

# Experiences of Nurses During the COVID-19 Pandemic: A Mixed-Methods Study

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## ABSTRACT

**Background:** The first wave of coronavirus disease 2019 was a global event for which nurses had limited time to prepare before receiving an influx of high-acuity patients and navigating new plans of care.

**Objectives:** To understand nurses' lived experiences during the COVID-19 outbreak and to examine their resiliency.

**Methods:** A convergent mixed methods design was applied in this study. For the quantitative portion, resiliency was measured by using the Brief Resilience Coping Scale. Colaizzi's phenomenological method was used for qualitative analysis.

**Results:** A total of 43 nurses participated in the study. The mean score on the Brief Resilience Coping Scale was 14.4. From 21 robust narratives, Colaizzi's qualitative method yielded 5 themes to describe the experience of being a nurse during the pandemic.

**Conclusions:** Understanding the lived experience provides a unique lens through which to view nursing during a global pandemic, and it serves as a starting point to ensure future safeguards are in place to protect nurses' well-being.

**Key words:** COVID-19, lived experience, mixed methods, resilience

Nurses are at the forefront of promoting health, advocating for patients, and advancing the science of care. The World Health Organization designated the year 2020 as the Year of the Nurse and the Midwife.<sup>1</sup> Organizations within the World Health Assembly, such as the International Confederation of Midwives, International Council of Nurses, Nursing Now, and the United Nations Population Fund, planned to celebrate nurses worldwide, to address challenges nurses face, and to highlight nurses' vast contributions throughout 2020.

The Year of the Nurse and the Midwife, however, was quickly overshadowed by the international invasion of the novel coronavirus disease 2019 (COVID-19). The effects of COVID-19 have been felt in, and continue to ripple through, all areas of the world. Anecdotes continue to emerge as nurses engage in the power of storytelling to share their

individual reality of COVID-19. Curating and archiving these pandemic experiences are important and necessary. This study aims to scientifically examine the resilience and experiences of registered nurses (RNs) practicing during the pandemic.

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## Background

### History of COVID-19

Severe acute respiratory syndrome coronavirus 2 is the virus that causes COVID-19, which was first identified as a pneumonia-like illness in Wuhan, China, in December 2019. The World Health Organization declared a public health emergency in January of 2020, and in March 2020 the United States declared a national emergency.<sup>2</sup> Areas of Europe and the United States became epicenters of the disease. Information about the pathophysiology, prevention, and treatment of, as well as recovery from, COVID-19 continues to emerge.

Symptoms of COVID-19 are variable but can be flulike, including fever, cough, shortness of breath, fatigue, gastrointestinal disturbances, and the loss of taste and smell.<sup>3</sup> Evidence is emerging about how COVID-19 affects populations differently, specifically more vulnerable populations such as older adults,<sup>4</sup> racial and ethnic minority groups,<sup>5</sup> and children.<sup>6</sup> Notably, children younger than 12 years who contract COVID-19 are particularly vulnerable to multi-system inflammatory syndrome, a cluster of symptoms mimicking those of Kawasaki disease.<sup>6</sup> Clotting disorders, indicated by increased D-dimer level and high prothrombin time,<sup>7</sup> seem to contribute to increased mortality rates among adults diagnosed with COVID-19.

New protocols for combating COVID-19 are also being shared daily. Prone positioning is known to improve oxygenation in patients with acute lung conditions.<sup>8</sup> During the pandemic, evidence supporting the practice of placing awake patients in the prone position has been used to validate prone positioning as an intervention to prevent intubation and improve oxygenation.<sup>9,10</sup> Protocols for social distancing in communal areas such as schools, workplaces, and hospitals were put in place in order to mitigate the spread of the virus.<sup>3</sup> Across the United States, intensive care units (ICUs) that usually actively support open visitation<sup>11</sup> have closed to family members. The environment in which nurses practice has been well studied; research has found that the work environment impacts nurses' psychosocial well-being and interpersonal relationships, and the quality of patient care.<sup>12</sup> It also contributes to the incidence of burnout and job satisfaction among nurses,<sup>13</sup> as well as patient mortality.<sup>12</sup> Nurses working in critical care environments have experienced some of the quickest changes to date in response to COVID-19.

Overall, nurses have high rates of exposure to infectious diseases. Personal protective equipment (PPE) standards are in place to protect nurses from disease transmission. Evidence remains mixed, however, on how best to remove soiled PPE and to train health care workers in the proper application of PPE.<sup>14</sup> During the COVID-19 outbreak, nurses and other health care providers have been facing a global shortage of PPE,<sup>15</sup> and institutions have implemented unconventional practices to conserve and reuse PPE.

