RESEARCH ARTICLE

"All of this was awful:" Exploring the experience of nurses caring for patients with COVID-19 in the United States

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Abstract

Introduction: Little research documents the experience of nurses caring for patients with COVID-19 in the United States. This article explores the experience of nurses providing direct care to COVID-19 patients to understand the working conditions and emotional impact of working in this pandemic on nurses.

Methods: Data were gathered through an online survey distributed via snowball sampling in July 2020. The survey included an open-ended question asking nurses to describe a personal experience providing care to a COVID-19 patient. Researchers analyzed 118 responses using content analysis.

Results: The experience of nurses providing care to patients with COVID-19 was summarized into six themes: (1) feeling overwhelmed with the quantity of work (33.1%), (2) patient death (30.5%), (3) helplessness (23.7%), (4) absence of patient family presence and need for additional support (22.9%), (5) personal protective equipment (PPE) concerns regarding safety and how PPE can impair the nursing role (20.3%), and (6) lack of preparedness for the pandemic (16.9%).

Conclusions: These findings suggest working directly with COVID-19 patients is a significant psychological strain on nurses. Adequate personal and institutional support for nurses is needed to prevent and treat mental distress from working under these conditions.

KEYWORDS

content analysis, COVID-19, nursing, SARS-CoV-2, United States

1 | INTRODUCTION

The SARS-CoV-2 (COVID-19) pandemic has placed unrelenting pressure on healthcare systems as nearly 160 million people worldwide have become infected with the virus.¹ COVID-19 has caused an unprecedented number of hospitalizations and deaths in the United States, increasing nurses' physical and emotional workloads. Nurses juggle many responsibilities, including caring for patients with varying needs, working with interprofessional team members, and addressing families' requests to help patients achieve the best outcomes. While working during the pandemic, nurses and other healthcare providers are at risk of developing psychological distress.² Psychiatric professionals warn about the potential devastation of the COVID-19 pandemic on healthcare providers' mental health.³ Accordingly, research examining the mental health sequelae of COVID-19 in China suggests that healthcare workers caring for patients with COVID-19 experienced elevated depression, anxiety, insomnia, and psychological distress, particularly among workers in hard-hit communities.⁴

Due to the highly infectious nature of the COVID-19 virus, caring for patients with COVID-19 presents a potentially life-threatening risk to nurses' health particularly before the distribution of vaccines. Nurses are at risk of transmitting the virus to others, including friends

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or family, and consistent access to adequate personal protective equipment (PPE) is elusive.⁵ In the spring of 2020, nursing-related professions were the highest percentage of healthcare workers hospitalized with COVID-19 (36.3%).⁶

Several studies have explored the impact of COVID-19 on nurses and other healthcare workers around the world.^{4,7–14} Many nurses reported feeling unprepared for the demands of nursing during a pandemic. A study of nurses in Spain found that nurses caring for COVID-19 patients reported not having the skills needed to care for their assigned patients and heavy workloads.¹¹ The reporting of challenging patient assignments was echoed in a study by Bruyneel and colleagues,⁹ which found patients with COVID-19 in an ICU setting required almost one-to-one nursing care. Likewise, nurses in China reported working more hours with a heavier workload due to the pandemic.¹⁴

Globally, there are concerns about risky work conditions. Many nurses report a desire to help during these stressful times and are willing to care for patients with COVID-19, but most also report concern about transmitting the virus to their families.¹² Fear of virus transmission was also emphasized in other publications.^{11,14} Despite the United States having the highest number of reported cases and deaths globally from COVID-19,¹⁵ few published studies were found describing nurses' experiences in the United States during the COVID-19 pandemic.

The demands of this global health crisis have the potential to create a lasting effect on the nursing workforce, and there is mounting evidence that working in the COVID-19 pandemic affects nurses and other healthcare workers' mental health. Studies of healthcare workers in several countries report that providers, including nurses, experience symptoms of exhaustion, anxiety, stress, depression, and posttraumatic stress related to the pandemic.^{4,7,8,10,10,13,16} In particular, nurses may be more likely to report higher levels of anxiety, stress, and depression during the pandemic than the general population.¹³ Nurses providing direct care to patients with COVID-19 may be at particular risk for developing worsened mental health outcomes.¹¹ Add to this that women are more likely to report higher levels of mental health symptoms than men, and women make up 91% of the nursing workforce.^{7,17} Nurses' mental health should be a primary concern for nursing administrators and managers as the pandemic continues.¹⁸

