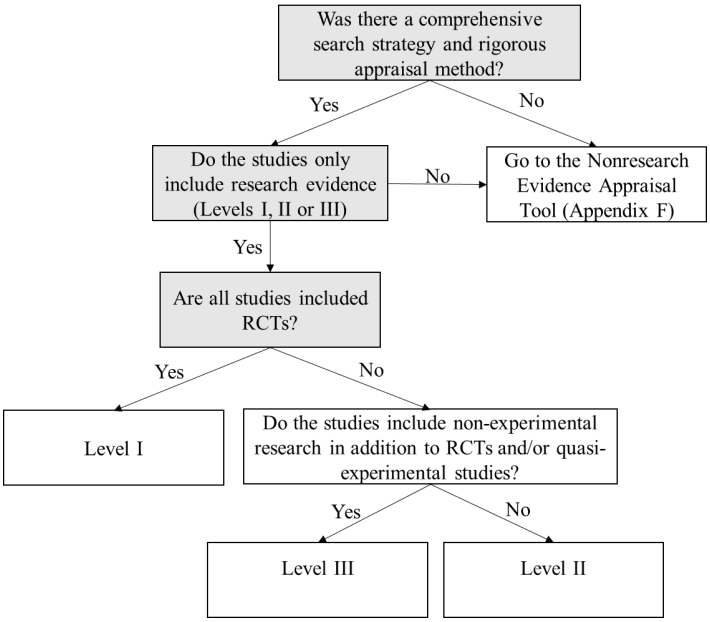
	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence. **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence. **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section I: QuaNtitative Appraisal (continued)

B Is this a summary of multiple sources of research evidence?

☐ Yes ☐ Continue to decision tree

☐ No ☐ Use the Nonresearch Evidence Appraisal tool (Appendix F)

Level	

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the variables of interest clearly identified?	☐ Yes	☐ No
	Was the search comprehensive and reproducible? ● Key terms stated ● Multiple databases searched and identified ● Inclusion and exclusion criteria stated	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Was there a flow diagram that included the number of studies eliminated at each level of review?	☐ Yes	☐ No
	Were details of included studies presented (design, sample, methods, results, outcomes, strengths, and limitations)?	☐ Yes	☐ No
	Were methods for appraising the strength of evidence (level and quality) described?	☐ Yes	☐ No
	Were conclusions based on results? ●Results were interpreted ●Conclusions flowed logically from the research question, results, and interpretation	 ☐ Yes ☐ Yes	 ☐ No ☐ No
	Did the systematic review include a section addressing limitations and how they were addressed?	☐ Yes	☐ No

Section I: QuaNtitative Appraisal (continued)

Qua	Circle the appropriate quality rating below:

l i t y	**A High quality:** Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; recommendations consistent with the study's findings and include thorough reference to scientific evidence **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section II: QuaLitative Appraisal

A Is this a report of a single research study? ☐Yes ☐ This is Level III evidence ☐No ☐ Go to Section II: B

Quality

After determining level of evidence, determine the quality of evidence using the considerations below:		
Was there a clearly identifiable and articulated: ● Purpose? ● Research question? ● Justification for design and/or theoretical framework used?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No
Do participants have knowledge of the subject the researchers are trying to explore?	☐ Yes	☐ No
Were characteristics of study participants described?	☐ Yes	☐ No
Was a verification process used in every step of data analysis (e.g., triangulation, response validation, independent double check, member checking)? (Credibility)	☐ Yes	☐ No
Does the researcher provide sufficient documentation of their thinking, decisions, and methods related to the study allowing the reader to follow their decision-making (e.g., how themes and categories were formulated)? (Confirmability)	☐ Yes	☐ No
Does the researcher provide an accurate and rich description of findings by providing the information necessary to evaluate the analysis of data? (Fittingness)	☐ Yes	☐ No
Does the researcher acknowledge and/or address their own role and potential influence during data collection?	☐ Yes	☐ No
Was sampling adequate, as evidenced by achieving data saturation?	☐ Yes	☐ No
Does the researcher provide illustrations from the data? ● If yes, do the provided illustrations support conclusions?	☐ Yes ☐ Yes	☐ No ☐ No
Is there congruency between the findings and the data?	☐ Yes	☐ No
Is there congruency between the research methodology and: ● The research question(s) ● The methods to collect data ● The interpretation of results	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No
Are discussion and conclusions congruent with the purpose and objectives, and supported by literature?	☐ Yes	☐ No
Are conclusions drawn based on the data collected (e.g., the product of the observations or interviews)?	☐ Yes	☐ No

Section II: QuaLitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; it describes the specific techniques used to enhance the quality of the inquiry. Evidence of at least half or all the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any, of the features listed for high/good quality.
	Record findings that help answer the EBP question on page **1**

Section II: QuaLitative Appraisal

B	Is this a summary of multiple sources of qualitative research evidence with a comprehensive search strategy and rigorous appraisal method (Meta-synthesis)?	☐Yes ☐ This is Level III evidence ☐ No ☐Use the Nonresearch Evidence Appraisal tool (Appendix F)	
Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the search strategy and criteria for selecting primary studies clearly defined?	☐ Yes	☐ No
	Was there a description of a systematic and thorough process for how data were analyzed?	☐ Yes	☐ No
	● Were methods described for comparing findings from each study?	☐ Yes	☐ No
	● Were methods described for interpreting data?	☐ Yes	☐ No
	● Was sufficient data presented to support the interpretations?	☐ Yes	☐ No
	Did synthesis reflect: ● New insights? ● Discovery of essential features of the phenomena? ● A fuller understanding of the phenomena?	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Are findings clearly linked to and match the data?	☐ Yes	☐ No
	Are findings connected to the purpose, data collection, and analysis?	☐ Yes	☐ No
	Are discussion and conclusions connected to the purpose, objectives, and (if possible) supported by literature?	☐ Yes	☐ No
	Did authors describe clearly how they arrived at the interpretation of the findings?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		
	A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any of the features listed for high/good quality**.**		

Record findings that help answer the EBP question on page **1**

Section III: Mixed Methods Appraisal

You will need to appraise both parts of the study independently before appraising the study as a whole. Evaluate the quaNtitative part of the study using Section I. Evaluate the qualitative part of the studying using Section II, then return here to complete appraisal.

Level		Level	Quality
	QuaNtitative Portion		
	QuaLitative Portion		
	The level of mixed methods evidence is based on the sequence of data collection. Quantitative data collection followed by quaLitative (explanatory design) is based on the level of the quaNtitative portion. All other designs (exploratory, convergent, or multiphasic) are Level III evidence. Explanatory sequential designs collected quantitative data first, followed by qualitative. Exploratory sequential designs collect qualitative data first, followed by quantitative. Convergent parallel designs collect quantitative and qualitative data at the same time. Multiphasic designs collect qualitative and quantitative data over more than one phase.		
Quality	After determining the level of evidence, determine the quality of evidence using the considerations below:		
	Was the mixed-methods research design relevant to address both quaNtitative and quaLitative research questions (or objectives)?	☐ Yes	☐ No
	Was the research design relevant to address the quaNtitative and the quaLitative aspects of the mixed-methods question (or objective)?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		
	A High quality: Contains high-quality quaNtitative and quaLitative study components; highly relevant study design; relevant integration of data or results; and careful consideration of the limitations of the chosen approach. **B Good quality:** Contains good-quality quaNtitative and quaLitative study components; relevant study design; moderately relevant integration of data or results; and some discussion of limitations of integration. **C Low quality:** Contains low quality quaNtitative and quaLitative study components; study design not relevant to research questions or objectives; poorly integrated data or results; and no consideration of limits of integration.		

Record findings that help answer the EBP question on page **1**

Johns Hopkins Evidence-Based Practice Model for Nursing and Healthcare Professionals
Research Evidence Appraisal Tool

Does this evidence answer the EBP question?
■ Yes →Continue appraisal ☐No →STOP, do not continue evidence appraisal

Article Summary Information

Article Title:
Impact of COVID-19 on New Graduate Nurses' Transition to Practice: Loss or Gain?

Author(s): Smith, Buckner, Kessee, Robbins, Horst & Ivory	Number: 1538-9855 (Electronic) 03633624 (linking)
Population: NGNs in their final semester of clinical practice Size: *n* = 340 NGNs Setting: academic medical center	Publication date: 2021

Complete after appraisal

Evidence level: III
Quality rating:

Study findings that help answer the EBP question:

- looks at the impact of covid-19 and the competence of NGNs for professional practice
- how the change to virtual clinical practices challenged NGNs transition to professional practice
    - looks at the fear of missing out on details or doing something wrong in patient care
    - needs for NGNs: preceptor support, guidance, teaching, continued practice of skills

Article Appraisal Workflow

Is this study:

☐ **QuaNtitative**(collection, analysis, and reporting of numerical data)

Numerical data (how many, how much, or how often) are used to formulate facts, uncover patterns, and generalize to a larger population; provides observed effects of a program, problem, or condition. Common methods are polls, surveys, observations, and reviews of records or documents. Data are analyzed using statistical tests.

☒ **Go to Section I for QuaNtitative leveling**

☐ **QuaLitative**(collection, analysis, and reporting of narrative data)

Rich narrative data to gain a deep understanding of phenomena, meanings, perceptions, concepts, and experiences from those experiencing it. Sample sizes are relatively small and determined by the point of redundancy when no new information is gleaned, and key themes are reiterated (data saturation). Data are analyzed using thematic analysis. Often a starting point for studies when little research exists; may use results to design empirical studies. Common methods are focus groups, individual interviews (unstructured or semi-structured), and participation/observations.

☒ **Go to Section II for QuaLitative leveling**

☐ **Mixed methods** (results reported both numerically and narratively)

A study design (a single study or series of studies) that uses rigorous procedures in collecting and analyzing both quaNtitative and quaLitative data. *Note*: QuaNtitative survey designs with open-ended questions do not meet criteria for mixed methods research because those questions are not approached using strict quaLitative methods. Mixed methods studies provide a better understanding of research problems than using either a quaNtitative or quaLitative approach alone.

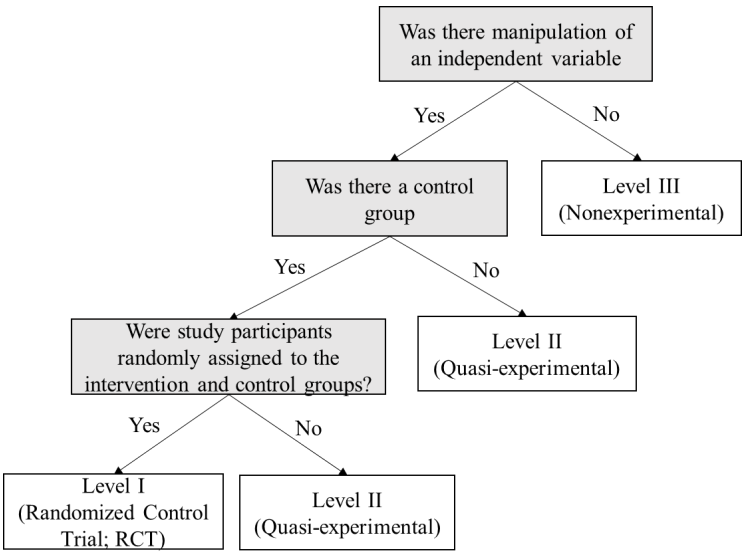
☒ **Go to Section III for Mixed Methods leveling**

Section I: QuaNtitative Appraisal

A Is this a report of a single research study?

☐ Yes →Continue to decision tree ☐ No →Go to Section I: B

Level



Level I studies include randomized control trials (RCTs) or experimental studies

Level II studies have some degree of investigator control and some manipulation of an independent variable but lack random assignment to groups and may not have a control group

Quality	After determining the level of evidence, determine the quality of evidence using the considerations below:			
	Does the researcher identify what is known and not known about the problem?	☒ Yes	☐ No	
	Does the researcher identify how the study will address any gaps in knowledge?	☒ Yes	☐ No	
	Was the purpose of the study clearly presented?	☒ Yes	☐ No	
	Was the literature review current (most sources within the past five years or a seminal study)?	☒ Yes	☐ No	
	Was sample size sufficient based on study design and rationale?	☒ Yes	☐ No	
	If there is a control group: ● Were the characteristics and/or demographics similar in both the control and intervention groups? ● If multiple settings were used, were the settings similar? ● Were all groups equally treated except for the intervention group(s)?	☒ Yes ☒ Yes ☒ Yes	☐ No ☐ No ☐ No	☐ N/A ☐ N/A ☐ N/A
	Are data collection methods described clearly?	☒ Yes	☐ No	
	Were the instruments reliable (Cronbach's α [alpha] ≥ 0.70)?	☐ Yes	☐ No	☒ N/A
	Was instrument validity discussed?	☒ Yes	☐ No	☐ N/A
	If surveys or questionnaires were used, was the response rate ≥ 25%?	☐ Yes	☐ No	☒ N/A
	Were the results presented clearly?	☒ Yes	☐ No	
	If tables were presented, was the narrative consistent with the table content?	☐ Yes	☐ No	☒ N/A
	Were study limitations identified and addressed?	☒ Yes	☐ No	
	Were conclusions based on results?	☒ Yes	☐ No	

Section I: QuaNtitative Appraisal (continued)

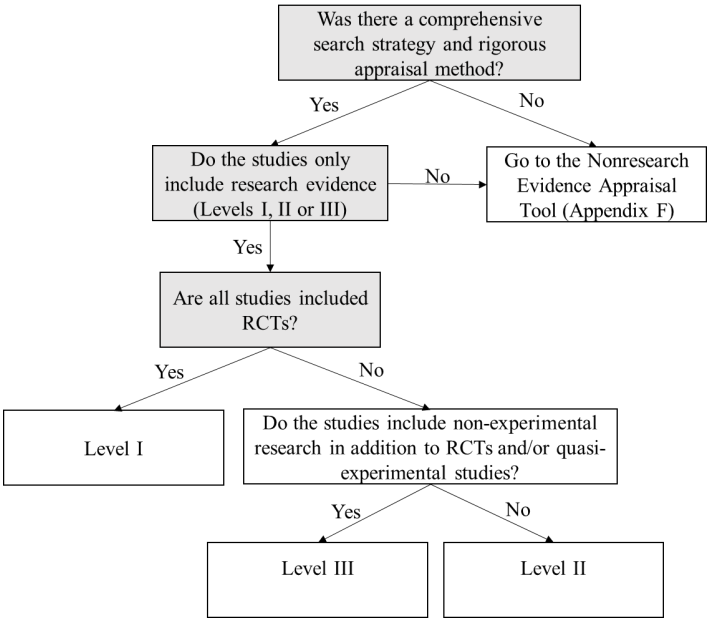
	Circle the appropriate quality rating below:
Quality	**A High quality:** Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence. **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence. **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.

Record findings that help answer the EBP question on page **1**

Section I: QuaNtitative Appraisal (continued)

B Is this a summary of multiple sources of research evidence?