In the context of these rapid changes and the promotion of practices that were once unheard of, nurses face the potential for not only physical but also psychological distress. More specifically, moral distress occurs when nurses cannot provide compassionate care to patients,<sup>16</sup> and it contributes to nursing burnout and compassion fatigue.<sup>17</sup> In addition to the reuse of PPE, other factors such as the influx of high-acuity patients, the lack of the presence of family members, and high patient censuses have contributed to increased moral distress among nurses. Psychological stressors related to caring for patients who are terminally ill and have COVID-19 test nurses' resilience. Caring for dying patients heightens the risks of job burnout and secondary traumatic stress syndrome.<sup>18</sup> Other factors contributing to nurse burnout include unrealistic job expectations, lack of respect, and mismatched values between the employee and the organization.<sup>19</sup> On the other hand, personal support and peer relationships have demonstrated positive outcomes related to building resiliency.<sup>20</sup>

To protect the public, and to enforce governmental suggestions for social distancing, institutions changed visitation policies to stop family bedside presence in efforts to slow the spread of the virus. This familial distance, along with additional causes of moral distress, such as increased workload, staffing concerns, and the potential for medication errors,<sup>16</sup> are all characteristics of the tumultuous critical care environment during the pandemic. This study aims to understand the lived experiences of nurses working in this environment during the pandemic and to measure their level of resilience.

### Review of the Literature

At this time this manuscript was prepared, most studies of COVID-19 are from researchers in China, given that the outbreak of the pandemic began there. We reviewed the literature

about nurses' experiences during COVID-19, searching PubMed, CINAHL, and Google Scholar. We retrieved 2 studies, both from China, that directly explore the experiences of health care providers during the COVID-19 pandemic; they were published in online journals in April 2020. To the best of our knowledge, in the United States, only media publications exist about nurses' experiences caring for patients with COVID-19, and no research publications from within the United States were available when we were writing this review.

A qualitative phenomenological study of 9 nurses and 4 physicians in China explored the experience of combating COVID-19.<sup>21</sup> Three themes emerged from the telephone interviews researchers conducted with these participants. The first theme, "being fully responsible for a patient's well-being—this is my duty," describes the obligation to provide care. The second theme was the "challenges of working on COVID-19 wards."<sup>21</sup> The nurses and physicians in the study expressed challenges in dealing with their fears of becoming sick themselves or infecting their family members, their powerlessness when handling patients' deteriorating health, and the exhaustion of PPE supplies.<sup>21</sup> With regard to the third theme, "resilience amid challenges," nurses and physicians discussed their support of one another and the coping solutions they use.<sup>21</sup>

The second qualitative, phenomenological study, also from China, investigated the psychological experiences of nurses caring for patients with COVID-19.<sup>22</sup> The investigators interviewed 20 nurses and identified 4 themes: (1) a significant amount of negative emotions in the early stage; (2) coping and self-care styles; (3) growth under pressure; and (4) positive emotions occurred simultaneously or progressively with negative emotions.<sup>22</sup> Those nurses shared that in the early stages, their lack of knowledge about the virus and fear of infecting their families caused their anxiety.<sup>22</sup> They also discussed the sense of teamwork they felt with their fellow nurses, and how their appreciation for life and their sense of professional responsibility as a nurse during this time contributed to their growth and positive emotions regarding the experience.<sup>22</sup>

Resilience is a well-studied concept in nursing and has been investigated among numerous populations including nursing students,<sup>23</sup> nurse shift workers,<sup>24</sup> and critical care nurses.<sup>25</sup>

The high-pressure environment of the ICU accelerates symptoms of burnout, such as moral distress and compassion fatigue.<sup>26</sup> Stressful job demands, posttraumatic stress disorder, and workplace bullying are associated with high perceived burnout among critical care nurses, whereas social support, self-efficacy, and a sense of well-being help to build resilience.<sup>27</sup>

The creation and maintenance of a healthy work environment helps mitigate symptoms of burnout among nurses in critical care units. Nurses should be encouraged to advocate for systemic change, innovate, collaborate with other like-minded clinicians, and be an agent of change.<sup>28</sup> Certain personality characteristics common to critical care nurses—perfectionism, difficulty setting limits, pessimism, competitiveness, and confusing self-interest with selfishness—contribute to an increase in feelings of burnout.<sup>29</sup> Use of creative arts (music, art, dance, and writing programs) in the workplace are recommended interventions to promote well-being and resiliency in critical care nurses.<sup>30</sup>

## Methods

### Research Design

We gathered qualitative data from the personal experiences of RNs working during the COVID-19 pandemic, and we obtained quantitative data from responses to the Brief Resilience Coping Scale.<sup>31</sup> We applied a convergent mixed-methods design,<sup>32,33</sup> collecting both types of data simultaneously but analyzing them separately. As the name of this design suggests, we used each type of data to validate the other and to create solid foundations through which to answer the research question.

*Qualitative Analysis.* For this study we followed the method of descriptive phenomenology described by Husserl.<sup>34</sup> Descriptive phenomenology allows participants to openly describe the essence of an experience and allows the researcher(s) to examine the phenomena as the participants experience them. Having participants openly discuss their experiences is important: "each individual has his experienced things, that is, if we understand by this what in particular is valid for him, what is seen by him,"<sup>34(p164)</sup> we come to understand the essence of an experience.