2 | METHOD

This paper aims to explore the experiences of nurses who reported caring for patients with COVID-19 in the United States. This research is part of a more extensive cross-sectional study that examined the nursing experience during the COVID-19 pandemic using mixed methods and convergent data collection. The qualitative descriptive data are the focus of this paper. Data were collected through an online survey of nurses, including demographics, screening measures of mental health outcomes, and open-ended questions.¹⁹ After obtaining approval from the University IRB, the survey was distributed in July 2020 through snowball sampling using social media and posting a survey link to the American Association of Critical Care Nurses *Participate in Research Studies* webpage. The survey remained open for responses for 3 weeks. Completion of the survey implied consent. Participants elected to enter an email address for a raffle for one \$100.00 gift card as an incentive for participation. Email addresses were not connected with survey responses, and responses were anonymous. In addition, links for mental health services and crisis support were provided at the end of the survey.

For this paper, we analyzed qualitative responses gathered from an open-ended question.¹⁹ The item that asked nurses to: "Please share a personal experience with a COVID patient, including the circumstances surrounding the event." The purpose of asking nurses to describe a patient encounter was to understand the nursing experience of caring for patients during the COVID-19 pandemic in the United States.

Data were analyzed using content analysis, which can be used to examine themes in written material.²⁰ Two researchers, a nurse and a clinical psychologist, analyzed the data independently. First, researchers read the written statements several times to gain an overall understanding of the nursing experience of caring for patients with COVID-19. Next, the researchers highlighted significant statements describing the nursing experience. Then, researchers coded these meaningful statements into themes. Triangulation was used to enhance the study's validity; a third researcher reviewed the statements and coded themes.¹⁹ The three authors discussed and agreed on the themes and statements that fit into each theme, capturing the nursing experience's essence during COVID-19. Rich descriptions by participants are provided to further enhance validity and allow for decisions on transferability to other settings.²¹

3 | PARTICIPANTS

A total of 229 nurses responded to the overall survey, 118 of which responded to the open-ended question (51.5%). The average age of nurses writing a qualitative response was 41 years, with 14 years of nursing experience. Similar to the population of nurses in the United States, our sample was 94% female.¹⁷ Participants were nurses caring for patients during the pandemic from different nursing specialties. Most reported working full time as staff nurses (75.4%) an average of 38.4 h per week. Descriptive information from those sharing a personal experience with a COVID patient is summarized in Table 1.

4 | RESULTS

The content analysis identified six themes: (1) feeling overwhelmed with the quantity of work, (2) patient death, (3) helplessness, (4) absence of patient family presence and need for additional support, (5) PPE concerns regarding safety and how PPE can impair the KELLOGG ET AL.

TABLE 1 Descriptive information of participants

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Variable	М	SD
Age (n = 118)	40.67	12.6
Years of nursing experience (n = 118)	14.7	12.5
Hours worked per week (n = 117)	38.4	8.9
Variable	n	%
Gender (<i>n</i> = 118)		
Male	7	5.9
Female	111	94.1
Race (n = 117)		
White	115	98.3
Asian	1	0.8
Other	1	0.8
Ethnicity		
Mexican, Hispanic, or Latino	7	5.9
Not Mexican, Hispanic, or Latino	110	93.2
United state region (n = 118)		
Northeast	68	57.6
Midwest	8	6.8
South	21	17.8
West	19	16.1
Other	2	1.7
Nurse education (n = 118)		
Diploma	6	5.1
Associate's	12	10.2
Bachelor's	75	63.6
Master's	21	17.8
Doctorate	4	3.4
Current primary position (n = 118)		
Staff nurse	89	75.4
Nurse manager/coordinator	11	9.3
Clinical nurse specialist	2	1.7
Nurse practitioner	1	0.8
Case manager	3	2.5
Other	12	10.2
Access to adequate PPE while caring for patients with suspected or confirmed COVID-19 (n = 118)		
Yes	70	59.3
No	48	40.7
Cared for patients with suspected or confirmed COVID-19 (n = 118)		

COVID-19 (n = 118) Yes 70 59.3

(Continues)

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TABLE 1 (Continued)

Variable	n	%
No	48	40.7
Tested positive for COVID-19 (n = 118)		
Yes	7	5.9
No	111	94.1

Abbreviation: PPE, personal protective equipment.