☐ Yes ☐ Continue to decision tree ☐ No ☐ Us

	e the Nonresearch Evidence Appraisal tool (Appendix F)		
Level			
Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the variables of interest clearly identified?	☐ Yes	☐ No
	Was the search comprehensive and reproducible? ● Key terms stated ● Multiple databases searched and identified ● Inclusion and exclusion criteria stated	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No

	Was there a flow diagram that included the number of studies eliminated at each level of review?	☐ Yes	☐ No
	Were details of included studies presented (design, sample, methods, results, outcomes, strengths, and limitations)?	☐ Yes	☐ No
	Were methods for appraising the strength of evidence (level and quality) described?	☐ Yes	☐ No
	Were conclusions based on results? ● Results were interpreted ● Conclusions flowed logically from the research question, results, and interpretation	 ☐ Yes ☐ Yes	 ☐ No ☐ No
	Did the systematic review include a section addressing limitations and how they were addressed?	☐ Yes	☐ No

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; recommendations consistent with the study's findings and include thorough reference to scientific evidence **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section II: QuaLitative Appraisal

A Is this a report of a single research study? ☒ Yes ☐ This is Level III evidence ☐ No ☐ Go to Section II: B

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Was there a clearly identifiable and articulated: • Purpose? • Research question? • Justification for design and/or theoretical framework used?	☒ Yes ☒ Yes ☒ Yes	☐ No ☐ No ☐ No
	Do participants have knowledge of the subject the researchers are trying to explore?	☒ Yes	☐ No
	Were characteristics of study participants described?	☒ Yes	☐ No
	Was a verification process used in every step of data analysis (e.g., triangulation, response validation, independent double check, member checking)? (Credibility)	☒ Yes	☐ No
	Does the researcher provide sufficient documentation of their thinking, decisions, and methods related to the study allowing the reader to follow their decision-making (e.g., how themes and categories were formulated)? (Confirmability)	☒ Yes	☐ No
	Does the researcher provide an accurate and rich description of findings by providing the information necessary to evaluate the analysis of data? (Fittingness)	☒ Yes	☐ No
	Does the researcher acknowledge and/or address their own role and potential influence during data collection?	☐ Yes	☒ No
	Was sampling adequate, as evidenced by achieving data saturation?	☒ Yes	☐ No
	Does the researcher provide illustrations from the data? • If yes, do the provided illustrations support conclusions?	☐ Yes ☐ Yes	☒ No ☐ No
	Is there congruency between the findings and the data?	☒ Yes	☐ No
	Is there congruency between the research methodology and: • The research question(s) • The methods to collect data • The interpretation of results	☒ Yes ☒ Yes ☒ Yes	☐ No ☐ No ☐ No
	Are discussion and conclusions congruent with the purpose and objectives, and supported by literature?	☒ Yes	☐ No
	Are conclusions drawn based on the data collected (e.g., the product of the observations or interviews)?	☒ Yes	☐ No

Section II: QuaLitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; it describes the specific techniques used to enhance the quality of the inquiry. Evidence of at least half or all the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any, of the features listed for high/good quality.
	Record findings that help answer the EBP question on page **1**

B	Is this a summary of multiple sources of qualitative research evidence with a comprehensive search strategy and rigorous appraisal method (Meta-synthesis)?	☐Yes ☐ This is Level III evidence ☐No ☐Use the Nonresearch Evidence Appraisal tool (Appendix F)

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the search strategy and criteria for selecting primary studies clearly defined?	☐ Yes	☐ No
	Was there a description of a systematic and thorough process for how data were analyzed?	☐ Yes	☐ No
	● Were methods described for comparing findings from each study?	☐ Yes	☐ No
	● Were methods described for interpreting data?	☐ Yes	☐ No
	● Was sufficient data presented to support the interpretations?	☐ Yes	☐ No
	Did synthesis reflect: ● New insights? ● Discovery of essential features of the phenomena? ● A fuller understanding of the phenomena?	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Are findings clearly linked to and match the data?	☐ Yes	☐ No
	Are findings connected to the purpose, data collection, and analysis?	☐ Yes	☐ No
	Are discussion and conclusions connected to the purpose, objectives, and (if possible) supported by literature?	☐ Yes	☐ No
	Did authors describe clearly how they arrived at the interpretation of the findings?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		

A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report:

- *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated.
- *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence.
- *Verification*: The process of checking, confirming, and ensuring methodologic coherence.
- *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations.
- *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated.
- *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature.

C Low quality: Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any of the features listed for high/good quality**.**

Record findings that help answer the EBP question on page **1**

Section III: Mixed Methods Appraisal

You will need to appraise both parts of the study independently before appraising the study as a whole. Evaluate the quaNtitative part of the study using Section I. Evaluate the qualitative part of the studying using Section II, then return here to complete appraisal.

Level

	Level	Quality
QuaNtitative Portion	III	Good
QuaLitative Portion	III	Good

The level of mixed methods evidence is based on the sequence of data collection. Quantitative data collection followed by quaLitative (explanatory design) is based on the level of the quaNtitative portion. All other designs (exploratory, convergent, or multiphasic) are Level III evidence.

Explanatory sequential designs collected quantitative data first, followed by qualitative.
Exploratory sequential designs collect qualitative data first, followed by quantitative.
Convergent parallel designs collect quantitative and qualitative data at the same time.
Multiphasic designs collect qualitative and quantitative data over more than one phase.

Quality

After determining the level of evidence, determine the quality of evidence using the considerations below:

Was the mixed-methods research design relevant to address both quaNtitative and quaLitative research questions (or objectives)?	☒ Yes	☐ No
Was the research design relevant to address the quaNtitative and the quaLitative aspects of the mixed-methods question (or objective)?	☒ Yes	☐ No

Circle the appropriate quality rating below:

A High quality: Contains high-quality quaNtitative and quaLitative study components; highly relevant study design; relevant integration of data or results; and careful consideration of the limitations of the chosen approach.

B Good quality: Contains good-quality quaNtitative and quaLitative study components; relevant study design; moderately relevant integration of data or results; and some discussion of limitations of integration.

C Low quality: Contains low quality quaNtitative and quaLitative study components; study design not relevant to research questions or objectives; poorly integrated data or results; and no consideration of limits of integration.

Record findings that help answer the EBP question on page **1**

Johns Hopkins Evidence-Based Practice Model for Nursing and Healthcare Professionals
Research Evidence Appraisal Tool

Does this evidence answer the EBP question?
☒ Yes → Continue appraisal ☐ No → STOP, do not continue evidence appraisal

Article Summary Information

Article Title:
Bridging the Gap: Implementation of Skills Review Days for New Graduate Nurses.

Author(s): Brown, Tisera, & Pagel	Number: 2169-981X (Electronic) 21699798 (Linking)
Population: New Graduate Nurses during covid Size: *n* = 88 Setting: Large urban academic acute care center	Publication date: March 14, 2022

Complete after appraisal

Evidence level: III
Quality rating:

Study findings that help answer the EBP question:

- Talks about the challenges of onboarding new graduate nurses during Covid-19.
- Study over NGNs attending a skills session and rating their confidence in their skills after performing the teaching sessions
- Shows that having skill sessions for NGNs can help bridge the academic practice gap

Article Appraisal Workflow

Is this study:

☐ **QuaNtitative**(collection, analysis, and reporting of numerical data)

Numerical data (how many, how much, or how often) are used to formulate facts, uncover patterns, and generalize to a larger population; provides observed effects of a program, problem, or condition. Common methods are polls, surveys, observations, and reviews of records or documents. Data are analyzed using statistical tests.

☒ **Go to Section I for QuaNtitative leveling**

☐ **QuaLitative**(collection, analysis, and reporting of narrative data)

Rich narrative data to gain a deep understanding of phenomena, meanings, perceptions, concepts, and experiences from those experiencing it. Sample sizes are relatively small and determined by the point of redundancy when no new information is gleaned, and key themes are reiterated (data saturation). Data are analyzed using thematic analysis. Often a starting point for studies when little research exists; may use results to design empirical studies. Common methods are focus groups, individual interviews (unstructured or semi-structured), and participation/observations.

☒ **Go to Section II for QuaLitative leveling**

☐ **Mixed methods** (results reported both numerically and narratively)

A study design (a single study or series of studies) that uses rigorous procedures in collecting and analyzing both quaNtitative and quaLitative data. *Note*: QuaNtitative survey designs with open-ended questions do not meet criteria for mixed methods research because those questions are not approached using strict quaLitative methods. Mixed methods studies provide a better understanding of research problems than using either a quaNtitative or quaLitative approach alone.

☒ **Go to Section III for Mixed Methods leveling**

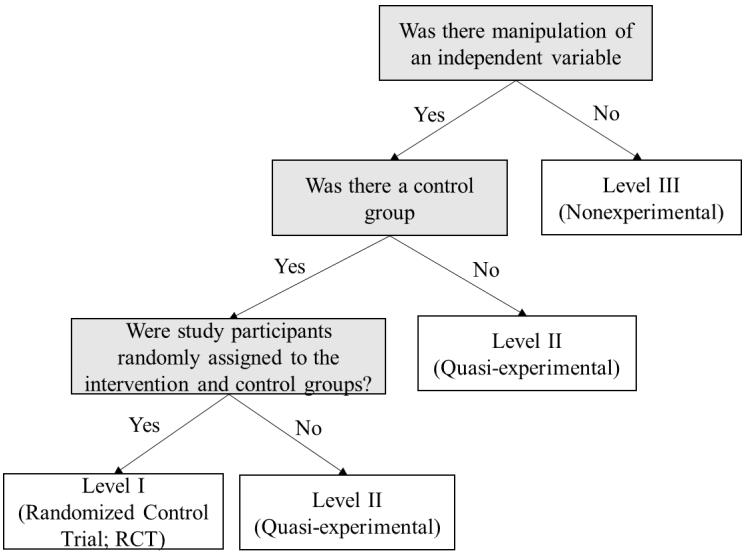
Section I: QuaNtitative Appraisal

A Is this a report of a single research study?

☐ Yes →Continue to decision tree

☐ No →Go to Section I:B

Level



Level I studies include randomized control trials (RCTs) or experimental studies

Level II studies have some degree of investigator control and some manipulation of an independent variable but lack random assignment to groups and may not have a control group

Quality	After determining the level of evidence, determine the quality of evidence using the considerations below:			
	Does the researcher identify what is known and not known about the problem?	☒ Yes	☐ No	
	Does the researcher identify how the study will address any gaps in knowledge?	☒ Yes	☐ No	
	Was the purpose of the study clearly presented?	☒ Yes	☐ No	
	Was the literature review current (most sources within the past five years or a seminal study)?	☒ Yes	☐ No	
	Was sample size sufficient based on study design and rationale?	☒ Yes	☐ No	
	If there is a control group: ● Were the characteristics and/or demographics similar in both the control and intervention groups? ● If multiple settings were used, were the settings similar? ● Were all groups equally treated except for the intervention group(s)?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No	☒ N/A ☒ N/A ☒ N/A
	Are data collection methods described clearly?	☒ Yes	☐ No	
	Were the instruments reliable (Cronbach's α [alpha] ≥ 0.70)?	☐ Yes	☐ No	☒ N/A
	Was instrument validity discussed?	☒ Yes	☐ No	☐ N/A
	If surveys or questionnaires were used, was the response rate ≥ 25%?	☐ Yes	☐ No	☒ N/A
	Were the results presented clearly?	☒ Yes	☐ No	
	If tables were presented, was the narrative consistent with the table content?	☒ Yes	☐ No	☐ N/A
	Were study limitations identified and addressed?	☒ Yes	☐ No	
	Were conclusions based on results?	☒ Yes	☐ No	

Section I: QuaNtitative Appraisal (continued)

	Circle the appropriate quality rating below:
Quality	**A High quality:** Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence. **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence. **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.

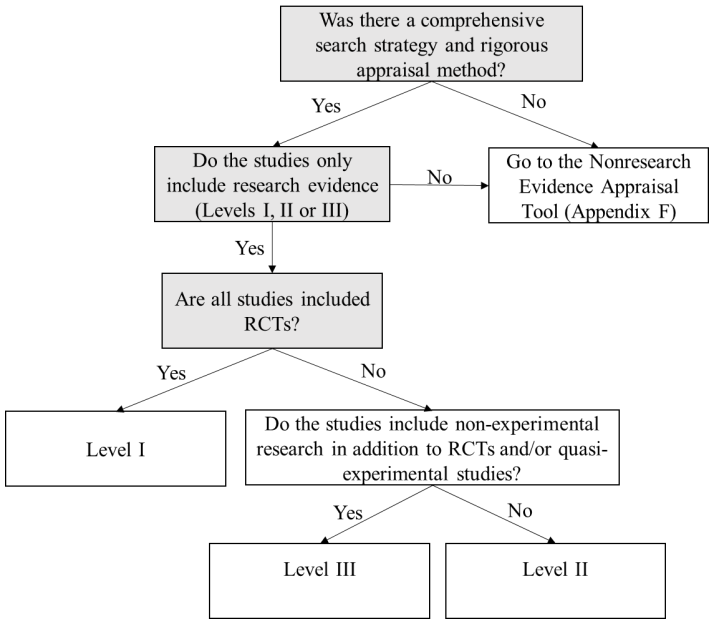
Record findings that help answer the EBP question on page **1**

Section I: QuaNtitative Appraisal (continued)

B Is this a summary of multiple sources of research evidence?

☐Yes →Continue to decision tree
☐No Use the Nonresearch Evidence Appraisal tool (Appendix F)

Level



Quality

After determining level of evidence, determine the quality of evidence using the considerations below:

Were the variables of interest clearly identified?	☐ Yes	☐ No
Was the search comprehensive and reproducible? ● Key terms stated ● Multiple databases searched and identified ● Inclusion and exclusion criteria stated	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
Was there a flow diagram that included the number of studies eliminated at each level of review?	☐ Yes	☐ No
Were details of included studies presented (design, sample, methods, results, outcomes, strengths, and limitations)?	☐ Yes	☐ No
Were methods for appraising the strength of evidence (level and quality) described?	☐ Yes	☐ No
Were conclusions based on results? ● Results were interpreted ● Conclusions flowed logically from the research question, results, and interpretation	 ☐ Yes ☐ Yes	 ☐ No ☐ No
Did the systematic review include a section addressing limitations and how they were addressed?	☐ Yes	☐ No

Section I: QuaNtitative Appraisal (continued)

	Circle the appropriate quality rating below:
Quality	**A High quality:** Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; recommendations consistent with the study's findings and include thorough reference to scientific evidence **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section II: QuaLitative Appraisal

A Is this a report of a single research study? ☒ Yes ☐ This is Level III evidence ☐ No ☐ Go to Section II: B

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Was there a clearly identifiable and articulated: ● Purpose? ● Research question? ● Justification for design and/or theoretical framework used?	☒ Yes ☒ Yes ☒ Yes	☐ No ☐ No ☐ No
	Do participants have knowledge of the subject the researchers are trying to explore?	☒ Yes	☐ No
	Were characteristics of study participants described?	☒ Yes	☐ No
	Was a verification process used in every step of data analysis (e.g., triangulation, response validation, independent double check, member checking)? (Credibility)	☒ Yes	☐ No
	Does the researcher provide sufficient documentation of their thinking, decisions, and methods related to the study allowing the reader to follow their decision-making (e.g., how themes and categories were formulated)? (Confirmability)	☒ Yes	☐ No
	Does the researcher provide an accurate and rich description of findings by providing the information necessary to evaluate the analysis of data? (Fittingness)	☒ Yes	☐ No
	Does the researcher acknowledge and/or address their own role and potential influence during data collection?	☐ Yes	☒ No
	Was sampling adequate, as evidenced by achieving data saturation?	☒ Yes	☐ No
	Does the researcher provide illustrations from the data? ● If yes, do the provided illustrations support conclusions?	☒ Yes ☒ Yes	☐ No ☐ No
	Is there congruency between the findings and the data?	☒ Yes	☐ No
	Is there congruency between the research methodology and: ● The research question(s) ● The methods to collect data ● The interpretation of results	☒ Yes ☒ Yes ☒ Yes	☐ No ☐ No ☐ No
	Are discussion and conclusions congruent with the purpose and objectives, and supported by literature?	☒ Yes	☐ No
	Are conclusions drawn based on the data collected (e.g., the product of the observations or interviews)?	☒ Yes	☐ No

Section II: QuaLitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; it describes the specific techniques used to enhance the quality of the inquiry. Evidence of at least half or all the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any, of the features listed for high/good quality.
	Record findings that help answer the EBP question on page **1**

B	Is this a summary of multiple sources of qualitative research evidence with a comprehensive search strategy and rigorous appraisal method (Meta-synthesis)?	☐Yes ☐ This is Level III evidence ☐No ☐Use the Nonresearch Evidence Appraisal tool (Appendix F)

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the search strategy and criteria for selecting primary studies clearly defined?	☐ Yes	☐ No
	Was there a description of a systematic and thorough process for how data were analyzed?	☐ Yes	☐ No
	● Were methods described for comparing findings from each study?	☐ Yes	☐ No
	● Were methods described for interpreting data?	☐ Yes	☐ No
	● Was sufficient data presented to support the interpretations?	☐ Yes	☐ No
	Did synthesis reflect: ● New insights? ● Discovery of essential features of the phenomena? ● A fuller understanding of the phenomena?	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Are findings clearly linked to and match the data?	☐ Yes	☐ No
	Are findings connected to the purpose, data collection, and analysis?	☐ Yes	☐ No
	Are discussion and conclusions connected to the purpose, objectives, and (if possible) supported by literature?	☐ Yes	☐ No
	Did authors describe clearly how they arrived at the interpretation of the findings?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		

A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report:

- *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated.
- *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence.
- *Verification*: The process of checking, confirming, and ensuring methodologic coherence.
- *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations.
- *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated.
- *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature.