To analyze the qualitative data, we followed the method described by Colaizzi.<sup>35</sup> We identified significant statements within the data and wrote a formulated meaning for each.

One example illustrates the process we applied to write these meanings: A participant shared that “The reusing of gowns scares me. I haven’t found a way to remove it and put it back on without thinking, ‘Did I just contaminate myself?’” From this, we wrote the following formulated meaning: “The nurse expressed that she was scared of having to reuse gowns, and that each time she took one off and had to put it back on, she wondered whether she had contaminated herself.” We then analyzed the formulated meanings and formed thematic clusters using the “long table” approach, which involves transcribing significant statements onto individual cards to visualize the data and then hand classifying into theme clusters through physical piles, moving and collapsing piles as themes emerge from the data. We also wrote an exhaustive statement that described the overall experience of being a nurse during the COVID-19 pandemic. To ensure the trustworthiness of the data, 2 study participants reviewed the exhaustive statement and confirmed that it “perfectly” captured the essence of their experiences.

**Quantitative Analysis.** The Brief Resiliency Coping Scale (BRCS) is a 4-item survey designed to measure coping mechanisms during highly stressful situations; each item is rated on a Likert scale.<sup>33</sup> The 4 items are

- “I look for creative ways to alter difficult situations.”
- “Regardless of what happens to me, I believe I can control my reaction to it.”
- “I believe I can grow in positive ways by dealing with difficult situations.”
- “I actively look for ways to replace the losses I encounter in life.”

Participants rate their self-perceptions of resiliency in relation to each item: a low score (1) represents behaviors that do not describe the individual, whereas a high score (5) represents resilience behaviors that describe the individual very well.<sup>33</sup> The BRCS can measure personal characteristics of tenacity, optimism, creativity, problem solving, and positive growth from difficult situations.<sup>33</sup>

The BRCS is valid and reliable (Cronbach  $\alpha = 0.69$ ; the minimal accepted standard is  $\alpha = 0.70$ ).<sup>33</sup> The scores for each item are totaled for each participant in order to determine their resiliency in coping: low resilient copers score 4 to 13 points; medium resilient copers score 14 to 16 points; and high resilient copers score 17 to 20 points. Overall, for this study, a high

score would demonstrate a participant’s ability to be positive and to grow during this stressful COVID-19 outbreak, whereas a low score would demonstrate that a participant has not been able to cope well with the situation. We used descriptive statistics, including frequencies, to analyze the quantitative data for both BRCS responses and demographic data.

## Procedure

The Fairfield University Institutional Review Board approved the study. We recruited acute care RNs to participate in the study via professional organizations’ websites and social media platforms. Specifically, the American Association of Critical-Care Nurses posted the direct link to the study on their website. We also relied on snowball sampling and word of mouth to recruit a diverse sample of nurses with varying characteristics (age, practice experience, and geographic location).

Inclusion criteria were (1) age at least 21 years or older; (2) English-language fluency (both reading and writing); and (3) being an RN who has been actively working (full-time, part-time, or per diem) during the COVID-19 pandemic.

After providing electronic informed consent, the participants completed a demographic form and then the 4-item BRCS (quantitative data).<sup>33</sup> They were asked to provide a written narrative in response to the request, “As an acute care nurse working during the COVID-19 pandemic, please describe your experience of caring for your patients and for yourself. Share all your thoughts, feelings, and perceptions until you have no more to say about the experience. Specific examples are helpful.” Participants shared their experiences by typing their response in a free-text box (qualitative data). We maintained the confidentiality of all data and used password-protected documents that only we could access.

## Results

### Sample

A total of 47 RNs responded to the survey between early May and the end of June 2020. Most of them ( $n = 36$ ) responded in May, meaning that these data were collected at the time when most regions in the United States had just passed the peak of COVID-19 cases within their hospitals and medical centers. Four participants reported that they had not yet cared for a patient who had tested positive for COVID-19;

**Table 1: Nurses' Self-Care Practices During the Pandemic (N=43)**

	Social	Spiritual	Physical	Occupational	Intellectual	Emotional	Other
No. of nurses self-reporting (%)	34 (79)	17 (40)	29 (67)	0 (0)	25 (58)	26 (61)	29 (67)

we removed their responses before analyzing the data.

The final sample comprised 43 RNs (42 from the United States, with 1 from Puerto Rico; and 1 from Ontario, Canada). Of the 41 RNs practicing in the continental United States, 9 typically practiced nursing in Illinois; 8 in Connecticut; 4 in Massachusetts; 3 in California, 2 each in New York and Ohio; and 1 each in Alabama, Arizona, Colorado, New Jersey, Louisiana, North Carolina, Maryland, Minnesota, Pennsylvania, South Carolina, and Texas. All 39 of those nurses continued to practice in their same state during the pandemic. The other 2 RNs noted that during the COVID-19 outbreak they had traveled to provide nursing care in states (Illinois and New Jersey) other than where they usually work.