TABLE 2 Occurrence of themes identified

Theme	n (%)
Feeling overwhelmed with the quantity of work or workload	39 (33.1%)
Patient death	36 (30.5%)
Helplessness	28 (23.7%)
Absence of patient family presence and need for additional support	27 (22.9%)
Personal protective equipment (PPE) concerns regarding safety and how PPE impairs the nursing role	24 (20.3%)
Lack of preparedness for the pandemic	20 (16.9%)

nursing role, and (6) lack of preparedness for the pandemic. Further analysis was conducted through counting (numbers [*n*] and percentages [%]) concerning nursing during the COVID-19 pandemic. See Table 2 for the occurrence and the percentage of each theme identified.

5 | THEME 1. OVERWHELMED WITH THE QUANTITY OF WORK OR WORKLOAD

The most frequent theme noted in one-third (33%) of the written responses by nurses was the feeling of being overwhelmed with the quantity of work or workload during the beginning of the COVID-19 pandemic: "They were so sick; it took every ounce of energy to keep them alive." One nurse wrote: "Oftentimes, I'd have to stay late or come in early to shifts when we were understaffed, and then come back in the following night." Another stated:

Working ten weeks in the ICU, caring for COVID-19 patients was an experience that I hope I will not have to repeat. There were many sleepless nights, worries about catching the virus or giving it to my husband. At times, you feel alone because you are so tired, mentally and physically.

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One respondent explained that nurses were often completing the professional roles of other health science professionals during this time: "We have five patients total, no lab, barely respiratory therapy... no CNA, no housekeeping, no dietary; you're it. I was so scared."

6 | THEME 2. PATIENT DEATH

The frequency and intensity of COVID-19-related deaths also affected nurses and was the second theme found in 30.5% of the responses. Several nurses disclosed that COVID patients they cared for, even young patients, were rapidly dying and often were alone at their time of death. Twenty-one percent of the responses mentioned patient death: "I had a patient that was doing OK, sick, but OK. COVID positive. Around 5 pm, sitting up, eating dinner, being assisted by a CNA. At 9 pm, he went into respiratory distress, and by 9:30 pm, he was dead."

Another nurse told a similar story of rapid decline:

I am an acute hemodialysis nurse, and I had been picking up time in different ICUs in different hospitals. There were many renal failure patients in this ICU, and one by one, they coded and died. The last one was on dialysis when he coded. He was the only one not sedated and was on BIPAP (Bilevel Positive Airway Pressure) ... He was 77 years old and all alone. I believe that he may have disconnected his BIPAP on his own. It haunts me that he was all alone when he died. I saw his heart rate going down, and I called a code. I had just gotten him a warm blanket not 15 minutes earlier. His ICU nurse was an older OR nurse who was overwhelmed and who didn't want to go into his room for alarms. She had not been in his room for three hours by the time he coded. I know that these seriously ill patients will most likely not live, but the fact that they are so alone is the saddest part.

One nurse wrote about increasing her own risk to prevent a patient from dying alone:

I remember the first COVID death I witnessed. We had extubated the patient knowing he would not make it; everybody exited the room. I looked at the poor man all alone and sat down next to him; the lead physician said, get out of the room now. You're needlessly exposing yourself to harm. I looked at the man and looked at the physician, and said, I disagree. There's nowhere else I need to be more than right here, and I stayed with him till he died. What an honor.

Patients dying alone was challenging emotionally for nurses. As one nurse stated: "I had a patient die alone. I could see it was starting to happen, but I couldn't get geared up fast enough to be there when it happened for him. I hate that he was alone."

Nurses reported emotional distress from bearing witness to their patients' deaths, as a nurse explained:

I worked closely with a COVID patient who was acutely ill in the ICU. He was intubated on a ventilator and had liver failure. He was bleeding excessively from his IJ (internal jugular), and we were running units of blood into him to prevent hemorrhagic shock. He was made comfort measures only the next day, and I helped manage the comfort meds as he passed. His family didn't want to see him pass away over the iPad because they wanted to remember him as he was. I had a nightmare about the experience that night. I dreamed that the man was bleeding and coding and that I was trying to resuscitate him by myself. I kept calling for help, but the other staff members just stood there and watched me as I tried. That was the only real nightmare I had throughout my experience working in the COVID ICU.

7 | THEME 3. HELPLESSNESS

Nurses caring for patients with COVID-19 frequently reported feeling a sense of helplessness, the third theme observed in just under a quarter of the responses. They expressed wanting to do more to help their patients and described how it was often beyond their control to change the virus's rapid, fatal course or the conditions for patients as a result of it. One nurse indicated, "I've pretty much tried to block them all out. We've only had two patients get off the vent. Nearly everyone has died."