C Low quality: Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any of the features listed for high/good quality**.**

Record findings that help answer the EBP question on page **1**

Section III: Mixed Methods Appraisal

You will need to appraise both parts of the study independently before appraising the study as a whole. Evaluate the quaNtitative part of the study using Section I. Evaluate the qualitative part of the studying using Section II, then return here to complete appraisal.

Level

	Level	Quality
QuaNtitative Portion	III	Good
QuaLitative Portion	III	Good

The level of mixed methods evidence is based on the sequence of data collection. Quantitative data collection followed by quaLitative (explanatory design) is based on the level of the quaNtitative portion. All other designs (exploratory, convergent, or multiphasic) are Level III evidence.

Explanatory sequential designs collected quantitative data first, followed by qualitative.
Exploratory sequential designs collect qualitative data first, followed by quantitative.
Convergent parallel designs collect quantitative and qualitative data at the same time.
Multiphasic designs collect qualitative and quantitative data over more than one phase.

Quality

After determining the level of evidence, determine the quality of evidence using the considerations below:

Was the mixed-methods research design relevant to address both quaNtitative and quaLitative research questions (or objectives)?	☐ Yes	☐ No
Was the research design relevant to address the quaNtitative and the quaLitative aspects of the mixed-methods question (or objective)?	☐ Yes	☐ No

Circle the appropriate quality rating below:

A High quality: Contains high-quality quaNtitative and quaLitative study components; highly relevant study design; relevant integration of data or results; and careful consideration of the limitations of the chosen approach.

B Good quality: Contains good-quality quaNtitative and quaLitative study components; relevant study design; moderately relevant integration of data or results; and some discussion of limitations of integration.

C Low quality: Contains low quality quaNtitative and quaLitative study components; study design not relevant to research questions or objectives; poorly integrated data or results; and no consideration of limits of integration.

Record findings that help answer the EBP question on page **1**

Johns Hopkins Evidence-Based Practice Model for Nursing and Healthcare Professionals
Research Evidence Appraisal Tool

Does this evidence answer the EBP question?

☒ Yes → Continue appraisal ☐ No → STOP, do not continue evidence appraisal

Article Summary Information

Article Title:
Transition to Practice: The use of Virtual Clinical Replacement During the COVID-19 Pandmeic and Its impact on New Graduate Nurse Readiness.

Author(s): (Ulmen, Witte, Speckhard, & Fenske)	Number: 1536-5026 15365026 (Linking)
Population: BSN RNs from the United States, Australia, New Zealand, Canada, and the United Kingdom who had at least one of their semester interrupted by COVID-19 Size: *n* = 124 Setting: various hospitals	Publication date: July 27, 2022

Complete after appraisal

Evidence level: III
Quality rating: Good Quality

Study findings that help answer the EBP question:

- New Graduate Nurses Preparedness for practice after virtual clinical replacement experiences
- Conclusions: the use of the virtual clinical replacement experiences allowed for the NGN to have more confidence thus they were able to conclude these replacement experiences were beneficial
-

Article Appraisal Workflow

Is this study:

☐ **QuaNtitative**(collection, analysis, and reporting of numerical data)

Numerical data (how many, how much, or how often) are used to formulate facts, uncover patterns, and generalize to a larger population; provides observed effects of a program, problem, or condition. Common methods are polls, surveys, observations, and reviews of records or documents. Data are analyzed using statistical tests.

☒ **Go to Section I for QuaNtitative leveling**

☐ **QuaLitative**(collection, analysis, and reporting of narrative data)

Rich narrative data to gain a deep understanding of phenomena, meanings, perceptions, concepts, and experiences from those experiencing it. Sample sizes are relatively small and determined by the point of redundancy when no new information is gleaned, and key themes are reiterated (data saturation). Data are analyzed using thematic analysis. Often a starting point for studies when little research exists; may use results to design empirical studies. Common methods are focus groups, individual interviews (unstructured or semi-structured), and participation/observations.

☒ **Go to Section II for QuaLitative leveling**

☐ **Mixed methods** (results reported both numerically and narratively)

A study design (a single study or series of studies) that uses rigorous procedures in collecting and analyzing both quaNtitative and quaLitative data. *Note*: QuaNtitative survey designs with open-ended questions do not meet criteria for mixed methods research because those questions are not approached using strict quaLitative methods. Mixed methods studies provide a better understanding of research problems than using either a quaNtitative or quaLitative approach alone.

☒ **Go to Section III for Mixed Methods leveling**

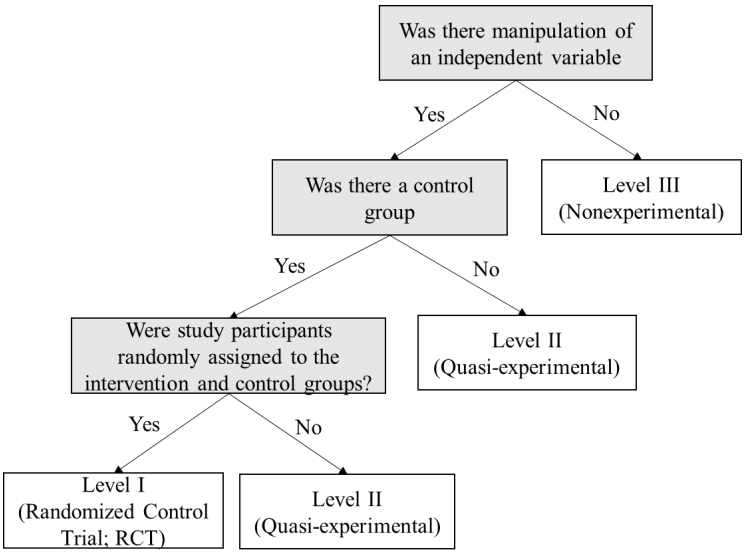
Section I: QuaNtitative Appraisal

☐ No ☐ Go to Section I: B

A Is this a report of a single research study?

☐ Yes ☐ Continue to decision tree

Level



Level I studies include randomized control trials (RCTs) or experimental studies

Level II studies have some degree of investigator control and some manipulation of an independent variable but lack random assignment to groups and may not have a control group

Qua

After determining the level of evidence, determine the quality of evidence using the considerations below:

l i t y	Does the researcher identify what is known and not known about the problem?	■ Yes	☐ No	
	Does the researcher identify how the study will address any gaps in knowledge?	■ Yes	☐ No	
	Was the purpose of the study clearly presented?	■ Yes	☐ No	
	Was the literature review current (most sources within the past five years or a seminal study)?	■ Yes	☐ No	
	Was sample size sufficient based on study design and rationale?	■ Yes	☐ No	
	If there is a control group: ● Were the characteristics and/or demographics similar in both the control and intervention groups? ● If multiple settings were used, were the settings similar? ● Were all groups equally treated except for the intervention group(s)?	■ Yes ■ Yes ■ Yes	☐ No ☐ No ☐ No	☐ N/A ☐ N/A ☐N/A
	Are data collection methods described clearly?	■ Yes	☐ No	
	Were the instruments reliable (Cronbach's α [alpha] ≥ 0.70)?	☐ Yes	☐ No	■ N/A
	Was instrument validity discussed?	■ Yes	☐ No	☐ N/A
	If surveys or questionnaires were used, was the response rate ≥ 25%?	☐ Yes	☐ No	■ N/A
	Were the results presented clearly?	■ Yes	☐ No	
	If tables were presented, was the narrative consistent with the table content?	■ Yes	☐ No	☐ N/A
	Were study limitations identified and addressed?	■ Yes	☐ No	
	Were conclusions based on results?	■ Yes	☐ No	

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence. **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence. **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.

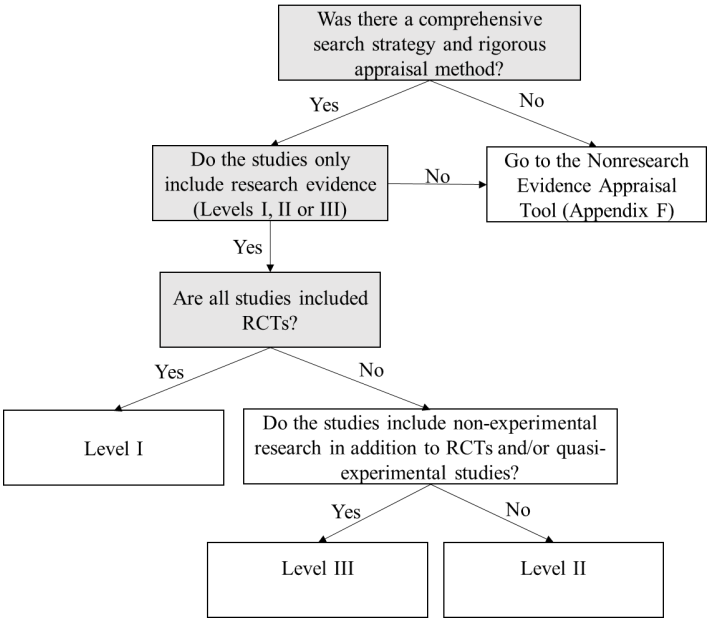
Record findings that help answer the EBP question on page **1**

Section I: QuaNtitative Appraisal (continued)

B Is this a summary of multiple sources of research evidence?

☐ Yes ☐ Continue to decision tree

☐ No ☐ Use the No nre

	search Evidence Appraisal tool (Appendix F)
Level	

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the variables of interest clearly identified?	☐ Yes	☐ No
	Was the search comprehensive and reproducible? ● Key terms stated ● Multiple databases searched and identified ● Inclusion and exclusion criteria stated	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Was there a flow diagram that included the number of studies eliminated at each level of review?	☐ Yes	☐ No
	Were details of included studies presented (design, sample, methods, results, outcomes, strengths, and limitations)?	☐ Yes	☐ No

	Were methods for appraising the strength of evidence (level and quality) described?	☐ Yes	☐ No
	Were conclusions based on results? ●Results were interpreted ●Conclusions flowed logically from the research question, results, and interpretation	 ☐ Yes ☐ Yes	 ☐ No ☐ No
	Did the systematic review include a section addressing limitations and how they were addressed?	☐ Yes	☐ No

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below: **A High quality:** Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; recommendations consistent with the study's findings and include thorough reference to scientific evidence **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section II: QuaLitative Appraisal

A Is this a report of a single research study? ☒ Yes ☐ This is Level III evidence ☐ No ☐ Go to Section II: B

Quality

After determining level of evidence, determine the quality of evidence using the considerations below:

Was there a clearly identifiable and articulated: • Purpose? • Research question? • Justification for design and/or theoretical framework used?	☒ Yes ☒ Yes ☒ Yes	☐ No ☐ No ☐ No
Do participants have knowledge of the subject the researchers are trying to explore?	☒ Yes	☐ No
Were characteristics of study participants described?	☒ Yes	☐ No
Was a verification process used in every step of data analysis (e.g., triangulation, response validation, independent double check, member checking)? (Credibility)	☒ Yes	☐ No
Does the researcher provide sufficient documentation of their thinking, decisions, and methods related to the study allowing the reader to follow their decision-making (e.g., how themes and categories were formulated)? (Confirmability)	☒ Yes	☐ No
Does the researcher provide an accurate and rich description of findings by providing the information necessary to evaluate the analysis of data? (Fittingness)	☒ Yes	☐ No
Does the researcher acknowledge and/or address their own role and potential influence during data collection?	☒ Yes	☐ No
Was sampling adequate, as evidenced by achieving data saturation?	☒ Yes	☐ No
Does the researcher provide illustrations from the data? • If yes, do the provided illustrations support conclusions?	☐ Yes ☐ Yes	☒ No ☐ No
Is there congruency between the findings and the data?	☒ Yes	☐ No
Is there congruency between the research methodology and: • The research question(s) • The methods to collect data • The interpretation of results	☒ Yes ☒ Yes ☒ Yes	☐ No ☐ No ☐ No
Are discussion and conclusions congruent with the purpose and objectives, and supported by literature?	☒ Yes	☐ No
Are conclusions drawn based on the data collected (e.g., the product of the observations or interviews)?	☒ Yes	☐ No

Section II: QuaLitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; it describes the specific techniques used to enhance the quality of the inquiry. Evidence of at least half or all the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any, of the features listed for high/good quality.
	Record findings that help answer the EBP question on page **1**

B	Is this a summary of multiple sources of qualitative research evidence with a comprehensive search strategy and rigorous appraisal method (Meta-synthesis)?	☐Yes ☐ This is Level III evidence ☐ No ☐Use the Nonresearch Evidence Appraisal tool (Appendix F)	
Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the search strategy and criteria for selecting primary studies clearly defined?	☐ Yes	☐ No
	Was there a description of a systematic and thorough process for how data were analyzed?	☐ Yes	☐ No
	● Were methods described for comparing findings from each study?	☐ Yes	☐ No
	● Were methods described for interpreting data?	☐ Yes	☐ No
	● Was sufficient data presented to support the interpretations?	☐ Yes	☐ No
	Did synthesis reflect: ● New insights? ● Discovery of essential features of the phenomena? ● A fuller understanding of the phenomena?	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Are findings clearly linked to and match the data?	☐ Yes	☐ No
	Are findings connected to the purpose, data collection, and analysis?	☐ Yes	☐ No
	Are discussion and conclusions connected to the purpose, objectives, and (if possible) supported by literature?	☐ Yes	☐ No
	Did authors describe clearly how they arrived at the interpretation of the findings?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		

A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report:

- *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated.
- *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence.
- *Verification*: The process of checking, confirming, and ensuring methodologic coherence.
- *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations.
- *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated.
- *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature.

C Low quality: Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any of the features listed for high/good quality**.**

Record findings that help answer the EBP question on page **1**

Section III: Mixed Methods Appraisal

You will need to appraise both parts of the study independently before appraising the study as a whole. Evaluate the quaNtitative part of the study using Section I. Evaluate the qualitative part of the studying using Section II, then return here to complete appraisal.

Level

	Level	Quality
QuaNtitative Portion	III	Good
QuaLitative Portion	III	Good

The level of mixed methods evidence is based on the sequence of data collection. Quantitative data collection followed by quaLitative (explanatory design) is based on the level of the quaNtitative portion. All other designs (exploratory, convergent, or multiphasic) are Level III evidence.

Explanatory sequential designs collected quantitative data first, followed by qualitative.
Exploratory sequential designs collect qualitative data first, followed by quantitative.
Convergent parallel designs collect quantitative and qualitative data at the same time.
Multiphasic designs collect qualitative and quantitative data over more than one phase.

Quality

After determining the level of evidence, determine the quality of evidence using the considerations below:

Was the mixed-methods research design relevant to address both quaNtitative and quaLitative research questions (or objectives)?	☒ Yes	☐ No
Was the research design relevant to address the quaNtitative and the quaLitative aspects of the mixed-methods question (or objective)?	☒ Yes	☐ No

Circle the appropriate quality rating below:

A High quality: Contains high-quality quaNtitative and quaLitative study components; highly relevant study design; relevant integration of data or results; and careful consideration of the limitations of the chosen approach.

B Good quality: Contains good-quality quaNtitative and quaLitative study components; relevant study design; moderately relevant integration of data or results; and some discussion of limitations of integration.

C Low quality: Contains low quality quaNtitative and quaLitative study components; study design not relevant to research questions or objectives; poorly integrated data or results; and no consideration of limits of integration.

Record findings that help answer the EBP question on page **1**

Johns Hopkins Evidence-Based Practice Model for Nursing and Healthcare Professionals
Research Evidence Appraisal Tool

Does this evidence answer the EBP question?