Participants had a mean age of 40.9 years (range, 23-64 years). One nurse in the sample identified as male; the other 42 identified as female. Most (n=34) self-identified as White (non-Hispanic), 5 as Asian, 2 as Hispanic, 1 as American Indian or Alaska Native, and 1 as multiracial. Twenty-three were married, 10 were in a committed relationship, 5 were divorced, 4 were single, and 1 was widowed. Nearly half of the sample (n=20) reported that they had children who still lived at home with them.

More than half of the RNs (n=23) reported a bachelor's degree as their highest level of education. Among the rest, 3 held a doctorate, 9 held a master's degree, and 8 had received an associate's degree. The respondents reported between 1 and 44 years of work experience as a nurse (mean, 15.8 years).

At the time of this study, 39 nurses were working full-time, 3 part-time, and 1 per diem. Almost half (n=21) described the hospital at which they primarily work as a nonprofit community hospital; 7, as a for-profit community hospital; 6, as a university medical center; 3, as a college/university hospital; and 1 each, as a corporate/industry hospital, nonacademic teaching hospital, nonprofit rural hospital, military hospital, and state hospital. Only 1 respondent described their organization as a

“travel nurse.” Nurses worked on various types of units: 19 worked in an ICU and 10 in a medical-surgical unit; others worked in an emergency department (adult and pediatric), medical ICU, neuroscience ICU, critical care unit, telemetry unit, postanesthesia care unit, cardiac care unit, maternity ward, surgery unit, hospice, or the float pool. Several worked in more than 1 type of unit. Nurses also reported working on both designated COVID-19 and non-COVID-19 units.

Overall, most nurses (n=33) reported that they had cared for between 1 and 50 patients with COVID-19 to date; 8 had cared for between 51 and 100 patients; and 2 had cared for between 101 and 150 patients. Most nurses (n=29) reported that patients with COVID-19 had died in their unit. On average, 13 patients with COVID-19 had died (range, 1-100 deaths) on the units where these nurses worked. Of the nurses in the sample, 14 reported that they were not aware of any COVID-19-related deaths on their unit.

The final portion of demographic data collected related to the participants' self-care practices during the pandemic. The National Wellness Institute endorses 6 dimensions of wellness: social, spiritual, physical, occupational, intellectual, and emotional. Participants responding to the study selected the activities they most commonly use to care for themselves and to balance out their care of others. Table 1 illustrates these categories of self-care and the numbers of nurses who reported using each during the pandemic. The most frequently used self-care methods were social forms, followed closely by physical self-care practices. Self-care activities included spending time with those in the same household or arranging virtual visits with friends (social); prayer or meditation (spiritual); exercise, walking, and yoga (physical); arts/crafts/creative endeavors, reading, and writing/journaling (intellectual); and listening to music (emotional). Some chose activities such as watching television, going to the spa, or attending formal therapy as a method of restoration; these would be categorized as “other” (Table 1). No participants

**Table 2: Mean Participant Scores on Brief Resilience Coping Scale Items (N=43)**

BRSC Item <sup>a</sup>	Mean Score (SD)	Range
"I look for creative ways to alter difficult situations."	3.6 (0.9)	2-5
"Regardless of what happens to me, I believe I can control my reaction to it."	3.7 (0.9)	2-5
"I believe I can grow in positive ways by dealing with difficult situations."	4.0 (0.7)	2-5
"I actively look for ways to replace the losses I encounter in life."	3.4 (0.9)	1-5

Abbreviation: BRSC, Brief Resilience Coping Scale.

<sup>a</sup> Each item on the BRSC is answered on a 5-point Likert scale.

chose a method of self-care reflective of occupational wellness.

During our review of the qualitative data, we noted that 22 of the participants responded to the open-ended research question with only a few words or sentences. These 22 brief responses did not contain any experiences or examples; therefore, we were unable to include them in the qualitative portion of this study. Of the 21 nurses who did respond with robust experiences of working as a nurse during the pandemic, they wrote, on average, between half a page to 2 pages of text. The characteristics of this subset of nurses did not differ significantly from those of the sample as a whole. For example, their mean age was 44.8 years, just 4 years older than the mean age of the entire sample. Among the nurses whose responses we included in the qualitative analyses, 18 were White (non-Hispanic), 1 was Asian, 1 was Hispanic, and 1 was multiracial.

**Quantitative Analysis**

The mean score on the BRCS for the entire sample (n=43 nurses) was 14.4 (SD, 2.3). The mean and SD score for each item are compiled in Table 2. Overall, the total mean score indicates that most nurses in this study (n=19) were medium resilient copers; 9 were high resilient copers and 15 were low resilient copers.