Another nurse stated:

It was 2 to 3 shifts in a row when the same thing would happen to different patients. Patients would suddenly require the max amount of oxygen. Then would come back next shift, and there was no major plan to help them, just keep them on the max and hope for the best.

One nurse told the story of one patient's losing battle with the virus:

Home hospice wasn't even given to them as an option. He has completed all of his doses of remdesivir. His O2 sats drop to 78-80's when you move him while cleaning him, but they resume to 90-95% at rest on 6 liters nasal cannula. I informed the internist over the COVID unit assigned to this patient, but no aggressive measures were taken. We all know we are fighting a defeated battle.

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The nurses' connection between patients and families also impacted nurses' sense of helplessness. Another nurse articulated feelings of helplessness related to caring for a patient:

> My first COVID pt. a young male, two days prior, looked at me crying, begging us not to let him go out like "this" as we were preparing to intubate. He had young kids who would visit him from outside, so they made him two signs, one each saying something along the lines of "get better" and "come home" I taped them to the window so they would know what window was his. I'll never forget sitting at the desk charting when this heart started to brady down. By the time we gowned up and started compressions, all I can remember is looking at the two pictures in the window. For 68 minutes, I looked at those pictures, and for the first time in my career, I felt like I have failed on every platform possible. I have lost other patients prior to and after this particular patient. It comes with the job. Yes, I'm sad, but I don't let it get the best of me. But this one, to this day, I think about constantly and rethink the events that led up to the code.

As one nurse said, "It is so scary to watch them struggle to breathe and not be able to help them."

One nurse summed up the sense of helplessness described by many others:

I remember just how horrid it was that patients would die alone. I've worked in ICU before, and so death, to me, is part of life. Dying is what bothered me. It was the lack of family support and presence that bothered me the most. We were even discouraged from spending anything more than the bare minimum time with the patient so as to limit our exposure. It was not being able to truly talk to intubated patients because you had all this gear on. It was the horrible feeling of not turning patients every two hours, not bathing daily, not providing the most optimal care to hold onto the smallest amount of self-preservation. It was having to reuse PPE and never quite feeling protected myself against COVID. All of this was awful. I remember thinking, "WE are killing these people. NOT COVID."

7.1 | Theme 4. absence of patient family presence and need for additional support

Nurses were significantly impacted by the lack of family support and presence as many hospitals restricted patient visitors to help stop the virus's spread. This theme was written in 27 responses (22.9%). While caring for COVID-19 patients, nurses struggled to provide support and often felt compelled to fill the family's void at the bedside. As one nurse stated, "It is a lot emotionally to be nurse, family, and clergy for

patients." Nurses experienced sadness and distress related to the lack of family support for their patients, as evidenced by the following response:

> I was floated to an ICU. I had previous critical care experience. Seeing critically ill patients was not a shock to me, but I was very sad for the patients and their families not being able to physically see each other. I just tried to reassure the patients that their loved ones were there in spirit and to think of us as an extension of their family.

The lack of family support was frequently an additional emotional stressor for nurses.

> When I was cross-trained in the ICU, there was a man who was vented and really sick, he had all kinds of sports things around him and lots of pictures of his family, and it made me sad that he was alone and updating his family was heartbreaking.

Furthermore, nurses had additional responsibilities to use technology such as smartphones or tablets to allow patients to see their loved ones, provide updates to family, or facilitate goodbyes as patients came close to the end of life. Several responses mentioned that nurse use of technology was the link between patients and their families. One nurse responded, "I have held many frightened hands, used my phone to FaceTime family of nursing home patients who have not seen a loved one in months." In addition, nurses often had to juggle their responsibilities in critical patient care situations to notify family using technology. For example, a respondent stated:

> A patient of mine passed away very quickly, and I had to FaceTime his wife and showed her the deceased body while she talked to him (he was already passed) for 15 minutes. She was very angry and sad at the situation. We lost 60 residents from COVID. The families couldn't see their loved ones or say goodbye. It was heartbreaking.

7.2 | Theme 5. PPE concerns regarding safety and how PPE can impair the nursing role

PPE impacted nurses and the nursing role. PPE was mentioned in 20% of the written responses. Numerous nurses expressed fear that limited PPE and changing requirements would increase the likelihood of contracting COVID-19 or spreading the virus to their families. Due to the limited supply and inconsistent availability of PPE, some nurses began to question their safety: "Our PPE is starting to run out, and I do not feel safe caring for COVID patients." Another nurse said, "We had PPE but were wearing our surgical masks for several days, and N95s were being saved in bags and reused." Reusing PPE left nurses feeling at risk: WILEY-FORUM AN INDEPENDENT VOICE FOR NURSING

When the pandemic started, my hospital was not stocking proper PPE. We were just told that negative pressure rooms would take the COVID patients... Our hospital did not end up improving on the PPE situation much. I was given a Betty Crocker Tupperware container for my N95 mask, which was never cleaned. We were advised to use these masks for multiple shifts. We were given one gown for a full weekend of shifts. This gown was used for both positive COVIDs and PUIs (patients under investigation).