☒ Yes → Continue appraisal ☐ No → STOP, do not continue evidence appraisal

Article Summary Information

Article Title:
The lived experiences of nurses transitioning to professional practice during the COVID-19 pandemic

Author(s): (Aukerman et al.)	Number: 0029-6473
Population: Frontline nurses that graduated in 2020 Size: *n* = 12 Setting:	Publication date: September 2022

Complete after appraisal

Evidence level: III
Quality rating: High

Study findings that help answer the EBP question:

- shares the lived experiences of those NGN's that transitioned to practice during the COVID-19 pandemic
- helps to gain understanding of what needs to be done to improve in the future
- suggestions to prepare future graduates for similar situations
- six themes emerged from the interviews: fear, emotional conflict, self-doubt. alone, communication barriers, and finding the positive

Article Appraisal Workflow

Is this study:

☐ **QuaNtitative** (collection, analysis, and reporting of numerical data)

Numerical data (how many, how much, or how often) are used to formulate facts, uncover patterns, and generalize to a larger population; provides observed effects of a program, problem, or condition. Common methods are polls, surveys, observations, and reviews of records or documents. Data are analyzed using statistical tests.

☒ **Go to Section I for QuaNtitative leveling**

☐ **QuaLitative** (collection, analysis, and reporting of narrative data)

Rich narrative data to gain a deep understanding of phenomena, meanings, perceptions, concepts, and experiences from those experiencing it. Sample sizes are relatively small and determined by the point of redundancy when no new information is gleaned, and key themes are reiterated (data saturation). Data are analyzed using thematic analysis. Often a starting point for studies when little research exists; may use results to design empirical studies. Common methods are focus groups, individual interviews (unstructured or semi-structured), and participation/observations.

☒ **Go to Section II for QuaLitative leveling**

☐ **Mixed methods** (results reported both numerically and narratively)

A study design (a single study or series of studies) that uses rigorous procedures in collecting and analyzing both quaNtitative and quaLitative data. *Note*: QuaNtitative survey designs with open-ended questions do not meet criteria for mixed methods research because those questions are not approached using strict quaLitative methods. Mixed methods studies provide a better understanding of research problems than using either a quaNtitative or quaLitative approach alone.

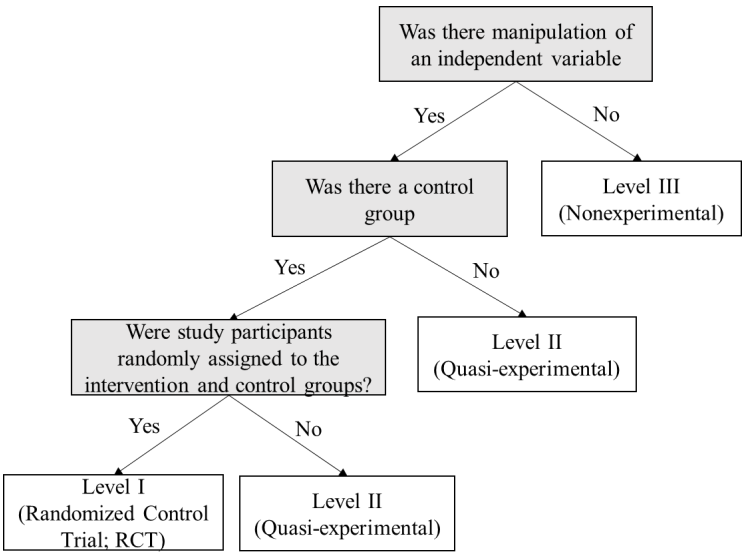
☒ **Go to Section III for Mixed Methods leveling**

Section I: QuaNtitative Appraisal

A Is this a report of a single research study?

☐ Yes → Continue to decision tree ☐ No → Go to Section I: B

Level



Level I studies include randomized control trials (RCTs) or experimental studies

Level II studies have some degree of investigator control and some manipulation of an independent variable but lack random assignment to groups and may not have a control group

Quality

After determining the level of evidence, determine the quality of evidence using the considerations below:

Does the researcher identify what is known and not known about the problem?	☐ Yes	☐ No	
Does the researcher identify how the study will address any gaps in knowledge?	☐ Yes	☐ No	
Was the purpose of the study clearly presented?	☐ Yes	☐ No	
Was the literature review current (most sources within the past five years or a seminal study)?	☐ Yes	☐ No	
Was sample size sufficient based on study design and rationale?	☐ Yes	☐ No	
If there is a control group: ● Were the characteristics and/or demographics similar in both the control and intervention groups? ● If multiple settings were used, were the settings similar? ● Were all groups equally treated except for the intervention group(s)?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No	☐ N/A ☐ N/A ☐N/A
Are data collection methods described clearly?	☐ Yes	☐ No	
Were the instruments reliable (Cronbach's α [alpha] ≥ 0.70)?	☐ Yes	☐ No	☐ N/A
Was instrument validity discussed?	☐ Yes	☐ No	☐ N/A
If surveys or questionnaires were used, was the response rate ≥ 25%?	☐ Yes	☐ No	☐ N/A
Were the results presented clearly?	☐ Yes	☐ No	
If tables were presented, was the narrative consistent with the table content?	☐ Yes	☐ No	☐ N/A
Were study limitations identified and addressed?	☐ Yes	☐ No	
Were conclusions based on results?	☐ Yes	☐ No	

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:

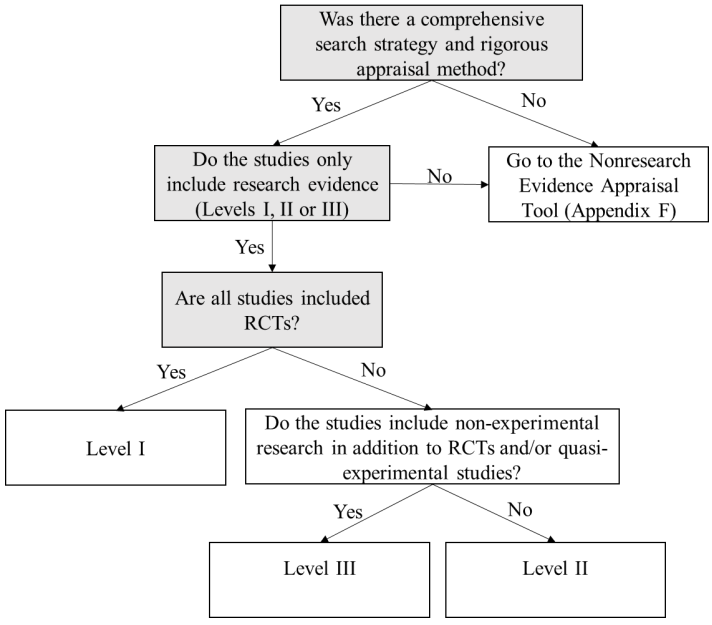
	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence. **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence. **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section I: QuaNtitative Appraisal (continued)

B Is this a summary of multiple sources of research evidence?

☐ Yes → Continue to decision tree ☐ No ☐ Use the Nonresearch Evidence Appraisal tool (Appendix F)

Level



Qual

After determining level of evidence, determine the quality of evidence using the considerations below:

Were the variables of interest clearly identified?	☐ Yes	☐ No

i t y	Was the search comprehensive and reproducible? ● Key terms stated ● Multiple databases searched and identified ● Inclusion and exclusion criteria stated	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Was there a flow diagram that included the number of studies eliminated at each level of review?	☐ Yes	☐ No
	Were details of included studies presented (design, sample, methods, results, outcomes, strengths, and limitations)?	☐ Yes	☐ No
	Were methods for appraising the strength of evidence (level and quality) described?	☐ Yes	☐ No
	Were conclusions based on results? ●Results were interpreted ●Conclusions flowed logically from the research question, results, and interpretation	 ☐ Yes ☐ Yes	 ☐ No ☐ No
	Did the systematic review include a section addressing limitations and how they were addressed?	☐ Yes	☐ No

Section I: QuaNtitative Appraisal (continued)

Q u a l i t y	Circle the appropriate quality rating below: **A High quality:** Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; recommendations consistent with the study's findings and include thorough reference to scientific evidence **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
	Record findings that help answer the EBP question on page **1**

Section II: QuaLitative Appraisal

A Is this a report of a single research study? ☒ Yes ☐ This is Level III evidence ☐ No ☐ Go to Section II: B

Quality

After determining level of evidence, determine the quality of evidence using the considerations below:		
Was there a clearly identifiable and articulated: • Purpose? • Research question? • Justification for design and/or theoretical framework used?	☒ Yes ☒ Yes ☒ Yes	☐ No ☐ No ☐ No
Do participants have knowledge of the subject the researchers are trying to explore?	☒ Yes	☐ No
Were characteristics of study participants described?	☒ Yes	☐ No
Was a verification process used in every step of data analysis (e.g., triangulation, response validation, independent double check, member checking)? (Credibility)	☒ Yes	☐ No
Does the researcher provide sufficient documentation of their thinking, decisions, and methods related to the study allowing the reader to follow their decision-making (e.g., how themes and categories were formulated)? (Confirmability)	☒ Yes	☐ No
Does the researcher provide an accurate and rich description of findings by providing the information necessary to evaluate the analysis of data? (Fittingness)	☒ Yes	☐ No
Does the researcher acknowledge and/or address their own role and potential influence during data collection?	☒ Yes	☐ No
Was sampling adequate, as evidenced by achieving data saturation?	☒ Yes	☐ No
Does the researcher provide illustrations from the data? • If yes, do the provided illustrations support conclusions?	☒ Yes ☒ Yes	☐ No ☐ No
Is there congruency between the findings and the data?	☒ Yes	☐ No
Is there congruency between the research methodology and: • The research question(s) • The methods to collect data • The interpretation of results	☒ Yes ☒ Yes ☒ Yes	☐ No ☐ No ☐ No
Are discussion and conclusions congruent with the purpose and objectives, and supported by literature?	☒ Yes	☐ No
Are conclusions drawn based on the data collected (e.g., the product of the observations or interviews)?	☒ Yes	☐ No

Section II: QuaLitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; it describes the specific techniques used to enhance the quality of the inquiry. Evidence of at least half or all the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any, of the features listed for high/good quality.
	Record findings that help answer the EBP question on page **1**

B	Is this a summary of multiple sources of qualitative research evidence with a comprehensive search strategy and rigorous appraisal method (Meta-synthesis)?	☐Yes ☐ This is Level III evidence ☐ No ☐Use the Nonresearch Evidence Appraisal tool (Appendix F)	
Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the search strategy and criteria for selecting primary studies clearly defined?	☐ Yes	☐ No
	Was there a description of a systematic and thorough process for how data were analyzed?	☐ Yes	☐ No
	● Were methods described for comparing findings from each study?	☐ Yes	☐ No
	● Were methods described for interpreting data?	☐ Yes	☐ No
	● Was sufficient data presented to support the interpretations?	☐ Yes	☐ No
	Did synthesis reflect: ● New insights? ● Discovery of essential features of the phenomena? ● A fuller understanding of the phenomena?	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Are findings clearly linked to and match the data?	☐ Yes	☐ No
	Are findings connected to the purpose, data collection, and analysis?	☐ Yes	☐ No
	Are discussion and conclusions connected to the purpose, objectives, and (if possible) supported by literature?	☐ Yes	☐ No
	Did authors describe clearly how they arrived at the interpretation of the findings?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		

A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report:

- *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated.
- *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence.
- *Verification*: The process of checking, confirming, and ensuring methodologic coherence.
- *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations.
- *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated.
- *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature.

C Low quality: Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any of the features listed for high/good quality**.**

Record findings that help answer the EBP question on page **1**

Section III: Mixed Methods Appraisal

You will need to appraise both parts of the study independently before appraising the study as a whole. Evaluate the quaNtitative part of the study using Section I. Evaluate the qualitative part of the studying using Section II, then return here to complete appraisal.

Level		Level	Quality
	QuaNtitative Portion		
	QuaLitative Portion		
	The level of mixed methods evidence is based on the sequence of data collection. Quantitative data collection followed by quaLitative (explanatory design) is based on the level of the quaNtitative portion. All other designs (exploratory, convergent, or multiphasic) are Level III evidence. Explanatory sequential designs collected quantitative data first, followed by qualitative. Exploratory sequential designs collect qualitative data first, followed by quantitative. Convergent parallel designs collect quantitative and qualitative data at the same time. Multiphasic designs collect qualitative and quantitative data over more than one phase.		
Quality	After determining the level of evidence, determine the quality of evidence using the considerations below:		
	Was the mixed-methods research design relevant to address both quaNtitative and quaLitative research questions (or objectives)?	☐ Yes	☐ No
	Was the research design relevant to address the quaNtitative and the quaLitative aspects of the mixed-methods question (or objective)?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		
	A High quality: Contains high-quality quaNtitative and quaLitative study components; highly relevant study design; relevant integration of data or results; and careful consideration of the limitations of the chosen approach. **B Good quality:** Contains good-quality quaNtitative and quaLitative study components; relevant study design; moderately relevant integration of data or results; and some discussion of limitations of integration. **C Low quality:** Contains low quality quaNtitative and quaLitative study components; study design not relevant to research questions or objectives; poorly integrated data or results; and no consideration of limits of integration.		

Record findings that help answer the EBP question on page **1**

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Research Evidence Appraisal Tool

Does this evidence answer the EBP question?

☒ Yes → Continue appraisal ☐ No → STOP, do not continue evidence appraisal

Article Summary Information

Article Title:
A Longitudinal View of Perceptions of Entering Nursing Practice During the COVID-19 Pandemic

Author(s): (Bultas, & L'Ecuyer)	Number: 1938-2472 (Electronic) 00220124 (linking)
Population: new BSN graduates Size: *n* = 56 Setting: June 2020 to May 2021	Publication date: June 2022

Complete after appraisal

Evidence level: III
Quality Rating: High

Study findings that help answer the EBP question:

- Academic practice gap exacerbated by challenges of COVID-19 such as canceled clinicals, transition to virtual education, and shorter onboarding periods. Stressful experience for NGNs.
- Academic and Health care settings need to provide support that improves the well-being, resilience, and adaptability of NGNs. Additional touchpoints with NGNs beyond the orientation period.

Article Appraisal Workflow

Is this study:

☐ **QuaNtitative** (collection, analysis, and reporting of numerical data)

Numerical data (how many, how much, or how often) are used to formulate facts, uncover patterns, and generalize to a larger population; provides observed effects of a program, problem, or condition. Common methods are polls, surveys, observations, and reviews of records or documents. Data are analyzed using statistical tests.

☒ **Go to Section I for QuaNtitative leveling**

☐ **QuaLitative** (collection, analysis, and reporting of narrative data)

Rich narrative data to gain a deep understanding of phenomena, meanings, perceptions, concepts, and experiences from those experiencing it. Sample sizes are relatively small and determined by the point of redundancy when no new information is gleaned, and key themes are reiterated (data saturation). Data are analyzed using thematic analysis. Often a starting point for studies when little research exists; may use results to design empirical studies. Common methods are focus groups, individual interviews (unstructured or semi-structured), and participation/observations.

☒ **Go to Section II for QuaLitative leveling**

☐ **Mixed methods** (results reported both numerically and narratively)

A study design (a single study or series of studies) that uses rigorous procedures in collecting and analyzing both quaNtitative and quaLitative data. *Note*: QuaNtitative survey designs with open-ended questions do not meet criteria for mixed methods research because those questions are not approached using strict quaLitative methods. Mixed methods studies provide a better understanding of research problems than using either a quaNtitative or quaLitative approach alone.