The mean score for resilient coping was 15.38 for the 21 nurses included in the qualitative data analysis, indicating that overall they were also medium resilient copers; the breakdown was 7 high resilient copers, 10 medium resilient copers, and 4 low resilient copers. When

**Table 3: Overarching Themes**

<b>Theme 1</b>	"What's the protocol today? And where, oh where, is the research?"
<b>Theme 2</b>	Family ties broken: How nurses bridge the gap
<b>Theme 3</b>	The never-ending "sanitize cycle"
<b>Theme 4</b>	Restorative self-care
<b>Theme 5</b>	"Proud to be a nurse"

considering the entire study population on the basis of their provision of robust narratives, we included in the qualitative analysis 77.8% of the high resilient copers, 52.6% of the medium resilient copers, and 26.7% of the low resilient copers.

**Qualitative Analysis**

From the 21 narratives, we identified 272 significant statements regarding the experience of being an acute care nurse during the COVID-19 pandemic. After the team derived formulated meanings for each statement, the first author (JAL) collapsed them into thematic clusters within 3 days. Five overarching themes emerged from the data; these themes describe the essence of being an acute care nurse during the COVID-19 pandemic (Table 3). Last, the team wrote an exhaustive description of the essence of the experience of being a nurse during the COVID-19 pandemic.

*Theme 1: What's the Protocol Today? And Where, Oh Where, Is the Research?* All 21 nurses had at least 1 experience or thought that contributed to this theme. They all discussed how their stress was heightened because their hospital's protocols changed daily: "There was a lot of confusion from [the] administration with changing guidelines, directions, [and] endless questions."

The negative emotions, frustration, anxiety, and stress they each expressed stemmed from the unknown and from both the constantly changing protocols related to patient care and the continual changes surrounding proper use and allocation of PPE. They worried that when reusing PPE, especially gowns, they would contaminate themselves while putting it back on. The nurses also worried that the sanitation process for N95 masks had not been tested and could potentially break down the mask material, thereby putting them at a higher risk of being exposed to COVID-19.

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They spoke of the “physical exhaustion of wearing PPE all day” and the stress related to wearing an N95 mask for “a week” or until “visibly soiled” or, in some instances, “until damaged.” A nurse working in a neuroscience ICU at a teaching hospital noted “using and reusing masks and shield, saving PPE in paper bags, bags taped to doors and counters and stacked in every corner,” providing a visual of what reusing PPE looks like. Last, to this point, within their institutions nurses faced not only limited supplies of PPE but also shortages of body bags and morgue space. Some witnessed “popular chain grocery store freezer trucks [being] painted over and turned into a makeshift morgue” for their hospital.

They also discussed the difficulties of COVID-19 testing, with the potential for false negatives, a lack of clarity regarding antibody testing, and the stress of potentially caring for asymptomatic patients with COVID-19. Although this last point was resolved when hospitals moved to testing all patients regardless of their symptoms, it was stressful for these nurses and illustrates their anxiety. Even when these nurses expressed that their hospitals had prepared well for the predicted surge of COVID-19-positive patients who would require high-acuity care, they still focused on “every day being so unpredictable with protocols and policies constantly changing.” Then, as they became thankful that the numbers of patients with COVID-19 began to drop, a new stressor arose when COVID-19-positive and -negative patients were allowed on the same floors and units.

It was not that these nurses did not want to do their jobs. In fact, the exact opposite was true: they wanted to care for all their patients, even those with COVID-19; however, they needed information, research, and data on how to provide optimal care for these patients. “We literally have no idea how to treat this, [and] each week is a guessing game as new data comes out showing what we did the week before made patients worse,” an ICU nurse from a community hospital shared. A medical-surgical nurse working in a float pool at a community hospital offered that “so little research [is available] on this virus and therefore so little information on how to treat it . . . no [intravenous] fluids for most of these patients because of the pneumonia, no [bilevel positive airway pressure], no

med[ication]s proven to be effective—you feel almost helpless.”

Another nurse working in a COVID-19 ICU at a community hospital shared 2 specific experiences of care she had provided to patients. The medications, treatment plans, and therapies were completely different for each. Further highlighting the difficulty experienced by the nurses overall, a nurse who traveled among ICUs stated that “doctors seemed to take care of these patients individually; there was no consistency as to when they started or stopped any medication or when they chose to intubate or if a patient was prone.” No clear protocol was available, given the lack of data on this virus. Many other nurses described their distraught feelings related to not knowing how to care for these patients, coupled with the fact that they were encouraged to spend as little time as possible in patients’ rooms in an effort to protect themselves from the virus.

A nurse working in a medical ICU at a university medical center noted that “the unknown has been difficult—unknown course of disease progression, unknown course of therapy/treatment.”

*Theme 2: Family Ties Broken: How Nurses Bridge the Gap.* The no-visitor policy, even for those who were dying, weighed heavily on the nurses in this study. One ICU nurse at a corporate hospital described it as being “both morally and ethically distressing. I feel terrible for our patients and [their] family members.”

Among responses from the 21 nurses whose qualitative data we analyzed, comments from 13 represent in this theme. They shared how “lonely” patients were and how, “with no family around[, they as nurses] are the family and provide not only the medical needs but also the emotional and mental support” to patients. This role has been compounded during the pandemic, when many patients have been intubated.

