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## The Current State Of Nursing Education In The Context Of COVID-19

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THE CURRENT STATE OF NURSING EDUCATION IN THE CONTEXT OF COVID-19

by

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### **Abstract**

The field of nursing education has undergone massive changes in the context of COVID-19. Healthcare systems shifted to take care of an influx of patients, personal protective equipment shortages arose, and fear of transmission of the virus contributed to many nursing programs quickly transitioning to online instruction. These quick shifts leave many questions about the quality of education nursing students are currently experiencing. Although data may not yet be available to examine the effects of COVID-19 on nursing education, much can be learned by reviewing relevant literature published since the pandemic's onset. This literature review describes changes to nursing education caused by COVID-19, including policy changes, healthcare shifts, regulatory and practice changes, changes to instruction of nursing students, and the personal effects of adapting to these changes felt by students and faculty. This state of nursing may be used as groundwork for interpreting forthcoming data relating to patient care outcomes, new nursing graduate performance, and nurse and faculty burnout. By understanding what has taken place, we may be able to make more informed decisions about which changes to nursing education have added value, and which should revert back to the status quo.

*Keywords:* COVID-19, nursing faculty, nursing student, nursing education

### **The Current State of Nursing Education in the Context of COVID-19**

The Centers for Disease Control and Prevention (CDC, 2021) has counted more than 25.7 million cases and over 400,000 deaths from COVID-19 in the United States. We are in the midst of a pandemic that is the largest and deadliest since the influenza pandemic of 1918. Worldwide, the current numbers are staggering. According to the World Health Organization (WHO), as of January 2021, over 102 million confirmed cases and over 2.2 million deaths have been reported (WHO, 2021).

The effects of the pandemic are global and vast. From social isolation to economic destruction, COVID-19 has taken a toll on populations worldwide. The effects of the pandemic may be most acutely felt within healthcare among frontline workers. The pandemic has brought on shortages of personal protective equipment (PPE), ventilators and other necessary equipment, beds, and hospital staff to care for the rapid influx of patients. Directly adjacent to these frontline workers are the students preparing to join the fray as they graduate from nursing programs in the coming months and years. The pandemic has not left nursing programs, students, or faculty untouched.

Undergraduate nursing programs across the United States have adopted different modalities of instruction to adapt to a changing world within the scope of the pandemic. With the rapid shifts in healthcare facilities reorganizing staff to address patient care needs, new policies aimed at preserving PPE, and the looming danger of working with very ill patients in a hospital setting, clinical education opportunities for nursing students have dwindled. The risk of infection in a classroom setting has led many nursing programs to convert to an online or hybrid format to protect students and faculty. These changes have occurred rapidly and have left huge questions looming: How will the changes in delivery of nursing courses affect the quality of education

current undergraduate nursing students are receiving? How will nursing education be affected long term by these rapid shifts? Although these answers may not be available for years, understanding the ways in which the pandemic has affected nursing programs may help lay the foundation of knowledge necessary to understand our current situation, assist in decision-making if a similar situation arises in the future, and point toward identifying potential areas of future research.

### **Purpose**

The purpose of this study is to provide a picture of the current state of nursing education using a literature review of articles published since the onset of the pandemic. This review will describe the changes to healthcare and nursing education during COVID-19 based on rapidly shifting healthcare facility and public policies, regulatory changes, nursing practice changes, and changes in nursing school pedagogy and instruction modality to promote infection control measures. The personal effects on nursing students and faculty themselves will also be examined within this literature review. Although a global issue, this study will be limited to nursing education in the United States.

This state of nursing education will outline the experiences of current students and faculty in the rapidly changing state of education. It may help identify gaps in education or experiences of nursing graduates as they enter an increasingly complex healthcare system. This state of education will lay the groundwork for relating these changes in nursing education to new graduate performance data as it becomes available in coming years. This study may also provide a basis for future research on the efficacy of these changes in providing students the necessary educational foundation to provide safe practice after graduation. Finally, understanding what

occurred in this pandemic may help decision makers address future issues that could affect nursing education on a similar scale.