☒ **Go to Section III for Mixed Methods leveling**

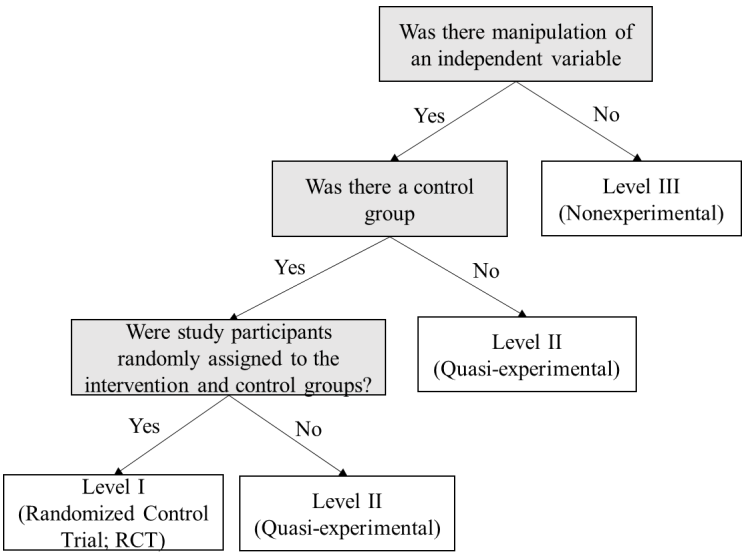
Section I: QuaNtitative Appraisal

A Is this a report of a single research study?

☐ Yes ☐ Continue to decision tree

☐ No ☐ Go to Section I: B

Level



Level I studies include randomized control trials (RCTs) or experimental studies

Level II studies have some degree of investigator control and some manipulation of an independent variable but lack random assignment to groups and may not have a control group

Quality

After determining the level of evidence, determine the quality of evidence using the considerations below:

Does the researcher identify what is known and not known about the problem?	☐ Yes	☐ No	
Does the researcher identify how the study will address any gaps in knowledge?	☐ Yes	☐ No	
Was the purpose of the study clearly presented?	☐ Yes	☐ No	
Was the literature review current (most sources within the past five years or a seminal study)?	☐ Yes	☐ No	
Was sample size sufficient based on study design and rationale?	☐ Yes	☐ No	
If there is a control group: ● Were the characteristics and/or demographics similar in both the control and intervention groups? ● If multiple settings were used, were the settings similar? ● Were all groups equally treated except for the intervention group(s)?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No	☐ N/A ☐ N/A ☐N/A
Are data collection methods described clearly?	☐ Yes	☐ No	
Were the instruments reliable (Cronbach's α [alpha] ≥ 0.70)?	☐ Yes	☐ No	☐ N/A
Was instrument validity discussed?	☐ Yes	☐ No	☐ N/A
If surveys or questionnaires were used, was the response rate ≥ 25%?	☐ Yes	☐ No	☐ N/A
Were the results presented clearly?	☐ Yes	☐ No	
If tables were presented, was the narrative consistent with the table content?	☐ Yes	☐ No	☐ N/A
Were study limitations identified and addressed?	☐ Yes	☐ No	
Were conclusions based on results?	☐ Yes	☐ No	

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:

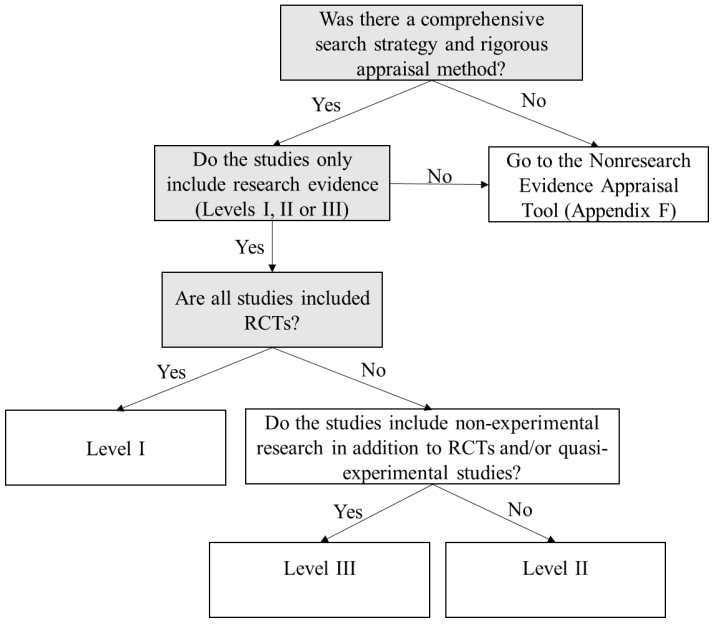
	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence. **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence. **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section I: QuaNtitative Appraisal (continued)

B Is this a summary of multiple sources of research evidence?

☐ Yes ☐ Continue to decision tree
☐ No ☐ Use the Nonresearch Evidence Appraisal tool (Appendix F)

Level



Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the variables of interest clearly identified?	☐ Yes	☐ No
	Was the search comprehensive and reproducible? ● Key terms stated ● Multiple databases searched and identified ● Inclusion and exclusion criteria stated	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Was there a flow diagram that included the number of studies eliminated at each level of review?	☐ Yes	☐ No
	Were details of included studies presented (design, sample, methods, results, outcomes, strengths, and limitations)?	☐ Yes	☐ No
	Were methods for appraising the strength of evidence (level and quality) described?	☐ Yes	☐ No
	Were conclusions based on results? ●Results were interpreted ●Conclusions flowed logically from the research question, results, and interpretation	 ☐ Yes ☐ Yes	 ☐ No ☐ No
	Did the systematic review include a section addressing limitations and how they were addressed?	☐ Yes	☐ No

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; recommendations consistent with the study's findings and include thorough reference to scientific evidence **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
	Record findings that help answer the EBP question on page **1**

Section II: QuaLitative Appraisal

A Is this a report of a single research study? ☒ Yes ☐ This is Level III evidence ☐ No ☐ Go to Section II: B

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Was there a clearly identifiable and articulated: ● Purpose? ● Research question? ● Justification for design and/or theoretical framework used?	☒ Yes ☒ Yes ☒ Yes	☐ No ☐ No ☐ No
	Do participants have knowledge of the subject the researchers are trying to explore?	☒ Yes	☐ No
	Were characteristics of study participants described?	☒ Yes	☐ No
	Was a verification process used in every step of data analysis (e.g., triangulation, response validation, independent double check, member checking)? (Credibility)	☒ Yes	☐ No
	Does the researcher provide sufficient documentation of their thinking, decisions, and methods related to the study allowing the reader to follow their decision-making (e.g., how themes and categories were formulated)? (Confirmability)	☒ Yes	☐ No
	Does the researcher provide an accurate and rich description of findings by providing the information necessary to evaluate the analysis of data? (Fittingness)	☒ Yes	☐ No
	Does the researcher acknowledge and/or address their own role and potential influence during data collection?	☒ Yes	☐ No
	Was sampling adequate, as evidenced by achieving data saturation?	☒ Yes	☐ No
	Does the researcher provide illustrations from the data? ● If yes, do the provided illustrations support conclusions?	☒ Yes ☒ Yes	☐ No ☐ No
	Is there congruency between the findings and the data?	☒ Yes	☐ No
	Is there congruency between the research methodology and: ● The research question(s) ● The methods to collect data ● The interpretation of results	☒ Yes ☒ Yes ☒ Yes	☐ No ☐ No ☐ No
	Are discussion and conclusions congruent with the purpose and objectives, and supported by literature?	☒ Yes	☐ No

	Are conclusions drawn based on the data collected (e.g., the product of the observations or interviews)?	■ Yes	☐ No

Section II: QuaLitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; it describes the specific techniques used to enhance the quality of the inquiry. Evidence of at least half or all the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any, of the features listed for high/good quality.
	Record findings that help answer the EBP question on page **1**

B	Is this a summary of multiple sources of qualitative research evidence with a comprehensive search strategy and rigorous appraisal method (Meta-synthesis)?	☐Yes ☐ This is Level III evidence ☐ No ☐Use the Nonresearch Evidence Appraisal tool (Appendix F)	
Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the search strategy and criteria for selecting primary studies clearly defined?	☐ Yes	☐ No
	Was there a description of a systematic and thorough process for how data were analyzed?	☐ Yes	☐ No
	● Were methods described for comparing findings from each study?	☐ Yes	☐ No
	● Were methods described for interpreting data?	☐ Yes	☐ No
	● Was sufficient data presented to support the interpretations?	☐ Yes	☐ No
	Did synthesis reflect: ● New insights? ● Discovery of essential features of the phenomena? ● A fuller understanding of the phenomena?	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Are findings clearly linked to and match the data?	☐ Yes	☐ No
	Are findings connected to the purpose, data collection, and analysis?	☐ Yes	☐ No
	Are discussion and conclusions connected to the purpose, objectives, and (if possible) supported by literature?	☐ Yes	☐ No
	Did authors describe clearly how they arrived at the interpretation of the findings?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		

A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report:

- *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated.
- *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence.
- *Verification*: The process of checking, confirming, and ensuring methodologic coherence.
- *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations.
- *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated.
- *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature.

C Low quality: Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any of the features listed for high/good quality**.**

Record findings that help answer the EBP question on page **1**

Section III: Mixed Methods Appraisal

You will need to appraise both parts of the study independently before appraising the study as a whole. Evaluate the quaNtitative part of the study using Section I. Evaluate the qualitative part of the studying using Section II, then return here to complete appraisal.

Level		Level	Quality
	QuaNtitative Portion		
	QuaLitative Portion		
	The level of mixed methods evidence is based on the sequence of data collection. Quantitative data collection followed by quaLitative (explanatory design) is based on the level of the quaNtitative portion. All other designs (exploratory, convergent, or multiphasic) are Level III evidence. Explanatory sequential designs collected quantitative data first, followed by qualitative. Exploratory sequential designs collect qualitative data first, followed by quantitative. Convergent parallel designs collect quantitative and qualitative data at the same time. Multiphasic designs collect qualitative and quantitative data over more than one phase.		
Quality	After determining the level of evidence, determine the quality of evidence using the considerations below:		
	Was the mixed-methods research design relevant to address both quaNtitative and quaLitative research questions (or objectives)?	☐ Yes	☐ No
	Was the research design relevant to address the quaNtitative and the quaLitative aspects of the mixed-methods question (or objective)?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		
	A High quality: Contains high-quality quaNtitative and quaLitative study components; highly relevant study design; relevant integration of data or results; and careful consideration of the limitations of the chosen approach. **B Good quality:** Contains good-quality quaNtitative and quaLitative study components; relevant study design; moderately relevant integration of data or results; and some discussion of limitations of integration. **C Low quality:** Contains low quality quaNtitative and quaLitative study components; study design not relevant to research questions or objectives; poorly integrated data or results; and no consideration of limits of integration.		

Record findings that help answer the EBP question on page **1**

Johns Hopkins Evidence-Based Practice Model for Nursing and Healthcare Professionals
Research Evidence Appraisal Tool

Does this evidence answer the EBP question?

☒ Yes → Continue appraisal ☐ No → STOP, do not continue evidence appraisal

Article Summary Information

Article Title: Prelicensure Virtual Clinical Practicum to Improve Quality and Safety Education for Nurses Competencies: Implications for Professional Development Practitioners

Author(s): (Halstead & Letourneau)	Number: 2169-981X (Electronic) 21699798 (Linking)
Population: prelicensure, baccalaureate nursing students Size: *n* = 103 Setting: public university in the west central region of Florida from March 2020 to May 2020	Publication date: August 16, 2022

Complete after appraisal

Evidence level: Level III
Quality rating: Good

Study findings that help answer the EBP question:

- Fluctuating Prelicensure
- Due to Covid-19 there were varying responses from schools and hospitals in their education of NGNs. However, the implementation of a virtual clinical practicum helped to improve all areas of QSEN for NGNs.
- Increased support for NGNs targeted at developing evidence-based practices and quality improvement competencies to better prepare them.

Article Appraisal Workflow

Is this study:

■ **QuaNtitative** (collection, analysis, and reporting of numerical data)
Numerical data (how many, how much, or how often) are used to formulate facts, uncover patterns, and generalize to a larger population; provides observed effects of a program, problem, or condition. Common methods are polls, surveys, observations, and reviews of records or documents. Data are analyzed using statistical tests.

☒ **Go to Section I for QuaNtitative leveling**

☐ **QuaLitative**(collection, analysis, and reporting of narrative data)
Rich narrative data to gain a deep understanding of phenomena, meanings, perceptions, concepts, and experiences from those experiencing it. Sample sizes are relatively small and determined by the point of redundancy when no new information is gleaned, and key themes are reiterated (data saturation). Data are analyzed using thematic analysis. Often a starting point for studies when little research exists; may use results to design empirical studies. Common methods are focus groups, individual interviews (unstructured or semi-structured), and participation/observations.

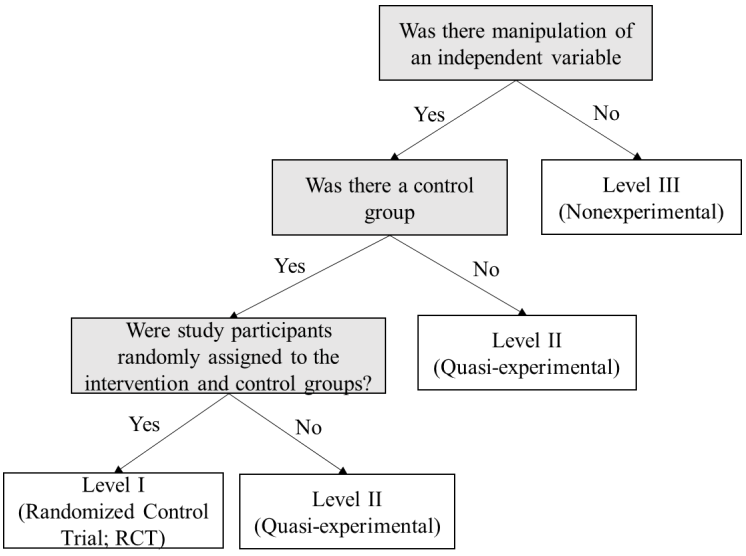
☒ **Go to Section II for QuaLitative leveling**

☐ **Mixed methods**(results reported both numerically and narratively)
A study design (a single study or series of studies) that uses rigorous procedures in collecting and analyzing both quaNtitative and quaLitative data. *Note*: QuaNtitative survey designs with open-ended questions do not meet criteria for mixed methods research because those questions are not approached using strict quaLitative methods. Mixed methods studies provide a better understanding of research problems than using either a quaNtitative or quaLitative approach alone.

☒ **Go to Section III for Mixed Methods leveling**

A Is this a report of a single research study?
■ Yes → Continue to decision tree ☐ No → Go to Section I: B

Level



Level I studies include randomized control trials (RCTs) or experimental studies

Level II studies have some degree of investigator control and some manipulation of an independent variable but lack random assignment to groups and may not have a control group

Qua

After determining the level of evidence, determine the quality of evidence using the considerations below:

lit y	Does the researcher identify what is known and not known about the problem?	■ Yes	☐ No	
	Does the researcher identify how the study will address any gaps in knowledge?	■ Yes	☐ No	
	Was the purpose of the study clearly presented?	■ Yes	☐ No	
	Was the literature review current (most sources within the past five years or a seminal study)?	■ Yes	☐ No	
	Was sample size sufficient based on study design and rationale?	■ Yes	☐ No	
	If there is a control group: ● Were the characteristics and/or demographics similar in both the control and intervention groups? ● If multiple settings were used, were the settings similar? ● Were all groups equally treated except for the intervention group(s)?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No	■ N/A ■ N/A ■ N/A
	Are data collection methods described clearly?	■ Yes	☐ No	
	Were the instruments reliable (Cronbach's α [alpha] ≥ 0.70)?	☐ Yes	■ No	☐ N/A
	Was instrument validity discussed?	■ Yes	☐ No	☐ N/A
	If surveys or questionnaires were used, was the response rate ≥ 25%?	☐ Yes	☐ No	■ N/A
	Were the results presented clearly?	■ Yes	☐ No	
	If tables were presented, was the narrative consistent with the table content?	■ Yes	☐ No	☐ N/A
	Were study limitations identified and addressed?	■ Yes	☐ No	
	Were conclusions based on results?	■ Yes	☐ No	

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence. **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence. **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.