Overall, the nurses recognized that patients were depressed and fearful. They noted that patients smiled less without their family members around. Some patients with COVID-19 even asked nurses if they were going to die. As one nurse described it, “the worst part was reassuring them ‘no’ but not being so sure yourself.” Despite the high acuity of their patients, nurses made every attempt to support and encourage them whenever possible. They also went out of their way to hold phones to patients’ ears and hold up electronic devices

such as tablets so that family members could say their final goodbyes and “wish their loved ones sweet dreams.” In the words of 1 nurse, “that shit matters, and I believe it makes a difference” for patients.

Nurses expressed the heavy emotional toll related to patients dying without their family present, and how they as the nurse did everything in their power to bridge the gap and to be the family. An ICU nurse from a rural hospital expressed how “one day I received 8 patients in my 12-hour shift—the pain of helplessness still makes me cry thinking about it. It hurt to have the family calls explaining [that] their loved ones were failing and not allowing them to visit, even at death. Trying to let the patient feel they weren’t alone in those final moments.” Another nurse offered, “I cried for them and for me, and for everyone who doesn’t have a voice.”

Again and again, nurses named ways they provided compassionate care at a time when patients were alone—often going above and beyond to ensure these virtual chats and phone calls happened between patients and their family members. Nurses were literally “watching family members via an iPad pour their hearts out to [the] patients.” In some instances, it would be the last time a patient would speak to their loved one, given how quickly the disease often progressed. Finally, nurses mentioned the heaviness and “the emotional toll of being in the room on a Zoom call with family saying their last goodbye to their [ventilated and] sedated loved ones.” In the words of the nurses themselves, the patients “are more than their disease” and “we are doing our best.”

*Theme 3: The Never-Ending “Sanitize Cycle.”* Protecting their own families from COVID-19 was paramount for these nurses. Comments from 13 of the 21 nurses represented this theme; those nurses offered ways in which they were doing all they could to keep themselves and their families and friends safe.

These nurses openly expressed their fears of getting sick themselves, and of inadvertently spreading the virus to their children, parents, or partners. Nurses shared how they “pray they don’t bring this home to their kids.” They also wrote about “how stressful it is worrying” whether they themselves will contract COVID-19 because they were “in the room too long, [or] didn’t put their PPE on or off perfectly.” Also, the fear of getting sick, potentially dying, and leaving their children without a parent was

a large concern. Although they worried about becoming sick themselves, the predominant sentiment was clearly “worry about spreading it [COVID-19] to their loved ones.”

This worry led to the new way to come home. Nurses offered the creative ways they were trying to keep their families safe. Many discussed leaving their work clothes at the door and sanitizing their hands and the surfaces they come in contact with. One ICU nurse working at a community hospital described her “new normal”: “When I return home from work I have to remove all of my clothes in the garage and place them immediately on [the] sanitize cycle in the washing machine. I then wash my hands, Lysol the door handle I touched, and then shower immediately. My puppy knows that I will not pet him as soon as I walk in the door, as my hands are dirty.”

They strove to try their best to protect their own families and those they lived with, and they expressed sentiments that demonstrated all their efforts to do so. A medical-surgical float nurse from a community hospital expressed it this way: “not to mention the fear of bringing the virus home to your family. I’ve been living with my parents [who are] in their 60s, feeling guilty about working and then coming home despite stripping my clothes off at the doorway.”

*Theme 4: Restorative Self-Care.* The 12 nurses whose comments represented this theme expressed strong emotions related to being a nurse at the front lines of the COVID-19 pandemic. For all of their frustrations, disappointments, heavy emotional burdens, and anxieties, each nurse pivoted from these emotions to sharing at least 1 example of what they personally had been doing to cope with their feelings. These restorative acts of self-care were what was getting these nurses through the difficulties of being on the front lines. A nurse working in an emergency department at a community hospital expressed it in this way: “It feels as though everything is weighing heavy on me. I have attempted to cope with this anxiety by working out and spending time with my dog and fiancé.” For each emotion mentioned, these nurses offered ways in which they were coping or taking care of themselves.

Overall, the nurses were struggling with some large losses: wedding plans put on hold or changed, graduation celebrations postponed or cancelled, family time interrupted, vacations



cancelled, personal appointments put off. The ways in which nurses coped and the types of self-care measures they used varied, ranging from quiet prayer during the drive to and from work, to a decision to pursue a doctorate in nursing so, as one ICU nurse expressed, she can “be the type of leader the health care system craves and needs.”

In addition, nurses shared how they also were journaling, exercising, gathering virtually with friends, crafting, practicing mindfulness, and talking to their loved ones more often. A critical care nurse at a community hospital offered, “we are starting to get weary . . . to take care of myself I pick up very little overtime, I listen to worship music, [and] I use a mindfulness app.” These self-care measures have allowed these nurses to get up and go back to work each day in order to continue to care as best as they can for their patients throughout the pandemic.