In addition to the supply issues and associated risk, nurses reported efforts to conserve PPE also obstructed patient care:

No doctors, no NPs, no PT, no OT... just RN to save PPE... we get five gowns a day for five patients; I had four (COVID-19) positive, one pending. How does that work with med passes, respiratory treatments, meals, lab draws?

Recommended PPE while caring for COVID-19 patients includes a facemask, N95 mask, eye protection, gloves, and a disposable gown.²² Wearing all of this equipment is hot, and nurses found it more challenging to stay sharp and perform their duties: "I was sweating in my PPE and getting light-headed often from wearing the N95 masks." Another nurse explained sweating was related to PPE:

(The) patient was sent home still sick with a fever and coughing. His air conditioning had gone out in his home, and he was using a portable air conditioner. It was over 100 outside. I sent him back to the hospital, and by the time I got outside and took my gear off, I looked like I had been swimming. I am a home health nurse.

Furthermore, nurses indicated the use of PPE interfered with their ability to connect with the patient and caused delays in addressing patients' needs, influencing the quality of patient care:

> The patient that sticks out in my mind is someone who was on a hi-flow (oxygen) and borderline getting intubated... He was so scared during the time I had him. I tried to comfort him, but of course, it didn't help. I was in full PPE, and his family wasn't allowed to visit.

Nurses also felt that time required for donning the necessary PPE decreased patient safety:

Sometimes it was scary because a patient would try to get out of bed, and you did not want them to fall, but you wanted to protect yourself, so you had to put all of your proper PPE on, which takes several minutes. One nurse voiced the time it takes to put on the protective equipment could mean the difference between life and death for patients:

> Donning and doffing all the PPE is what I struggle with the most. Losing precious time when a patient needs CPR, and everyone has to gown up. I know that it's necessary, but when you see it day in and day out, it is disturbing.

One nurse succinctly stated how PPE affects the nurse and potentially the patient while working during the pandemic, saying: "The stress is high, I'm terrified I'll make a mistake in PPE, and I'll get COVID, or I'll be too busy to notice the small changes in COVID patients, and they will tank."

8 | THEME 6. LACK OF PREPAREDNESS FOR THE PANDEMIC

Twenty nurses (17%) voiced the notable lack of preparedness for the pandemic, which was labeled on several levels, including specific units, hospitals, and the country:

We all worried (about) how extensive our shortcomings were with language barriers, inexperience, lack of resources, etc. The patient was just the unfortunate combination of hoping we were doing enough, knowing we could have done better in different situations. It is a horrifying feeling to live through for months at a time.

Another nurse wrote:

The nurse assigned to the patient was part of the float pool. The rest of the nurses in the room were Medical Emergency Team members. There was not a single nurse who actually worked on the floor in the room with us. The patient was pronounced, and we needed information on how to do COVID postmortem care. No one knew. The charge nurse had no direction. We thought to call the ICU, who was able to advise us.

One nurse described helplessness when working as a volunteer in a homeless shelter for COVID positive individuals:

The large hospital in my city deemed them stable, so they were not admitted; however, these were patients with respiratory compromise, extreme hypertension (238/150 was one of my patient's BP), with coexisting substance use disorder on multiple psych and treatments for opioid use disorder. These were not stable patients. They had nowhere to go. Watching them sleep in army cots in a high school because our city, our state, and our country had failed them, failed to give them a decent place to live outside of COVID, let alone during a pandemic, gave me nightmares. I didn't want to see friends or loved ones. Some shifts, I was the only RN with one provider and over 40 COVID patients. Wondering if they would be OK. Watching them in alcohol withdrawal while also battling COVID. Fevers over 103. These patients were not stable. Our country was just too overwhelmed and not prepared. These patients were my age, my mom's age- no showers for weeks. We tried our best. We got food donated and tried to give them a decent place to recuperate with dignity. But I felt like I failed them, like there wasn't enough I could do for them.