### **Significance**

Nursing is an area of professional practice highly regulated by facility policy, state and federal legislation, professional regulatory bodies such as state boards of nursing, and professional organizations which have laid out codes of conduct and ethical guides for nursing practice. These highly organized, interwoven structures behind the profession can mean changes within nursing are slow, methodical, and evidence-based. The COVID-19 pandemic has contributed to rapid, major, and far-reaching changes to the practice of nursing to accommodate emerging needs in healthcare. As the numbers of patients needing critical care surged, global economies stalled and international trade was hindered, resulting in the lack of PPE and equipment. While nurses were needed in higher numbers than ever before, healthcare facilities determined they could not spare the staff or equipment to provide clinical opportunities to current students. Choices had to be made to overcome challenges and continue healthcare operations.

The literature review for this study examines the changes to healthcare caused by the pandemic and the adaptations made to continue to provide patient care. By multiple routes, these adaptations have affected nursing practice, regulation, education, and nurses themselves. Ideally, changes to nursing practice would be measured and based on evidence. However, the rapid onset of the pandemic necessitated quick decisions to overcome real-time obstacles without the luxury of planning or evidence gathering.

Because this is a continually evolving situation and the changes in healthcare operations have been vast within the context of COVID-19, it is necessary to document the state of nursing

practice and education so that a basis exists for future research. As data emerge surrounding the efficacy of in-hospital training programs, new nurse graduate performance, infection rates on the reuse of PPE, and the long-term effects of nurse stress brought on by the pandemic, it will be essential to have a foundation upon which those data can be interpreted. Will these changes result in better or worse outcomes for nurses, patients, educators and students? Should some of the changes made become more permanent or will practice revert to status quo once the danger of the virus has passed? In order to make these decisions, an understanding of what has occurred will be necessary in interpreting forthcoming data. This state of nursing education will provide a piece of that foundational knowledge.

### **Theoretical Framework**

This description of the state of nursing education will be aided by the structure of the Lewin's Change Theory to parse out forces and aspects of change as laid out by the theorist. Though much of his Changing as Three Steps (CATS) theory is considered to have been assembled after his death, Kurt Lewin is considered the founder of change theories (Cummings et al., 2016). He describes change as a real phenomenon happening in three steps: unfreezing, changing or movement, and refreezing (Kritsonis, 2005). Within this framework he examines the forces which drive or restrain change. Much use of this theory has been in analyzing these forces to implement sustainable planned change whether in an individual's health promotion plan or in an institution's operations. In the case of COVID-19, the driving forces for change have been powerful and widespread. Large-scale changes have been quickly implemented to meet the immediate needs of patients and healthcare institutions with far-reaching consequences in education, the economy, and in society in general.



Operations in education and healthcare are still in a state of flux as we continue to operate in pandemic conditions. According to Lewin's change theory, the refreezing is of particular interest in maintaining desired change. If this step is neglected, the theorist posits that the return to status quo is highly likely (Kritsonis, 2005). Because many of the changes in response to COVID-19 were reactionary instead of carefully planned, determining which changes have added value to these institutional operations and which were detrimental will be necessary before planning the refreezing phase.

Data are not yet available for the impact of the changes in nursing education on student performance, board exam pass rates, or new graduate nurse performance because the pandemic is only a year from onset in the United States. This study will provide the basis on which that forthcoming data may be interpreted. This work may allow researchers aid in attributing any potential changes in these upcoming data to the rapid shifts in education and healthcare that have followed the onset of COVID-19 in order to determine which changes have been beneficial or harmful to the education of future nurses.

### **Review of the Literature**

This study is a review of current literature published since the beginning of the COVID-19 pandemic. Journal articles were taken from the Cumulative Index of Nursing and Allied Health Literature (CINAHL) database through the Harley French Health Sciences Library at the University of North Dakota. A literature search was conducted to include all articles pertinent to nursing education changes since the onset of the pandemic. Because nursing education is heavily affected by health systems, informatics, and public policy in the places where the schools are located, articles were limited to those published in the United States.

The first search terms used were “*nursing education*” AND “*COVID-19*” with articles limited to English language, USA region, abstract and full text available. This search was not limited by dates. This yielded 36 results of which 11 were included in this literature review. Most were excluded due to content not pertinent to the scope of this research, including scholarly articles concerning direct care of COVID-19 patients and complications, disparities in health outcomes for COVID-19 patients, and background information on the virus itself. Several were excluded because they were brief updates from nursing newsletters instead of scholarly sources.