Record findings that help answer the EBP question on page **1**

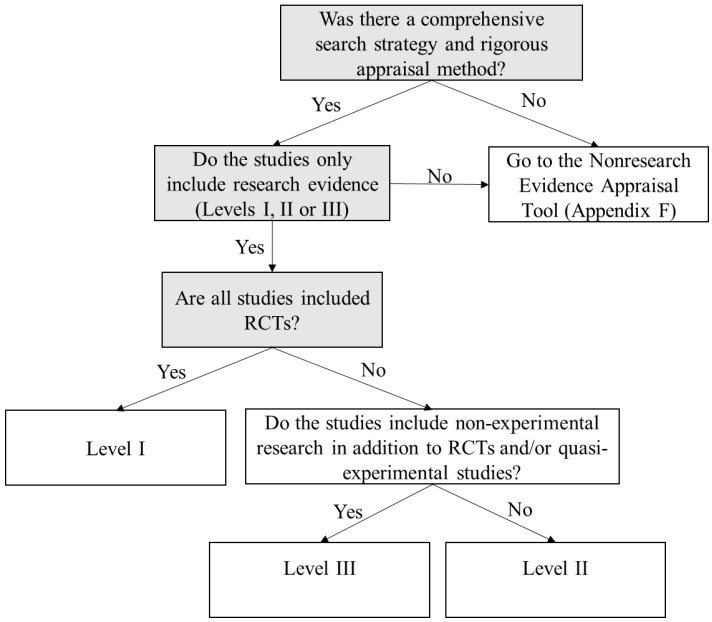
Section I: QuaNtitative Appraisal (continued)

B Is this a summary of multiple sources of research evidence?

☐ Yes → Continue to decision tree

☐ No – > Use the Nonresearch Evidence Appraisal tool (Appendix F)

Level



Quality

After determining level of evidence, determine the quality of evidence using the considerations below:		
Were the variables of interest clearly identified?	☐ Yes	☐ No
Was the search comprehensive and reproducible? ● Key terms stated ● Multiple databases searched and identified ● Inclusion and exclusion criteria stated	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
Was there a flow diagram that included the number of studies eliminated at each level of review?	☐ Yes	☐ No
Were details of included studies presented (design, sample, methods, results, outcomes, strengths, and limitations)?	☐ Yes	☐ No
Were methods for appraising the strength of evidence (level and quality) described?	☐ Yes	☐ No
Were conclusions based on results? ●Results were interpreted ●Conclusions flowed logically from the research question, results, and interpretation	 ☐ Yes ☐ Yes	 ☐ No ☐ No

	Did the systematic review include a section addressing limitations and how they were addressed?	☐ Yes	☐ No

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; recommendations consistent with the study's findings and include thorough reference to scientific evidence **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section II: QuaLitative Appraisal

A Is this a report of a single research study? ☐Yes ☐ This is Level III evidence ☐No ☐ Go to Section II: B

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Was there a clearly identifiable and articulated: ● Purpose? ● Research question? ● Justification for design and/or theoretical framework used?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No
	Do participants have knowledge of the subject the researchers are trying to explore?	☐ Yes	☐ No
	Were characteristics of study participants described?	☐ Yes	☐ No
	Was a verification process used in every step of data analysis (e.g., triangulation, response validation, independent double check, member checking)? (Credibility)	☐ Yes	☐ No
	Does the researcher provide sufficient documentation of their thinking, decisions, and methods related to the study allowing the reader to follow their decision-making (e.g., how themes and categories were formulated)? (Confirmability)	☐ Yes	☐ No
	Does the researcher provide an accurate and rich description of findings by providing the information necessary to evaluate the analysis of data? (Fittingness)	☐ Yes	☐ No
	Does the researcher acknowledge and/or address their own role and potential influence during data collection?	☐ Yes	☐ No
	Was sampling adequate, as evidenced by achieving data saturation?	☐ Yes	☐ No
	Does the researcher provide illustrations from the data? ● If yes, do the provided illustrations support conclusions?	☐ Yes ☐ Yes	☐ No ☐ No
	Is there congruency between the findings and the data?	☐ Yes	☐ No
	Is there congruency between the research methodology and: ● The research question(s) ● The methods to collect data ● The interpretation of results	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No
	Are discussion and conclusions congruent with the purpose and objectives, and supported by literature?	☐ Yes	☐ No
	Are conclusions drawn based on the data collected (e.g., the product of the observations or interviews)?	☐ Yes	☐ No

Section II: QuaLitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; it describes the specific techniques used to enhance the quality of the inquiry. Evidence of at least half or all the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any, of the features listed for high/good quality.
	Record findings that help answer the EBP question on page **1**

B	Is this a summary of multiple sources of qualitative research evidence with a comprehensive search strategy and rigorous appraisal method (Meta-synthesis)?	☐Yes ☐ This is Level III evidence ☐ No ☐Use the Nonresearch Evidence Appraisal tool (Appendix F)

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the search strategy and criteria for selecting primary studies clearly defined?	☐ Yes	☐ No
	Was there a description of a systematic and thorough process for how data were analyzed?	☐ Yes	☐ No
	● Were methods described for comparing findings from each study?	☐ Yes	☐ No
	● Were methods described for interpreting data?	☐ Yes	☐ No
	● Was sufficient data presented to support the interpretations?	☐ Yes	☐ No
	Did synthesis reflect: ● New insights? ● Discovery of essential features of the phenomena? ● A fuller understanding of the phenomena?	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Are findings clearly linked to and match the data?	☐ Yes	☐ No
	Are findings connected to the purpose, data collection, and analysis?	☐ Yes	☐ No
	Are discussion and conclusions connected to the purpose, objectives, and (if possible) supported by literature?	☐ Yes	☐ No
	Did authors describe clearly how they arrived at the interpretation of the findings?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		

A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report:

- *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated.
- *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence.
- *Verification*: The process of checking, confirming, and ensuring methodologic coherence.
- *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations.
- *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated.
- *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature.

C Low quality: Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any of the features listed for high/good quality**.**

Record findings that help answer the EBP question on page **1**

Section III: Mixed Methods Appraisal

You will need to appraise both parts of the study independently before appraising the study as a whole. Evaluate the quaNtitative part of the study using Section I. Evaluate the qualitative part of the studying using Section II, then return here to complete appraisal.

Level

	Level	Quality
QuaNtitative Portion		
QuaLitative Portion		

The level of mixed methods evidence is based on the sequence of data collection. Quantitative data collection followed by quaLitative (explanatory design) is based on the level of the quaNtitative portion. All other designs (exploratory, convergent, or multiphasic) are Level III evidence.

Explanatory sequential designs collected quantitative data first, followed by qualitative.
Exploratory sequential designs collect qualitative data first, followed by quantitative.
Convergent parallel designs collect quantitative and qualitative data at the same time.
Multiphasic designs collect qualitative and quantitative data over more than one phase.

Quality

After determining the level of evidence, determine the quality of evidence using the considerations below:

Was the mixed-methods research design relevant to address both quaNtitative and quaLitative research questions (or objectives)?	☐ Yes	☐ No
Was the research design relevant to address the quaNtitative and the quaLitative aspects of the mixed-methods question (or objective)?	☐ Yes	☐ No

Circle the appropriate quality rating below:

A High quality: Contains high-quality quaNtitative and quaLitative study components; highly relevant study design; relevant integration of data or results; and careful consideration of the limitations of the chosen approach.

B Good quality: Contains good-quality quaNtitative and quaLitative study components; relevant study design; moderately relevant integration of data or results; and some discussion of limitations of integration.

C Low quality: Contains low quality quaNtitative and quaLitative study components; study design not relevant to research questions or objectives; poorly integrated data or results; and no consideration of limits of integration.

Record findings that help answer the EBP question on page **1**

Johns Hopkins Evidence-Based Practice Model for Nursing and Healthcare Professionals
Research Evidence Appraisal Tool

Does this evidence answer the EBP question?

☒ Yes → Continue appraisal ☐ No → STOP, do not continue evidence appraisal

Article Summary Information

Article Title: Challenges faced by new nurses during the COVID-19 pandemic

Author(s): (Jerome-D'Emilia, Suplee, & Linz)	Number: 1547-5069 (Electronic) 15276546 (Linking)
Population: new nurses Size: *n*=29 Setting: March - May 2021, who had 3-10 months of experience when COVID-19 hit	Publication date: May 24, 2022

Complete after appraisal

Evidence level: III
Quality rating: High

Study findings that help answer the EBP question:

- Common themes NGNs felt are not being prepared, being thrown into an overwhelming role, making efforts to avoid infection, feelings of sadness for their patients, and feelings of not being prepared for all the new information/skills they had to learn.
- Development of a team-like workplace inside and outside the hospital setting. Revision of orientation programs to include emergency management, disaster training, death and dying, and coping strategies.

Article Appraisal Workflow

Is this study:

☐ **QuaNtitative** (collection, analysis, and reporting of numerical data)

Numerical data (how many, how much, or how often) are used to formulate facts, uncover patterns, and generalize to a larger population; provides observed effects of a program, problem, or condition. Common methods are polls, surveys, observations, and reviews of records or documents. Data are analyzed using statistical tests.

☒ **Go to Section I for QuaNtitative leveling**

☐ **QuaLitative** (collection, analysis, and reporting of narrative data)

Rich narrative data to gain a deep understanding of phenomena, meanings, perceptions, concepts, and experiences from those experiencing it. Sample sizes are relatively small and determined by the point of redundancy when no new information is gleaned, and key themes are reiterated (data saturation). Data are analyzed using thematic analysis. Often a starting point for studies when little research exists; may use results to design empirical studies. Common methods are focus groups, individual interviews (unstructured or semi-structured), and participation/observations.

☒ **Go to Section II for QuaLitative leveling**

☐ **Mixed methods** (results reported both numerically and narratively)

A study design (a single study or series of studies) that uses rigorous procedures in collecting and analyzing both quaNtitative and quaLitative data. *Note*: QuaNtitative survey designs with open-ended questions do not meet criteria for mixed methods research because those questions are not approached using strict quaLitative methods. Mixed methods studies provide a better understanding of research problems than using either a quaNtitative or quaLitative approach alone.

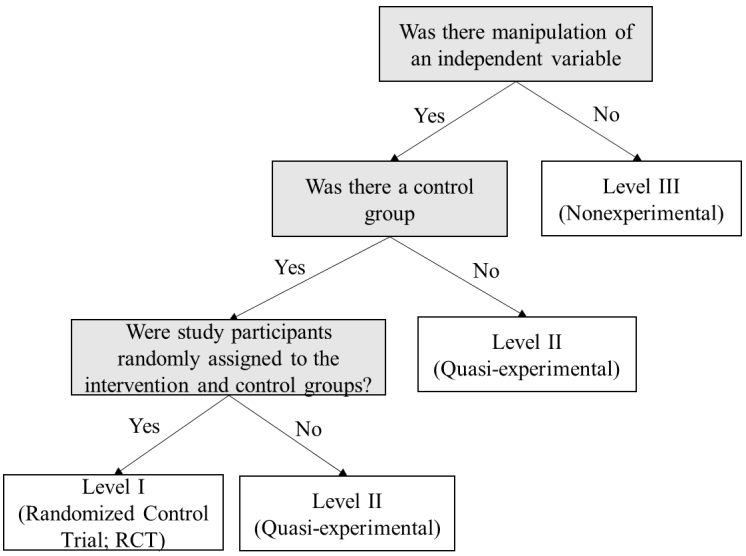
☒ **Go to Section III for Mixed Methods leveling**

A Is this a report of a single research study?

☐ Yes ☐ Continue to decision tree

☐ No ☐ Go to Section I: B

Level



Level I studies include randomized control trials (RCTs) or experimental studies

Level II studies have some degree of investigator control and some manipulation of an independent variable but lack random assignment to groups and may not have a control group

Quality

After determining the level of evidence, determine the quality of evidence using the considerations below:

Does the researcher identify what is known and not known about the problem?	☐ Yes	☐ No	
Does the researcher identify how the study will address any gaps in knowledge?	☐ Yes	☐ No	
Was the purpose of the study clearly presented?	☐ Yes	☐ No	
Was the literature review current (most sources within the past five years or a seminal study)?	☐ Yes	☐ No	
Was sample size sufficient based on study design and rationale?	☐ Yes	☐ No	
If there is a control group: ● Were the characteristics and/or demographics similar in both the control and intervention groups? ● If multiple settings were used, were the settings similar? ● Were all groups equally treated except for the intervention group(s)?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No	☐ N/A ☐ N/A ☐N/A
Are data collection methods described clearly?	☐ Yes	☐ No	
Were the instruments reliable (Cronbach's α [alpha] ≥ 0.70)?	☐ Yes	☐ No	☐ N/A
Was instrument validity discussed?	☐ Yes	☐ No	☐ N/A
If surveys or questionnaires were used, was the response rate ≥ 25%?	☐ Yes	☐ No	☐ N/A
Were the results presented clearly?	☐ Yes	☐ No	
If tables were presented, was the narrative consistent with the table content?	☐ Yes	☐ No	☐ N/A
Were study limitations identified and addressed?	☐ Yes	☐ No	
Were conclusions based on results?	☐ Yes	☐ No	

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:

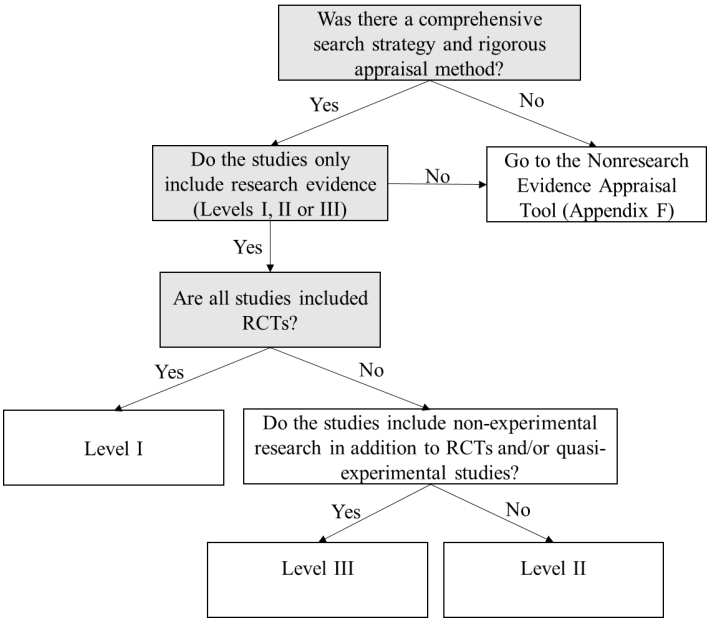
	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence. **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence. **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section I: QuaNtitative Appraisal (continued)

B Is this a summary of multiple sources of research evidence?