9 | DISCUSSION

This study addresses a gap in the literature by exploring the work experiences of US nurses caring for patients with COVID-19.¹¹ The six themes illustrate the challenges nurses faced working during the first 5 months of the pandemic and depict strain, powerlessness, and fatigue in nurses raising concerns for the mental health of nurses. Hospitals were unprepared for the surge of patients brought on by the COVID-19 pandemic. Heavy workloads, shifting medical recommendations, and uncertainty were characteristics of the healthcare setting at this time. These findings may have significant implications for the profession of nursing.

Challenging workloads were faced by nurses caring for COVID-19 patients have been reported in other studies.^{9,11} Our findings offer additional support that the unique demands of providing direct care to COVID-91 patients contribute to a heavier workload. This work's nature may contribute to nurses' poor mental health sequelae related to the pandemic, including feelings of helplessness, stress, sadness, and anxiety. The visiting restrictions imposed by hospitals bothered nurses and further increased nursing workloads. Nurses voiced the need to provide support to their patients typically offered by loved ones, increasing their workload.

Many nurses working with COVID-19 patients were impacted by the quantity and quality of virus-related deaths. The described working conditions of nurses providing direct COVID care were intertwined with death and the associated emotional distress of bearing witness to frequent, intense loss outside of one's control. This finding concerns the mental health of nurses as critical illness, resuscitation, and sudden or traumatic death are related to increased stress symptoms in nurses.²³ Patient death is often interpreted as a traumatic experience for nurses, contributing to stress and other psychiatric symptoms.²⁴ These traumatic situations could lead to acute stress disorder, posttraumatic stress disorder, or secondary traumatic stress symptoms in nurses.²⁵ Literature examining experience with this virus in mainland China suggests increased training for NURSING AN INDEPENDENT VOICE FOR NURSING-WILFY

Nurses working with patients with COVID-19 felt helpless, unprepared, and overwhelmed. The patient conditions described appeared to have an insatiable demand for nurse care, which impacted nurses' well-being. Caregivers, including nurses, are often motivated by their desire to help others, a drive which has been shown to have higher levels of burnout and other physical symptoms such as unpleasant self-perceptions and negative emotions.²⁸ Therefore, nurses may be more prone to feelings of powerlessness or psychological distress due to their working conditions caring for patients suffering from COVID-19.

Many nurses were concerned about their protection from COVID-19, either contracting the virus themselves or spreading the virus to those around them; this worry added to the potential for psychological symptoms. Early in the pandemic, PPE shortages prompted inconsistencies in the availability and quality of PPE.⁵ This study highlights the connection between conditions around PPE and nurses' mental health. These findings are consistent with the emerging research that finds nurses without consistent PPE access are likely to report symptoms of anxiety, depression, and posttraumatic stress disorder.^{13,29}

Findings from this study indicate that symptoms of sadness, stress, exhaustion, and anxiety are high for nurses caring for COVID-19 patients in the United States and raise a concern about the nurse's well-being in the short and long term. Mental health prevention and intervention strategies for nurses are needed to cope with the perilous working conditions of the COVID-19 pandemic.³ A study in South-East Asia found nurses with higher organizational and social support had fewer anxiety symptoms related to COVID-19.³⁰ Support strategies may be implemented to promote the psychological adjustment and recovery of nurses working under these conditions. For example, Sun and colleagues¹⁴ found nurses working during the pandemic who utilized value-based cognitive strategies and had adequate social support fostered growth from their experiences working with COVID-19 patients. Resilience may offer another pathway to adaptive adjustment and is linked to lower anxiety in nurses caring for patients with COVID-19.30 Building resilience in nurses may help prevent resulting mental health sequelae, such as symptoms of posttraumatic stress, secondary traumatic stress, anxiety, and depression. Additionally, resilience in nurses is essential to strengthen the workforce and ensure high-quality nursing care.³¹

Administrators must ensure that nurses have adequate access to personal and organizational support to help nurses cope adaptively with increased instrumental and emotional demands caused by the pandemic. Nursing implications include providing appropriate resources for nurses' wellbeing, educating nurses about the need for adequate support, and self-care and preventing severe distress. Nurse educators should work to build resilience in nursing students. Further research is needed to develop appropriate interventions to help nurses cope during and after the pandemic, which may prevent nurses from leaving the VILEY-NURSING AN INDEPENDENT VOICE FOR NURSING

profession. It is important to support nurses' mental wellbeing as work related stress in nursing is not limited to a pandemic. 32