A second literature search was conducted using the terms “*nursing student*” AND “*COVID-19*” with articles excluded that were written outside the English Language, outside the USA region, and without abstracts and full texts available. This search yielded 16 results, five of which were duplicates from the first search. Seven of the remaining articles were chosen for inclusion in this literature review. Finally, a search of the terms “*nursing faculty*” AND “*COVID-19*” was completed with the requirements of an abstract and full text available. From this final search, two articles were chosen for inclusion in this research out of the 12 available. Four were duplicate results, and six did not contain content pertinent to this review of nursing education.

### **Review of the Literature**

The literature search for this study returned multiple articles from peer-reviewed journals consisting partially of expert opinions and letters of support from nursing leaders of professional organizations. Reviews of policy changes, whether on a state or regulatory level are included in this literature review. Several case studies from hospitals were also included, in which the changes in operations due to COVID-19 were outlined. Structural changes, shifts in personnel to the intensive care unit (ICU) setting, and educational programs developed to accommodate these shifts were described by the authors of these case studies. Finally, case studies from various

academic institutions were included to outline the rapid shifts in nursing education. Due to the proximity in time to the onset of this pandemic, the literature search turned up no results quantitative studies on the effects of the pandemic on nursing education. As these data become available, this qualitative evidence may be the basis for their interpretation.

The articles chosen from the literature search were broken down into several categories as they apply to changes in nursing education. First, several articles describe the regulatory changes mandated by individual states, healthcare facilities, or professional governing bodies to spur system-wide adjustments to accommodate the surge of COVID-19 patients. When a state-of-emergency is called in the United States, governors are allowed to bypass the legislature in implementing executive actions to address problems with necessary speed (Benton, Alexander, & Fotsch, 2020). In a flurry of activity, "...56 states, commonwealths, territories, and the District of Columbia promulgated a total of 1,618 executive orders and proclamations ranging from 7 to 73 per state" (Benton, Alexander, & Fotsch, 2020, para. 16) by the end of April, 2020. These mandates included stay at home orders, social distancing requirements, regulations on businesses, funding of assistance programs, and changes to healthcare.

Johnson (2020) discussed several specific public policy changes instituted by state governors to address bed, staffing, and PPE shortages. The author mentioned Washington's suspension of elective surgeries that would not cause patient harm if not performed in the next three months. New York's governor mandated the doubling of bed capacity for COVID-19 patients by eliminating elective procedures. In California, the governor signed 10 executive orders in March 2020 to accommodate the patient surges and addressed some of these issues by pleading with patients to cancel their routine medical care in the short term. Similarly, Oregon

canceled or delayed non-emergent surgeries to preserve PPE, reduce transmission, and save beds for critically ill COVID-19 patients (Johnson, 2020).

Several articles described some of the rapid changes occurring in hospitals in response to a surge in the number of admitted, high-acuity patients. These changes not only address the number of beds, but a transition of staff from their regular, non-critical care units to care for patients in an intensive care unit (ICU) setting. Brickman (2020) describes one New York hospital's response to state legislation mandating that hospitals double ICU capacity in all hospitals. A disaster plan transformed surgery centers and medical surgical units into ICUs to expand their bed capacity from 104-283 (p. e105). The authors describe a need to double the number of full time ICU nurses to staff these extra beds, and the educational program that was developed and implemented to train staff nurses who do not typically care for critically ill patients to become ICU nurses. Several similar case studies were included in this literature review.

Additionally, articles covering PPE and equipment shortages were included. The legal and ethical issues surrounding COVID-19 operating adjustments were brought forward by Neil (2020). In order to preserve PPE in a climate of nationwide shortage, many facilities were ignoring manufacturer expiration dates and instructions to dispose of PPE after use. Several professional organizations developed and published guidelines and toolkits for handling these rapid changes in patient care and shortages in equipment and personnel (AHC Media, 2020).