☐ Yes
Continue to decision tree
☐ No
Use the Nonresearch Evidence Appraisal tool (Appendix F)

Level



Quality

After determining level of evidence, determine the quality of evidence using the considerations below:		
Were the variables of interest clearly identified?	☐ Yes	☐ No
Was the search comprehensive and reproducible? ● Key terms stated ● Multiple databases searched and identified ● Inclusion and exclusion criteria stated	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
Was there a flow diagram that included the number of studies eliminated at each level of review?	☐ Yes	☐ No
Were details of included studies presented (design, sample, methods, results, outcomes, strengths, and limitations)?	☐ Yes	☐ No
Were methods for appraising the strength of evidence (level and quality) described?	☐ Yes	☐ No
Were conclusions based on results? ●Results were interpreted ●Conclusions flowed logically from the research question, results, and interpretation	 ☐ Yes ☐ Yes	 ☐ No ☐ No
Did the systematic review include a section addressing limitations and how they were addressed?	☐ Yes	☐ No

Section I: QuaNtitative Appraisal (continued)

Qua

Circle the appropriate quality rating below:

l i t y	**A High quality:** Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; recommendations consistent with the study's findings and include thorough reference to scientific evidence **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section II: QuaLitative Appraisal

A Is this a report of a single research study? ☐Yes ☐ This is Level III evidence ☐No ☐ Go to Section II: B

Q u a l i t y	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Was there a clearly identifiable and articulated: • Purpose? • Research question? • Justification for design and/or theoretical framework used?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No
	Do participants have knowledge of the subject the researchers are trying to explore?	☐ Yes	☐ No
	Were characteristics of study participants described?	☐ Yes	☐ No
	Was a verification process used in every step of data analysis (e.g., triangulation, response validation, independent double check, member checking)? (Credibility)	☐ Yes	☐ No
	Does the researcher provide sufficient documentation of their thinking, decisions, and methods related to the study allowing the reader to follow their decision-making (e.g., how themes and categories were formulated)? (Confirmability)	☐ Yes	☐ No
	Does the researcher provide an accurate and rich description of findings by providing the information necessary to evaluate the analysis of data? (Fittingness)	☐ Yes	☐ No

Does the researcher acknowledge and/or address their own role and potential influence during data collection?	■ Yes	☐ No
Was sampling adequate, as evidenced by achieving data saturation?	■ Yes	☐ No
Does the researcher provide illustrations from the data? ● If yes, do the provided illustrations support conclusions?	■ Yes ■ Yes	☐ No ☐ No
Is there congruency between the findings and the data?	■ Yes	☐ No
Is there congruency between the research methodology and: ● The research question(s) ● The methods to collect data ● The interpretation of results	■ Yes ■ Yes ■ Yes	☐ No ☐ No ☐ No
Are discussion and conclusions congruent with the purpose and objectives, and supported by literature?	■ Yes	☐ No
Are conclusions drawn based on the data collected (e.g., the product of the observations or interviews)?	■ Yes	☐ No

Section II: QuaLitative Appraisal (continued)

Qu	Circle the appropriate quality rating below:

a l i t y	**A/B High/Good Quality:** The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; it describes the specific techniques used to enhance the quality of the inquiry. Evidence of at least half or all the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any, of the features listed for high/good quality.
Record findings that help answer the EBP question on page **1**	

Section II: QuaLitative Appraisal

B	Is this a summary of multiple sources of qualitative research evidence with a comprehensive search strategy and rigorous appraisal method (Meta-synthesis)?	☐Yes ☐ This is Level III evidence ☐ No ☐Use the Nonresearch Evidence Appraisal tool (Appendix F)

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the search strategy and criteria for selecting primary studies clearly defined?	☐ Yes	☐ No
	Was there a description of a systematic and thorough process for how data were analyzed?	☐ Yes	☐ No
	● Were methods described for comparing findings from each study?	☐ Yes	☐ No
	● Were methods described for interpreting data?	☐ Yes	☐ No
	● Was sufficient data presented to support the interpretations?	☐ Yes	☐ No
	Did synthesis reflect: ● New insights? ● Discovery of essential features of the phenomena? ● A fuller understanding of the phenomena?	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Are findings clearly linked to and match the data?	☐ Yes	☐ No
	Are findings connected to the purpose, data collection, and analysis?	☐ Yes	☐ No
	Are discussion and conclusions connected to the purpose, objectives, and (if possible) supported by literature?	☐ Yes	☐ No
	Did authors describe clearly how they arrived at the interpretation of the findings?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		
	A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any of the features listed for high/good quality**.**		
	Record findings that help answer the EBP question on page **1**		

Section III: Mixed Methods Appraisal

You will need to appraise both parts of the study independently before appraising the study as a whole. Evaluate the quaNtitative part of the study using Section I. Evaluate the qualitative part of the studying using Section II, then return here to complete appraisal.

Level		Level	Quality
	QuaNtitative Portion		
	QuaLitative Portion		
	The level of mixed methods evidence is based on the sequence of data collection. Quantitative data collection followed by quaLitative (explanatory design) is based on the level of the quaNtitative portion. All other designs (exploratory, convergent, or multiphasic) are Level III evidence. Explanatory sequential designs collected quantitative data first, followed by qualitative. Exploratory sequential designs collect qualitative data first, followed by quantitative. Convergent parallel designs collect quantitative and qualitative data at the same time. Multiphasic designs collect qualitative and quantitative data over more than one phase.		
Quality	After determining the level of evidence, determine the quality of evidence using the considerations below:		
	Was the mixed-methods research design relevant to address both quaNtitative and quaLitative research questions (or objectives)?	☐ Yes	☐ No
	Was the research design relevant to address the quaNtitative and the quaLitative aspects of the mixed-methods question (or objective)?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		
	A High quality: Contains high-quality quaNtitative and quaLitative study components; highly relevant study design; relevant integration of data or results; and careful consideration of the limitations of the chosen approach. **B Good quality:** Contains good-quality quaNtitative and quaLitative study components; relevant study design; moderately relevant integration of data or results; and some discussion of limitations of integration. **C Low quality:** Contains low quality quaNtitative and quaLitative study components; study design not relevant to research questions or objectives; poorly integrated data or results; and no consideration of limits of integration.		

Record findings that help answer the EBP question on page **1**

Johns Hopkins Evidence-Based Practice Model for Nursing and Healthcare Professionals
Research Evidence Appraisal Tool

Does this evidence answer the EBP question?

☒ Yes → Continue appraisal ☐ No → STOP, do not continue evidence appraisal

Article Summary Information

Article Title:
Building on Early Coronavirus (COVID-19) pandemic Orientation Modifications to Improve Competency Validation for Newly Hired New-to-Practice and Experienced Nurses

Author(s): (Winslow et al.)	Number: 2169-9798
Population: nursing orientees Size: *n* = 247 Setting: GNO program	Publication date: May/June 2022

Complete after appraisal

Evidence level: III
Quality rating: Good

Study findings that help answer the EBP question:

- Human Resource leaders and Nursing professional development revised the general nursing orientation content and structure due to the changes that were brought about by COVID-19
- The pandemic forced nursing managers/educators to alter transition programs to accommodate to the rapid onboarding, synchronous and asynchronous virtual training platforms, PPE limitations, and social
- distancing while still providing hands-on experiences.
- Creative and innovative methods to onboard NGNs and provide guidance

Article Appraisal Workflow

Is this study:

☒ **QuaNtitative** (collection, analysis, and reporting of numerical data)

Numerical data (how many, how much, or how often) are used to formulate facts, uncover patterns, and generalize to a larger population; provides observed effects of a program, problem, or condition. Common methods are polls, surveys, observations, and reviews of records or documents. Data are analyzed using statistical tests.

☒ **Go to Section I for QuaNtitative leveling**

☐ **QuaLitative** (collection, analysis, and reporting of narrative data)

Rich narrative data to gain a deep understanding of phenomena, meanings, perceptions, concepts, and experiences from those experiencing it. Sample sizes are relatively small and determined by the point of redundancy when no new information is gleaned, and key themes are reiterated (data saturation). Data are analyzed using thematic analysis. Often a starting point for studies when little research exists; may use results to design empirical studies. Common methods are focus groups, individual interviews (unstructured or semi-structured), and participation/observations.

☒ **Go to Section II for QuaLitative leveling**

☐ **Mixed methods** (results reported both numerically and narratively)

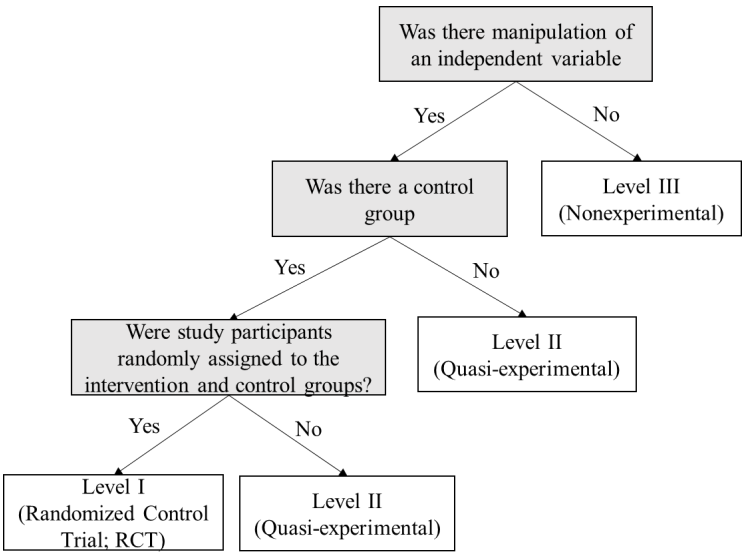
A study design (a single study or series of studies) that uses rigorous procedures in collecting and analyzing both quaNtitative and quaLitative data. *Note*: QuaNtitative survey designs with open-ended questions do not meet criteria for mixed methods research because those questions are not approached using strict quaLitative methods. Mixed methods studies provide a better understanding of research problems than using either a quaNtitative or quaLitative approach alone.

☒ **Go to Section III for Mixed Methods leveling**

A Is this a report of a single research study?

☐ Yes ☐ Continue to decision tree ☐ No ☐ Go to Section I: B

Level



Level I studies include randomized control trials (RCTs) or experimental studies

Level II studies have some degree of investigator control and some manipulation of an independent variable but lack random assignment to groups and may not have a control group

Quality

After determining the level of evidence, determine the quality of evidence using the considerations below:

Does the researcher identify what is known and not known about the problem?	☐ Yes	☐ No	
Does the researcher identify how the study will address any gaps in knowledge?	☐ Yes	☐ No	
Was the purpose of the study clearly presented?	☐ Yes	☐ No	
Was the literature review current (most sources within the past five years or a seminal study)?	☐ Yes	☐ No	
Was sample size sufficient based on study design and rationale?	☐ Yes	☐ No	
If there is a control group: ● Were the characteristics and/or demographics similar in both the control and intervention groups? ● If multiple settings were used, were the settings similar? ● Were all groups equally treated except for the intervention group(s)?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No	☐ N/A ☐ N/A ☐ N/A
Are data collection methods described clearly?	☐ Yes	☐ No	
Were the instruments reliable (Cronbach's α [alpha] ≥ 0.70)?	☐ Yes	☐ No	☐ N/A
Was instrument validity discussed?	☐ Yes	☐ No	☐ N/A
If surveys or questionnaires were used, was the response rate ≥ 25%?	☐ Yes	☐ No	☐ N/A
Were the results presented clearly?	☐ Yes	☐ No	
If tables were presented, was the narrative consistent with the table content?	☐ Yes	☐ No	☐ N/A
Were study limitations identified and addressed?	☐ Yes	☐ No	
Were conclusions based on results?	☐ Yes	☐ No	

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:

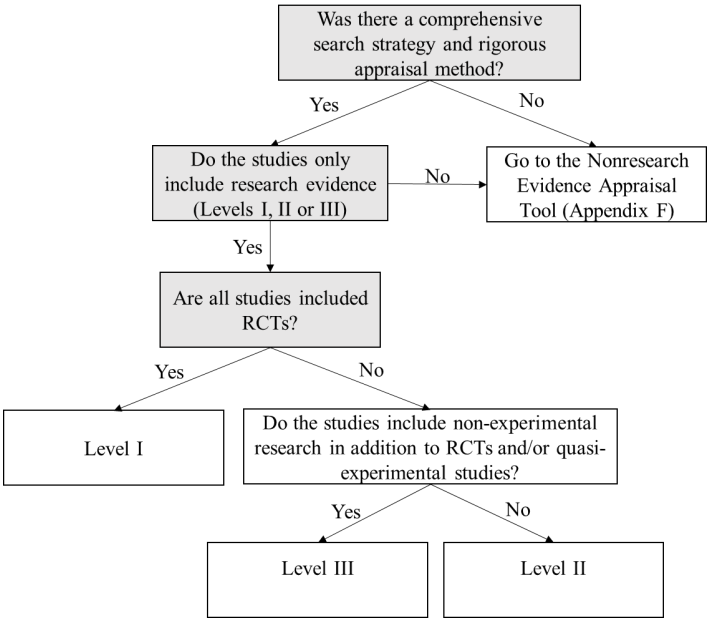
	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence. **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence. **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section I: QuaNtitative Appraisal (continued)

B Is this a summary of multiple sources of research evidence?

☐ Yes Continue to decision tree

☐ No Use the Nonresearch Evidence Appraisal tool (Appendix F)

Level	

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the variables of interest clearly identified?	☐ Yes	☐ No
	Was the search comprehensive and reproducible? ● Key terms stated ● Multiple databases searched and identified ● Inclusion and exclusion criteria stated	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Was there a flow diagram that included the number of studies eliminated at each level of review?	☐ Yes	☐ No
	Were details of included studies presented (design, sample, methods, results, outcomes, strengths, and limitations)?	☐ Yes	☐ No
	Were methods for appraising the strength of evidence (level and quality) described?	☐ Yes	☐ No
	Were conclusions based on results? ●Results were interpreted ●Conclusions flowed logically from the research question, results, and interpretation	 ☐ Yes ☐ Yes	 ☐ No ☐ No
	Did the systematic review include a section addressing limitations and how they were addressed?	☐ Yes	☐ No

Section I: QuaNtitative Appraisal (continued)

Qua	Circle the appropriate quality rating below:

l i t y	**A High quality:** Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; recommendations consistent with the study's findings and include thorough reference to scientific evidence **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section II: QuaLitative Appraisal

A Is this a report of a single research study? ☐Yes ☐ This is Level III evidence ☐No ☐ Go to Section II: B

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Was there a clearly identifiable and articulated: ● Purpose? ● Research question? ● Justification for design and/or theoretical framework used?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No
	Do participants have knowledge of the subject the researchers are trying to explore?	☐ Yes	☐ No
	Were characteristics of study participants described?	☐ Yes	☐ No
	Was a verification process used in every step of data analysis (e.g., triangulation, response validation, independent double check, member checking)? (Credibility)	☐ Yes	☐ No
	Does the researcher provide sufficient documentation of their thinking, decisions, and methods related to the study allowing the reader to follow their decision-making (e.g., how themes and categories were formulated)? (Confirmability)	☐ Yes	☐ No
	Does the researcher provide an accurate and rich description of findings by providing the information necessary to evaluate the analysis of data? (Fittingness)	☐ Yes	☐ No
	Does the researcher acknowledge and/or address their own role and potential influence during data collection?	☐ Yes	☐ No
	Was sampling adequate, as evidenced by achieving data saturation?	☐ Yes	☐ No
	Does the researcher provide illustrations from the data? ● If yes, do the provided illustrations support conclusions?	☐ Yes ☐ Yes	☐ No ☐ No
	Is there congruency between the findings and the data?	☐ Yes	☐ No
	Is there congruency between the research methodology and: ● The research question(s) ● The methods to collect data ● The interpretation of results	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No
	Are discussion and conclusions congruent with the purpose and objectives, and supported by literature?	☐ Yes	☐ No
	Are conclusions drawn based on the data collected (e.g., the product of the observations or interviews)?	☐ Yes	☐ No

Section II: QuaLitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:
	A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; it describes the specific techniques used to enhance the quality of the inquiry. Evidence of at least half or all the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any, of the features listed for high/good quality.
	Record findings that help answer the EBP question on page **1**

B	Is this a summary of multiple sources of qualitative research evidence with a comprehensive search strategy and rigorous appraisal method (Meta-synthesis)?	☐Yes ☐ This is Level III evidence ☐ No ☐Use the Nonresearch Evidence Appraisal tool (Appendix F)	
Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the search strategy and criteria for selecting primary studies clearly defined?	☐ Yes	☐ No
	Was there a description of a systematic and thorough process for how data were analyzed?	☐ Yes	☐ No
	● Were methods described for comparing findings from each study?	☐ Yes	☐ No
	● Were methods described for interpreting data?	☐ Yes	☐ No
	● Was sufficient data presented to support the interpretations?	☐ Yes	☐ No
	Did synthesis reflect: ● New insights? ● Discovery of essential features of the phenomena? ● A fuller understanding of the phenomena?	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Are findings clearly linked to and match the data?	☐ Yes	☐ No
	Are findings connected to the purpose, data collection, and analysis?	☐ Yes	☐ No
	Are discussion and conclusions connected to the purpose, objectives, and (if possible) supported by literature?	☐ Yes	☐ No
	Did authors describe clearly how they arrived at the interpretation of the findings?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		

A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report:

- *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated.
- *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence.
- *Verification*: The process of checking, confirming, and ensuring methodologic coherence.
- *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations.
- *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated.
- *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature.

C Low quality: Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any of the features listed for high/good quality**.**

Record findings that help answer the EBP question on page **1**

Section III: Mixed Methods Appraisal

You will need to appraise both parts of the study independently before appraising the study as a whole. Evaluate the quaNtitative part of the study using Section I. Evaluate the qualitative part of the studying using Section II, then return here to complete appraisal.