*Theme 5: “Proud to Be a Nurse.”* These nurses resoundingly shared how proud they were to be a nurse on the front lines during this pandemic. They discussed how they went into nursing to help people, and how much they “love” their jobs. As 1 nurse shared, during this pandemic, “I feel the teamwork, and the empowerment of *being* a nurse.” The nurses’ pride allowed them to “power on” during the pandemic; it propelled them forward.

They were proud to be providing nursing care and appreciated the recognition of their work by local restaurants who donated food to their hospitals. They spoke not only of the meals but also of the “thank you” signs that people within their communities would hold up or place in their yards, and of the ways other essential workers (eg, firefighters and police) thanked them for their work as nurses. They “appreciated the kindness, but didn’t look for it”; as they expressed, they are simply doing their job: “It’s what [they] trained for.”

They spoke of the “support of their communities” in the form of donated extension pieces that take the pressure of masks off their ears, and of donated water and snacks. They discussed how for all of the celebrations there were equal amounts of disappointment and loss of patients. In those times, being surrounded by a team of “incredible nurses” propelled the pride they felt in showing up and providing care during the pandemic. “It has truly been a team sport.” Teamwork, and the bonds made,

were an essential thread woven into this theme: “We will never be the same after all this, but the bond we made as [front-line heroes] will never be broken [heart emoji], unless you were in it you will never understand fully.”

The sentiments representing this theme, from 12 nurses, are best summarized by an emergency department nurse at a university hospital: “I purchased a Polaroid camera and I am journaling and taping in pictures of our lives during COVID-19. I hope my future children will look back one day and be proud that I was a nurse on the front lines of COVID-19.”

*Exhaustive Description.* The final result of our qualitative analysis was the essence of the experience of being a nurse during the COVID-19 pandemic. These nurses showed up each day to care for their patients, asking, “What’s the protocol today?” They often felt helpless, as so few data and so little research were available to know what treatment plans to implement. They also expressed frustration with the constantly changing PPE guidelines and the need to reuse PPE throughout the day or even the week. They were emotionally shaken by having to bridge the gap for their patients, who were not allowed visitors and who were dying alone while their loved ones said goodbye through tablets and phones the nurses held. At the same time, these nurses balanced the need to protect themselves and their families, and they discovered new ways to return home each day; these methods often involved disrobing in their garages, sanitizing their clothing, cleaning door handles, and delaying hugs to family members and pets until they had showered. The thought of infecting their parents, partners, and children was an ever-present worry. These nurses discussed countless ways they were coping with their emotions through self-care measures, which encompassed quiet prayer and meditation, exercise, crafts, virtual meetings with friends, time spent with loved ones, and a decision to further one’s nursing education. One sentiment clearly resounding from the shared experiences of each nurse was: “I am proud to be a nurse.” Time and time again they demonstrated teamwork to care for not only their patients but each other. “The bond we made as front-line heroes will never be broken . . . unless you were in it, you will never understand fully.” (See Table 4, online only at [www.aacnconline.org](http://www.aacnconline.org).)

## Discussion

A convergent mixed-methods design presents a complete picture. In this study, we used narratives from nurses caring for patients with COVID-19 and their scores from the BRCS to form a robust picture of their experience and how these caregivers have been coping during the pandemic.

Nurses working during the COVID-19 pandemic demonstrated medium resilience scores on the BRCS (mean score, 14.4). The qualitative themes from this study reflect both uncertainty (“What’s the protocol today?”) and certainty (“Proud to be a nurse”). The finding that the nurses in this study are medium resilient copers indicates that they are in the middle of a spectrum, with the ability to grow at one end and, at the opposite end, difficulty in coping with the current situation.

When examining the quantitative results in context with the qualitative themes, a clear picture forms—one that describes *why* nurses in this study identify as medium resilient copers. These nurses demonstrated high resiliency related to the theme of being “proud to be a nurse.” Despite all that was happening, they continued to take pride in being on the front lines, showing up each day to provide care during the pandemic. They were especially empowered by the teamwork in which they and their fellow nurses engaged. On the other hand, the fear and the anxiety caused by constantly changing protocols, lack of research on how to care optimally for patients with COVID-19, and reuse of PPE are examples of low resilient coping during a stressful situation. The qualitative thematic findings elucidate the medium mean resilience score for this sample of nurses.