Many healthcare facilities dropped clinical experiences for students to mitigate PPE and staff shortages. Several articles in this literature search addressed the transitions nursing schools made to continue necessary clinical instruction in a way that reduced the transmission risk inherent to large gatherings of people as in a classroom setting. Many nursing schools began

substituting in-person clinical hours with simulation. Others focused on clinical through new technology allowing students to take care of virtual patients. Watties-Daniels (2020) discusses the rapid shift nursing faculty developed to provide students with weekly 12-hour clinical days to replace experiences in a hospital setting. Nurse educators assigned students to virtual patients, assigned literature reviews pertinent to those patients, and required reflective activities to develop clinical reasoning skills. The shutdown of clinical sites affected some other students more dramatically--forcing them to take incomplete grades in the spring of 2020 in hope of completion of their program requirements at a later date (Hopla, 2020). Other programs offered the option of pass/fail grades with special notations about the circumstances of COVID-19 on their transcript (Almost, 2020). Additionally, campus infrastructure changed to limit transmission in many cases. Haugh (2020) wrote about the changes in the Harvey Cushing/John Hay Whitney Medical Library that serves over 22,000 professionals and students within the Yale University and Yale New Haven Hospital communities. With the campus closure, communications around remote resources and services necessitated promotion to reach users to ensure access to recent evidence. To reach the goal of maintaining user access remotely, library staff leaned on partnerships with other university and hospital stakeholders to disseminate information on available resources.

Finally, several articles were included describing the stressors to nurses, nursing faculty, and nursing students in the context of the pandemic, and the pedagogy changes made to address some of these issues. Many frontline nurses resigned over the lack of proper PPE, stating their priorities of family over working in dangerous conditions (Haas, 2020). Some used the phrase “sheep sent to slaughter” (Haas, 2020, p. 233) when describing the working conditions of nurses in the early days of the pandemic. Long shifts, lack of breaks, life and death decisions about

ventilator allocation being made multiple times a day, insufficient hydration and nutrition, and extreme fatigue were hallmarks of frontline nursing practice in the early spring of 2020. Nursing students were affected by disruptions to their education, blurred lines between professional and home environments, and uncertainty as they enter practice in the midst of a pandemic. Similarly, nurse educators also faced unique challenges and stressors during this pandemic. Lockett (2020) describes changes in nursing education contributing to educator stress including the rapid switch to online instruction, concerns about the quality of education being provided to students, and issues of compliance with regulatory organizations.

## **Discussion**

### **Regulatory or Policy Changes**

Several examples of changes to healthcare regulations included loosening restrictions to get more providers into practice. Benton et al. (2020) described orders waiving licensure requirements for advanced practice registered nurses (APRNs), allowing telehealth practice from providers out of state, and waiving physician supervision for Medicaid/Medicare billing for Certified Registered Nurse Anesthetists (CRNAs). Additionally, nine governors suggested final semester nursing students and medical students be released into practice without either completion of their programs or completion of their licensure exams. Other states waived just the licensure exam or background checks for graduate nurses. The Colorado Department of Regulatory Agencies (2020) described similar changes with aides. Temporary licenses were given to Certified Nurse Assistants (CNAs) without completion of clinical hours, and graduate nurses who had not met the program requirements for clinical hours were allowed to substitute volunteer hours under supervision of healthcare professionals or were allowed to work under temporary licenses without fulfilling these requirements.

Although useful for mobilizing nurses into the workforce, these shortcuts put patient safety at risk due to potentially incompetent or even felonious nurses gaining access to patients in a pandemic. Current nurses need to display more competency than ever to adapt to changes in healthcare and patient care (Benton, Alexander, & Fotsch, 2020). Whether these risks are outweighed by the need to quickly transition new professionals to practice remains unknown.

### **Adjustments in Healthcare**

Neil (2020) described a backlog of inpatient discharges that built up in many areas across the nation when long term care facilities refused to accept recently hospitalized patients in an attempt to protect their current residents from COVID-19. Abbreviated hiring practices and crash courses in ICU care for existing staff nurses were also implemented in facilities across the nation to address nurse shortages during the surge of critically ill patients. In one New York Facility, Brickman (2020) described an interdisciplinary team of ICU nurses, nurse educators, administrators and program coordinators, who developed a 3-hour training to include “cardiac, pulmonary, and renal pathophysiology; care paradigms, and therapies and procedures anticipated for use when managing patients with COVID-19” (p. e105). Over a period of 10 days, 413 nurses completed the training to flex to ICUs from their normal departments to accommodate the surge in critically ill patients. No data are yet available to evaluate the effect on patient outcomes or nurse understanding in these training programs developed for the massive shifts in personnel to critical care settings, but the author points toward the fast adoption and the maintenance of operations as initial successes in the training program.