10 | LIMITATIONS

The results of this study should be interpreted within the context of the following limitations. First, the qualitative data were gathered using an online method where nurses wrote their responses to an open-ended question. Data could have been enhanced through interviews with nurses caring for patients with COVID-19. However, written responses were an efficient way to explore the phenomenon, as nurses may not have been willing (or able) to take the time to participate in in-depth interviews given their increased workload during the pandemic. Second, nurses who were more impacted by COVID-19 may be more likely to write a response. Third, the question asking about the experience of caring for patients during the pandemic was placed at the end of a survey exploring nurses' wellbeing and mental health. Therefore, participants may have chosen to stop the survey after completing the quantitative part rather than write a response. However, it should be noted that over half of the respondents did answer the open-item question. The aim of this study was not to provide generalizable conclusions but instead to understand the experiences of nurses during the COVID-19 pandemic and gain an understanding of appropriate interventions to help promote nurse wellbeing.

11 | CONCLUSION

The themes that emerged in this study illustrate nurses' experience and challenges caring for patients with COVID-19. These findings suggest that factors associated with these working conditions contribute to nurses' emotional distress and psychological sequelae. There is a need for adequate personal and institutional support for nurses to prevent and cope with distress from providing care during and after the pandemic. Particular attention must be paid to the mental health of nurses who have provided direct care to patients with COVID-19; addressing nurses' mental health is vital to the health of patients and the community.

DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

REFERENCES

- World Health Organization. WHO Coronavirus Disease Dashboard. WHO Coronavirus Disease Dashboard. Published December 27, 2020. Accessed December 27, 2020. https://covid19.who.int/info
- American Medical Association (AMA). Managing mental health during COVID-19. Managing mental health during COVID-19. Published April 24, 2020. https://www.ama-assn.org/deliveringcare/public-health/managing-mental-health-during-covid-19

- Reger MA, Stanley IH, Joiner TE. Suicide mortality and coronavirus disease 2019–a perfect storm? JAMA Psychiatry. 2020;77(11): 1093-1094. https://doi.org/10.1001/jamapsychiatry.2020.1060
- Lai J, Ma S, Wang Y, et al. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. JAMA Netw Open. 2020;3(3):e203976. https://doi.org/ 10.1001/jamanetworkopen.2020.3976
- Cohen J, Rodgers Y, van der M. Contributing factors to personal protective equipment shortages during the COVID-19 pandemic. *Prev Med.* 2020;141:106263. https://doi.org/10.1016/j.ypmed. 2020.106263
- Kambhampati AK. COVID-19-associated hospitalizations among health care personnel–COVID-NET, 13 States, March 1–May 31, 2020. MMWR Morb Mortal Wkly Rep. 2020;69:1576-1583. https:// doi.org/10.15585/mmwr.mm6943e3
- Arafa A, Mohammed Z, Mahmoud O, Elshazley M, Ewis A. Depressed, anxious, and stressed: What have healthcare workers on the frontlines in Egypt and Saudi Arabia experienced during the COVID-19 pandemic? J Affect Disord. 2021;278:365-371. https://doi.org/10.1016/j.jad.2020.09.080
- Bassi M, Negri L, Delle Fave A, Accardi R. The relationship between post-traumatic stress and positive mental health symptoms among health workers during COVID-19 pandemic in Lombardy, Italy. J Affect Disord. 2021;280:1-6. https://doi.org/10.1016/j.jad.2020. 11.065
- Bruyneel A, Gallani M-C, Tack J, et al. Impact of COVID-19 on nursing time in intensive care units in Belgium. *Intensive Crit Care Nurs.* 2021;62:102967. https://doi.org/10.1016/j.iccn.2020. 102967
- Di Tella M, Romeo A, Benfante A, Castelli L. Mental health of healthcare workers during the covid-19 pandemic in Italy. J Eval Clin Pract. 2020;26(6):1583-1587. https://doi.org/10.1111/jep.13444
- González-Gil MT, González-Blázquez C, Parro-Moreno AI, et al. Nurses' perceptions and demands regarding COVID-19 care delivery in critical care units and hospital emergency services. *Intensive Crit Care Nurs.* 2021;62:102966. https://doi.org/10.1016/j.iccn.2020. 102966
- Lord H, Loveday C, Moxham L, Fernandez R. Effective communication is key to intensive care nurses' willingness to provide nursing care amidst the COVID-19 pandemic. *Intensive Crit Care Nurs*. 2021;62:102946. https://doi.org/10.1016/j.iccn.2020.102946
- Sampaio FMC, da Cruz Sequeira CA, da Costa Teixeira L. Nurses' Mental health during the covid-19 outbreak: A cross-sectional study. J Occup Environ Med. 2020;62:783-787. https://doi.org/10.1097/ JOM.000000000001987
- Sun N, Wei L, Shi S, et al. A qualitative study on the psychological experience of caregivers of COVID-19 patients. *Am J Infect Control*. 2020;48(6):592-598. https://doi.org/10.1016/j.ajic.2020.03.018
- Johns Hopkins University and Medicine. Mortality analysis. Published December 13, 2020. Accessed December 13, 2020. https:// coronavirus.jhu.edu/data/mortality
- Shechter A, Diaz F, Moise N, et al. Psychological distress, coping behaviors, and preferences for support among New York healthcare workers during the COVID-19 pandemic. *Gen Hosp Psychiatry*. 2020; 66:1-8. https://doi.org/10.1016/j.genhosppsych.2020.06.007
- National Council of State Boards of Nursing. National Nursing Workforce Study. NCSBN. Published 2018. Accessed December 27, 2020. https://www.ncsbn.org/workforce.htm
- Duarte M, de LC, Silva DG, da Bagatini MMC. Nursing and mental health: A reflection in the midst of the coronavirus pandemic. *Rev Gaúcha Enferm*. 2021;42(spe):e20200140. https://doi.org/10.1590/ 1983-1447.2021.20200140
- 19. Creswell JW, Plano Clark VL. Designing and Conducting Mixed Methods Research. Third Edition. SAGE; 2018.