Level

	Level	Quality
QuaNtitative Portion		
QuaLitative Portion		

The level of mixed methods evidence is based on the sequence of data collection. Quantitative data collection followed by quaLitative (explanatory design) is based on the level of the quaNtitative portion. All other designs (exploratory, convergent, or multiphasic) are Level III evidence.

Explanatory sequential designs collected quantitative data first, followed by qualitative.
Exploratory sequential designs collect qualitative data first, followed by quantitative.
Convergent parallel designs collect quantitative and qualitative data at the same time.
Multiphasic designs collect qualitative and quantitative data over more than one phase.

Quality

After determining the level of evidence, determine the quality of evidence using the considerations below:

Was the mixed-methods research design relevant to address both quaNtitative and quaLitative research questions (or objectives)?	☐ Yes	☐ No
Was the research design relevant to address the quaNtitative and the quaLitative aspects of the mixed-methods question (or objective)?	☐ Yes	☐ No

Circle the appropriate quality rating below:

A High quality: Contains high-quality quaNtitative and quaLitative study components; highly relevant study design; relevant integration of data or results; and careful consideration of the limitations of the chosen approach.

B Good quality: Contains good-quality quaNtitative and quaLitative study components; relevant study design; moderately relevant integration of data or results; and some discussion of limitations of integration.

C Low quality: Contains low quality quaNtitative and quaLitative study components; study design not relevant to research questions or objectives; poorly integrated data or results; and no consideration of limits of integration.

Record findings that help answer the EBP question on page **1**

Johns Hopkins Evidence-Based Practice Model for Nursing and Healthcare Professionals
Research Evidence Appraisal Tool

Does this evidence answer the EBP question?
☒ Yes → Continue appraisal ☐ No ☐ STOP, do not continue evidence appraisal

Article Summary Information

Article Title:
Novice nurses' transition to clinical setting in the COVID-19 pandemic: a phenomenological hermeneutic study

Author(s): (Fernández-Basanta, Espreméns-Cidón & Movilla-Fernández)	Number: 1322-7696 (Print) 13227696 (Linking)
Population: registered novice nurses experienced covid-19 within their first 5 years Size: *n* = 14 (twelve women and two men) Setting: two health areas in the northwest	Publication date: April 11, 2022

Complete after appraisal

Evidence level: III
Quality rating: Good

Study findings that help answer the EBP question:

- Illuminate the experiences of the novice nurses as they worked through the COVID-19 pandemic
- How the COVID-19 pandemic exposed and increased weakness in the healthcare system
- novice nurses have become the most vulnerable group

Article Appraisal Workflow

Is this study:

☐ **QuaNtitative** (collection, analysis, and reporting of numerical data)

Numerical data (how many, how much, or how often) are used to formulate facts, uncover patterns, and generalize to a larger population; provides observed effects of a program, problem, or condition. Common methods are polls, surveys, observations, and reviews of records or documents. Data are analyzed using statistical tests.

☒ **Go to Section I for QuaNtitative leveling**

☐ **QuaLitative** (collection, analysis, and reporting of narrative data)

Rich narrative data to gain a deep understanding of phenomena, meanings, perceptions, concepts, and experiences from those experiencing it. Sample sizes are relatively small and determined by the point of redundancy when no new information is gleaned, and key themes are reiterated (data saturation). Data are analyzed using thematic analysis. Often a starting point for studies when little research exists; may use results to design empirical studies. Common methods are focus groups, individual interviews (unstructured or semi-structured), and participation/observations.

☒ **Go to Section II for QuaLitative leveling**

☐ **Mixed methods** (results reported both numerically and narratively)

A study design (a single study or series of studies) that uses rigorous procedures in collecting and analyzing both quaNtitative and quaLitative data. *Note*: QuaNtitative survey designs with open-ended questions do not meet criteria for mixed methods research because those questions are not approached using strict quaLitative methods. Mixed methods studies provide a better understanding of research problems than using either a quaNtitative or quaLitative approach alone.

☒ **Go to Section III for Mixed Methods leveling**

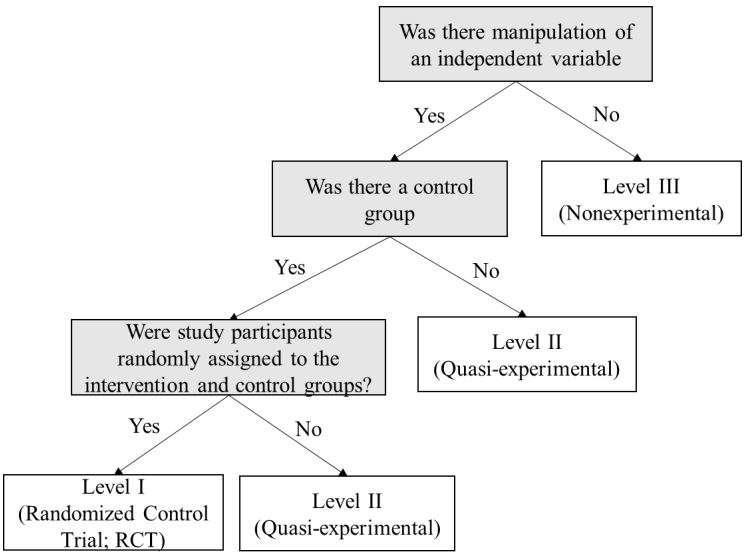
Section I: QuaNtitative Appraisal

A Is this a report of a single research study?

☐ Yes ☐ Continue to decision tree

☐ No ☐ Go to Section I: B

Level



Level I studies include randomized control trials (RCTs) or experimental studies

Level II studies have some degree of investigator control and some manipulation of an independent variable but lack random assignment to groups and may not have a control group

Quality

After determining the level of evidence, determine the quality of evidence using the considerations below:

Does the researcher identify what is known and not known about the problem?	☐ Yes	☐ No	
Does the researcher identify how the study will address any gaps in knowledge?	☐ Yes	☐ No	
Was the purpose of the study clearly presented?	☐ Yes	☐ No	
Was the literature review current (most sources within the past five years or a seminal study)?	☐ Yes	☐ No	
Was sample size sufficient based on study design and rationale?	☐ Yes	☐ No	
If there is a control group: ● Were the characteristics and/or demographics similar in both the control and intervention groups? ● If multiple settings were used, were the settings similar? ● Were all groups equally treated except for the intervention group(s)?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No	☐ N/A ☐ N/A ☐N/A
Are data collection methods described clearly?	☐ Yes	☐ No	
Were the instruments reliable (Cronbach's α [alpha] ≥ 0.70)?	☐ Yes	☐ No	☐ N/A
Was instrument validity discussed?	☐ Yes	☐ No	☐ N/A
If surveys or questionnaires were used, was the response rate ≥ 25%?	☐ Yes	☐ No	☐ N/A
Were the results presented clearly?	☐ Yes	☐ No	
If tables were presented, was the narrative consistent with the table content?	☐ Yes	☐ No	☐ N/A
Were study limitations identified and addressed?	☐ Yes	☐ No	
Were conclusions based on results?	☐ Yes	☐ No	

Section I: QuaNtitative Appraisal (continued)

Quality	Circle the appropriate quality rating below:

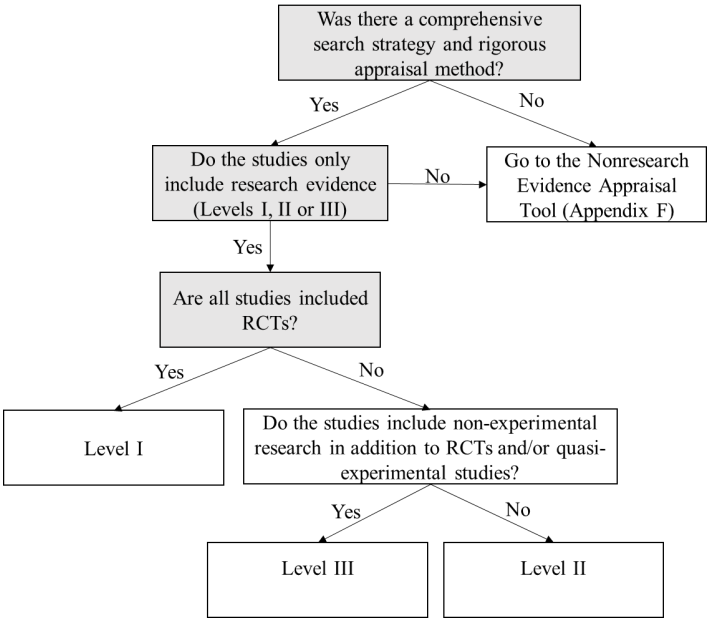
	A High quality: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence. **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence. **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section I: QuaNtitative Appraisal (continued)

B Is this a summary of multiple sources of research evidence?

☐ Yes
Continue to decision tree
☐ No
Use the Nonresearch Evidence Appraisal tool (Appendix F)

Level



Quality

After determining level of evidence, determine the quality of evidence using the considerations below:		
Were the variables of interest clearly identified?	☐ Yes	☐ No
Was the search comprehensive and reproducible? ● Key terms stated ● Multiple databases searched and identified ● Inclusion and exclusion criteria stated	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
Was there a flow diagram that included the number of studies eliminated at each level of review?	☐ Yes	☐ No
Were details of included studies presented (design, sample, methods, results, outcomes, strengths, and limitations)?	☐ Yes	☐ No
Were methods for appraising the strength of evidence (level and quality) described?	☐ Yes	☐ No
Were conclusions based on results? ●Results were interpreted ●Conclusions flowed logically from the research question, results, and interpretation	 ☐ Yes ☐ Yes	 ☐ No ☐ No
Did the systematic review include a section addressing limitations and how they were addressed?	☐ Yes	☐ No

Section I: QuaNtitative Appraisal (continued)

Qua

Circle the appropriate quality rating below:

l i t y	**A High quality:** Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; recommendations consistent with the study's findings and include thorough reference to scientific evidence **B Good quality:** Reasonably consistent results; sufficient sample size for the study design; some control; fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence **C Low quality:** Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.
Record findings that help answer the EBP question on page **1**	

Section II: QuaLitative Appraisal

A Is this a report of a single research study? ☐ Yes ☐ This is Level III evidence
☐ No ☐ Go to Section II: B

Q u a l i t y	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Was there a clearly identifiable and articulated: • Purpose? • Research question? • Justification for design and/or theoretical framework used?	☐ Yes ☐ Yes ☐ Yes	☐ No ☐ No ☐ No
	Do participants have knowledge of the subject the researchers are trying to explore?	☐ Yes	☐ No
	Were characteristics of study participants described?	☐ Yes	☐ No
	Was a verification process used in every step of data analysis (e.g., triangulation, response validation, independent double check, member checking)? (Credibility)	☐ Yes	☐ No
	Does the researcher provide sufficient documentation of their thinking, decisions, and methods related to the study allowing the reader to follow their decision-making (e.g., how themes and categories were formulated)? (Confirmability)	☐ Yes	☐ No
	Does the researcher provide an accurate and rich description of findings by providing the information necessary to evaluate the analysis of data? (Fittingness)	☐ Yes	☐ No

	Does the researcher acknowledge and/or address their own role and potential influence during data collection?	■ Yes	☐ No
	Was sampling adequate, as evidenced by achieving data saturation?	■ Yes	☐ No
	Does the researcher provide illustrations from the data? ● If yes, do the provided illustrations support conclusions?	■ Yes ■ Yes	☐ No ☐ No
	Is there congruency between the findings and the data?	■ Yes	☐ No
	Is there congruency between the research methodology and: ● The research question(s) ● The methods to collect data ● The interpretation of results	■ Yes ■ Yes ■ Yes	☐ No ☐ No ☐ No
	Are discussion and conclusions congruent with the purpose and objectives, and supported by literature?	■ Yes	☐ No
	Are conclusions drawn based on the data collected (e.g., the product of the observations or interviews)?	■ Yes	☐ No

Section II: QuaLitative Appraisal (continued)

Qu	Circle the appropriate quality rating below:

a l i t y	**A/B High/Good Quality:** The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; it describes the specific techniques used to enhance the quality of the inquiry. Evidence of at least half or all the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any, of the features listed for high/good quality.
Record findings that help answer the EBP question on page **1**	

Section II: QuaLitative Appraisal

B	Is this a summary of multiple sources of qualitative research evidence with a comprehensive search strategy and rigorous appraisal method (Meta-synthesis)?	☐Yes ☐ This is Level III evidence ☐ No ☐Use the Nonresearch Evidence Appraisal tool (Appendix F)

Quality	After determining level of evidence, determine the quality of evidence using the considerations below:		
	Were the search strategy and criteria for selecting primary studies clearly defined?	☐ Yes	☐ No
	Was there a description of a systematic and thorough process for how data were analyzed?	☐ Yes	☐ No
	● Were methods described for comparing findings from each study?	☐ Yes	☐ No
	● Were methods described for interpreting data?	☐ Yes	☐ No
	● Was sufficient data presented to support the interpretations?	☐ Yes	☐ No
	Did synthesis reflect: ● New insights? ● Discovery of essential features of the phenomena? ● A fuller understanding of the phenomena?	 ☐ Yes ☐ Yes ☐ Yes	 ☐ No ☐ No ☐ No
	Are findings clearly linked to and match the data?	☐ Yes	☐ No
	Are findings connected to the purpose, data collection, and analysis?	☐ Yes	☐ No
	Are discussion and conclusions connected to the purpose, objectives, and (if possible) supported by literature?	☐ Yes	☐ No
	Did authors describe clearly how they arrived at the interpretation of the findings?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		
	A/B High/Good Quality: The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail; and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report: ● *Transparency*: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated. ● *Diligence*: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence. ● *Verification*: The process of checking, confirming, and ensuring methodologic coherence. ● *Self-reflection* and *self-scrutiny*: Being continuously aware of how a researcher's experiences, background, or prejudices might shape and bias analysis and interpretations. ● *Participant-driven inquiry*: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated. ● *Insightful interpretation*: Data and knowledge are linked in meaningful ways to relevant literature. **C Low quality:** Lack of clarity and coherence of reporting, lack of transparency in reporting methods; poor interpretation of data and offers little insight into the phenomena of interest; few, if any of the features listed for high/good quality**.**		
	Record findings that help answer the EBP question on page **1**		

Section III: Mixed Methods Appraisal

You will need to appraise both parts of the study independently before appraising the study as a whole. Evaluate the quaNtitative part of the study using Section I. Evaluate the qualitative part of the studying using Section II, then return here to complete appraisal.

Level		Level	Quality
	QuaNtitative Portion		
	QuaLitative Portion		
	The level of mixed methods evidence is based on the sequence of data collection. Quantitative data collection followed by quaLitative (explanatory design) is based on the level of the quaNtitative portion. All other designs (exploratory, convergent, or multiphasic) are Level III evidence. Explanatory sequential designs collected quantitative data first, followed by qualitative. Exploratory sequential designs collect qualitative data first, followed by quantitative. Convergent parallel designs collect quantitative and qualitative data at the same time. Multiphasic designs collect qualitative and quantitative data over more than one phase.		
Quality	After determining the level of evidence, determine the quality of evidence using the considerations below:		
	Was the mixed-methods research design relevant to address both quaNtitative and quaLitative research questions (or objectives)?	☐ Yes	☐ No
	Was the research design relevant to address the quaNtitative and the quaLitative aspects of the mixed-methods question (or objective)?	☐ Yes	☐ No
	Circle the appropriate quality rating below:		
	A High quality: Contains high-quality quaNtitative and quaLitative study components; highly relevant study design; relevant integration of data or results; and careful consideration of the limitations of the chosen approach. **B Good quality:** Contains good-quality quaNtitative and quaLitative study components; relevant study design; moderately relevant integration of data or results; and some discussion of limitations of integration. **C Low quality:** Contains low quality quaNtitative and quaLitative study components; study design not relevant to research questions or objectives; poorly integrated data or results; and no consideration of limits of integration.		
	Record findings that help answer the EBP question on page **1**		