Other trainings have been developed to help reassigned nurses acclimate to their new ICU roles. Cohen (2020) details several educational programs used around the country. For nurse managers, CRNAs, APRNs, and staff nurses from other areas, Mount Sinai Health System

implemented use of Project Florence, an artificial intelligence led, web-based training program to individualize training to reassigned nurses based on their experience. For example, CRNAs need less of a pharmacology review and more of a documentation training since they usually chart in a different version of the electronic health record. This free training program was developed by Sana Labs and is available online. As of mid-May 2020 over 800 people had used the program to supplement educational programs designed by their respective facilities (Cohen, 2020). In addition to in-house programs, hospitals have deployed online trainings from known nursing education programs like Wolters Kluwer, and many facilities have included all staff, including “dietary, housekeeping, and laundry services staff” (Cohen, 2020, p. 26) in their efforts to provide needed education to prevent transmission. No data are currently available to evaluate the effectiveness of these programs.

In addition to the major shifts in personnel among hospital staff, the delay of routine medical care, and the cancellation of non-urgent or emergent procedures, PPE use changed drastically in the first months of the pandemic. Facility policies were created to address this shortage by ignoring manufacturer guidelines to abide by expiration dates, to dispose of items after one use, and not to sanitize and reuse PPE. For nurses who want to both provide patient care and protect themselves and their families, following these new facility guidelines created unease. How do nurses act against years of training on proper PPE use, putting themselves and their patients at risk? Neil (2020) argued that all of these changes which potentially provide patients with more poor-quality care may put hospitals legally at risk for malpractice, though few solutions are suggested except using what we know now to prepare for upcoming crises.

Thankfully, several professional organizations have assembled toolkits to guide these decisions based on the best evidence available at the current time. AHC Media (2020) outlined a



toolkit prepared by the Association of Perioperative Registered Nurses (AORN) to guide decisions about scheduling or postponing surgeries, reassigning staff, and conserving use of PPE based on the most current CDC recommendations. Their culminating piece of advice: “Do what we do best: Remain calm, and take care of the problem” (AHC Media, 2020, p. 2).

### **Nursing Education Changes**

To address staff and PPE shortages, many clinical sites dropped nursing student experiences in the early months of the pandemic. As a result, nursing schools throughout the nation began making substantial changes both to the curricula and to the modality of instruction. Clinical instruction now needed to be completed without the partnerships of teaching hospitals or other clinical agencies that had been long-standing institutions for many of these programs. For both didactic instruction and clinical experiences, students transitioned to online learning through virtual learning environments, online lectures, and online simulations. Challenges to this transition to virtual nursing instruction were outlined by Leite Funchal Camacho (2020). These challenges include student access to internet and technology at home, the planning required to develop online activities to promote student learning, the loss of personal interaction between teacher and student, the need for constant faculty education on technological resources, and attitudinal challenges among faculty in adopting new modalities of teaching.

Not all of these changes were poorly received. In describing the shift to online instruction from in-hospital clinicals, Watties-Daniels (2020) stated students reacted positively to the changes in clinical sessions and faculty generally participated in developing best practices in virtual clinical learning. Moore (2020), the Florida Nursing Students Association president in the spring of 2020, expressed that many of the changes to virtual instruction such as the pre-recording of lectures to watch asynchronously from remote locations, was well received by

students. Other changes, especially those concerning clinical learning and the shift to virtual clinical experiences, were met with much anxiety about the quality of learning students would be gaining. This anxiety may not be misplaced. No data are available to evaluate these large-scale transitions to virtual instruction in the context of the pandemic, and data are limited in general when addressing the replacement of clinical education in a hospital setting. Some emergency orders by individual state boards of nursing (BONs) adjusted simulation caps to substitute for clinical hours and allow for student completion of nursing programs, but no evidence exists for student outcomes regarding simulation hours exceeding 50% of total clinical experiences (Benton, Alexander, & Fotsch, 2020).

Several nurse educators have sounded the call for inclusion of special topics related to changes in healthcare during the pandemic. LaComb-Williams (2020) discussed the importance of teaching disaster management in nursing curricula, with an emphasis on populations at higher risk of health disparities including those with disabilities who may have more difficulty accessing services, shelters, or unbiased care in the midst of a pandemic. Others have focused on the needs of nurses themselves. Larkin and Loughran (2020) promoted the humanization of synchronous classes by using cameras when possible and offered private sessions for students with discomfort around telling their stories to large online groups. As part of their holistic nursing background, these instructors also created learning modules on different modalities of stress-reduction including guided imagery, meditation, therapeutic touch, music, and progressive relaxation. Feedback was taken from students, who reported lower stress levels after the use of these modalities. The authors promote the use of these techniques in nursing education to develop resilience among nursing students and nurses to decrease compassion fatigue, burnout, and stress. This education on self-care among nurses may be more important than ever.