- 21. Creswell JW. Qualitative Inquiry and Research Design: Choosing among Five Approaches. 3rd ed. SAGE Publications; 2013.
- CDC. Communities, Schools, Workplaces, & Events. Centers for Disease Control and Prevention. Published April 30, 2020. Accessed December 16, 2020. https://www.cdc.gov/coronavirus/ 2019-ncov/community/correction-detention/guidance-correctional-detention.html
- Healy S, Tyrrell M. Stress in emergency departments: Experiences of nurses and doctors: Sonya Healy and Mark Tyrrell review accounts of acute stress among healthcare professionals and show how it can be anticipated, reduced and managed. *Emerg Nurse.* 2011;19(4):31-37. https://doi.org/10.7748/en2011.07.19.4.31.c8611
- Milligan F, Almomani E. Death anxiety and compassion fatigue in critical care nurses. Br J Nurs. 2020;29(15):874-879. https://doi.org/ 10.12968/bjon.2020.29.15.874
- Kellogg MB. Secondary traumatic stress in nursing: A walker and avant concept analysis. Adv Nurs Sci. 2021;44(2):157-170. https:// doi.org/10.1097/ANS.00000000000338
- Anders RL, Lam SC. COVID-19 experience in mainland China: Nursing lessons for the United States of America. Nurs Forum (Auckl). 2021;56(2): 439-443. https://doi.org/10.1111/nuf.12546
- Khalaf IA, Al-Dweik G, Abu-Snieneh H, et al. Nurses' experiences of grief following patient death: A qualitative approach. J Holist Nurs. 2018;36(3):228-240. https://doi.org/10.1177/0898010117720341
- Dill J, Erickson RJ, Diefendorff JM. Motivation in caring labor: Implications for the well-being and employment outcomes of nurses.

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Soc Sci Med. 2016;167:99-106. https://doi.org/10.1016/j. socscimed.2016.07.028

- Arnetz JE, Goetz CM, Sudan S, Arble E, Janisse J, Arnetz BB. Personal protective equipment and mental health symptoms among nurses during the COVID-19 pandemic. J Occup Environ Med. 2020;62:892-897. https://doi.org/10.1097/JOM. 000000000001999
- Labrague LJ, Santos JAA. COVID-19 anxiety among front-line nurses: Predictive role of organisational support, personal resilience and social support. J Nurs Manag. 2020. 2020;28(7):1653-1661. https:// doi.org/10.1111/jonm.13121
- Andersen S, Mintz-Binder R, Sweatt L, Song H. Building nurse resilience in the workplace. *Appl Nurs Res.* 2021;59:151433. https://doi. org/10.1016/j.apnr.2021.151433
- McVicar A. Workplace stress in nursing: A literature review: Workplace stress in nursing. J Adv Nurs. 2003;44(6):633-642. https://doi. org/10.1046/j.0309-2402.2003.02853.x

How to cite this article: Kellogg MB, Schierberl Scherr AE, Ayotte BJ. "All of this was awful:" Exploring the experience of nurses caring for patients with COVID-19 in the United States. *Nurs Forum.* 2021;56:869-877.

https://doi.org/10.1111/nuf.12633