### **Mental Health Effects of COVID-19 on Nurses, Nurse Educators, and Nursing Students**

In 2020, the international Year of the Nurse and Midwife, frontline nurses have expressed many concerns over the issues related to patient care during COVID-19. Burdick, (2020) laid out the suffering that follows a global health crisis like the pandemic. Nurses on the frontlines feel powerless to impact their patients due to poor nurse/patient ratios, staffing issues, and PPE and equipment shortages. Those who aren't directly taking care of COVID-19 patients may feel powerless while being present for their other dying patients, who now experience their last days without visitors due to hospital restrictions. Nurses are afraid of bringing illness home to their families, and struggle with work-life balance when there are so many needs at work. Many nurses have developed Post-Traumatic Stress Disorder (PTSD) from their proximity to trauma during this pandemic (Burdick, 2020). Nurses who are tuned in will also notice widening disparities among groups with already poorer health outcomes. Those with disabilities or preexisting conditions, those in poverty or experiencing homelessness, and those of racial or ethnic minorities have been unequally affected by the COVID-19 pandemic (Twardzik, Williams, & Meshesha 2021). Watching these disparities widen real-time can lead to distress among nurses, contributing to compassion fatigue and burnout.

Benton, Alexander, and Fotsch (2020) discuss some of the other underlying anxieties for practicing nurses in the wake of COVID-19. In an environment of high risk of transmission with PPE shortages, staff shortages and training gaps, nurses often struggle with whether they can refuse an assignment to protect their patients and themselves. Under normal circumstances, this is an expectation of nurses—to recognize when an assignment is dangerous, patient safety is at risk, or the nurse is jeopardizing the integrity of his/her practice by some limitation of the ability to provide quality patient care. It's understandable that anxiety arises whenever nurses are put

between duty to care for patients and the sweeping aside of normal practice due to patient surge or lack of resources.

Nurses in direct patient care settings aren't the only ones feeling stressed. A long-standing nurse educator shortage; the need to maintain clinical competence; and increasing expectations of teaching, service, and scholarship had been contributing to nursing faculty burnout before the pandemic (Luckett, 2020). The symptoms of burnout may include "increased frustration, decreased productivity, and feelings of being overworked and emotionally drained...undereating, hypersomnia or insomnia, and gastrointestinal symptoms" (Luckett, 2020, p. 96). In the context of the COVID-19 pandemic, these primary work stressors are heightened by secondary stressors of diminished ability to maintain work/life balance, increased responsibilities at home with closures of schools or childcare facilities, and potential financial stress brought on by economic changes. The swift transition to online modalities of instruction placed a huge burden on nurse educators as an estimated 70% of nursing faculty had never taught online before this change.

Though sometimes praised for their courage, passion, and positivity (Amendola, 2020), nursing students face unique challenges as they enter practice during the pandemic. Disruptions to their education and the extreme circumstances in which they'll be thrust into practice will affect the transition from student to nurse, which can be a difficult experience under normal circumstances. Furthermore, just as the lines have been blurred between professional and home environments for nurse educators, students also struggle with the lack of boundaries between school and home (Elliott, 2020). With campus closures and online-only instruction, many struggle with the challenges of living and working within one dual-purposed space.

### **Conclusion**

Virtually no area of nursing practice or education was left unaltered during the COVID-19 pandemic. In order to accommodate rising numbers of critically ill patients with limited staff, beds, and equipment, quick decisions were made to continue hospital operations to prioritize the provision of patient care. These quick decisions were far-reaching including policies allowing early entry into practice for new healthcare workers, the waiver of licensure requirements or background checks, rapid shifts in personnel to critical care areas, reuse of PPE, and the development of guidelines for resource allocation in patient care settings. Nurses, nursing students, and nurse educators were all heavily affected by the quick decisions made during the early months of the pandemic. At this time, more research is needed to examine the effects of these changes on patient care outcomes, the profession of nursing, and nursing education. As these data become available, they should be compared to the foundation of knowledge of the circumstances under which healthcare and nursing functioned in the context of COVID-19.

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