The overarching concern for safety—personal safety, the safety of family and friends, and the safety of patients—is echoed through this study and through the previous literature describing nurses’ experiences in China.<sup>21,22</sup> Limited supplies of PPE<sup>21</sup> and constantly changing policies and procedures<sup>22</sup> were sources of stress and concern for nurses in both this study and those published in the literature. In this study, nurses had the highest score (mean, 4.0 of 5.0) for the BRCS item, “I believe I can grow in positive ways by dealing with difficult situations.” Participants in other published studies also experienced professional growth.<sup>22</sup> Although previous studies were conducted with international samples, similar themes about

connections to family and to the profession resonated. As in this study, international nurses experienced a profound sense of teamwork and a renewed respect for their profession.<sup>21,22</sup>

Nurses are trained to practice evidence-based health care, and when a method of care works, they will implement it for their patients. But COVID-19 came without a handbook of best practices. These nurses entered their careers knowing protocols would be based on scientific evidence, and thus each and every day they would know they had done all they could. As the COVID-19 pandemic continued, although they were doing all they could for every patient, the protocols were not there, and the science was (and is) not yet fully understood. Providing nursing care in this time, when we have more questions than answers about appropriate PPE, the use of prone positioning, and medication regimens—the list could go on—creates a space of personal vulnerability for these nurses. The looming threat of continued waves of infected patients hangs over the heads and the practice of both novice and expert RNs. Uncertainty remains regarding whether 2020 was the introduction, the rise in action, the climax, or an epilogue in the story of nursing.

Resilience is the capacity to recover quickly from difficulties or the ability to spring back into shape (elasticity).<sup>36</sup> One way in which nurses demonstrated resilience was through the use of self-care behaviors. Those who have been serving throughout this pandemic have been forced into an unrecognizable shape—a shape from which many may not be able to “spring back.” The concept of resilience has been elevated from resuming a previous shape to growing and thriving, with one’s experience translating into new meaning.<sup>37</sup> Thriving is about rising above resilience. Thriving is elevating one’s career in nursing to a new level, caring for the self while continually exceeding the standard of care for others. It is about not just being a nurse in a pandemic but being proud to be a nurse, always.

## Strengths

The main strength of this study is that we collected data immediately after the peak of COVID-19 cases in spring 2020; most participants responded to the survey in May 2020. This timing allowed participants to share rich narratives with specific examples of what it was like to be a nurse during the peak of a pandemic when they were just days or weeks

removed from the actual experience. Their experiences were at the forefront of their minds. The qualitative portion of this study had the unanticipated benefit of being therapeutic. Two participants expressed gratitude at the end of their narratives for allowing them to share their experiences and to write them down.

A second notable strength is the mixed-methods design. Qualitative methodology—specifically descriptive phenomenology, which we applied in this study—is ideal when researching an experience for which very limited prior research exists. Qualitative narratives give meaning to and explain the quantitative numbers. Juxtaposition of the data allows for a more complete picture.

### Limitations

Lack of racial and sexual diversity among study participants is a notable limitation of this study. The small sample size is another limitation. The nature of a pandemic is also a barrier and limitation, as our ability to publicize and access study materials may have been limited during that time.

### Implications for Practice

Nurses were clear that their stress, frustration, and feelings of anger were all related to not having evidence-based practice recommendations for caring for patients with COVID-19. The lack of data and research on COVID-19 protocols and practice guidelines was coupled with and magnified by the almost daily changes in hospital protocols. We recommend timely and transparent communication in future practice and during times of uncertainty.

### Implications for Research

In the subsequent waves of the pandemic, follow-up studies would be beneficial to allow further understanding of the level of resiliency and the experiences of nurses working through this unprecedented time. Investigating the impact of social support and social circles, whether they are in person or virtual, may benefit our understanding of resilience and coping. Scientifically rigorous studies of the use of self-care methods and restorative practices to prevent burnout, such as those in creative arts and others mentioned in recent studies of critical care nurses, are needed to instill a sense of fulfillment.<sup>30</sup> Our field also needs more high-quality qualitative and

mixed-methods research both conducted by and focusing on interprofessional teams.

### Conclusion

*I attribute my success to this—I never gave or took any excuse.*

Florence Nightingale<sup>38</sup>

In the year of Florence Nightingale's 200th birthday, nurses continue to embody her spirit. The COVID-19 pandemic has challenged and continues to challenge us as humans and as health care providers. It challenges the health care system and our society as we know it. The phrase *new normal* is a guise for welcomed change, yet this situation is anything but normal. Despite this all-encompassing challenge, nurses rise to meet it personally and professionally. Where protocols and policies are missing, nurses and health care providers step up and write them. Protection of loved ones and of each other takes priority, and nurses use those imperative social circles to restore well-being. This pandemic has overpowered innumerable elements of society—vulnerable populations, supply chains, families, educational systems, holidays, and personal milestones—but it had the opposite effect on nursing. It steeped nurses in power and pride and caused the public to take pause and give voice to an otherwise quietly anonymous profession.

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The authors dedicate this manuscript to all of the health care workers who have died while fighting COVID-19.

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**Table 4: Exhaustive Description**

**Description**

The final result was the essence of the experience of being a nurse during the outbreak of COVID-19 pandemic. These nurses showed up each day to care for their patients asking, what's the protocol today? They often felt helpless, as there was so little data and research to know what treatment plans to implement. They also expressed frustration in the constantly changing PPE guidelines and the need to reuse PPE throughout the day, or even the week. They were emotionally shaken having to bridge the gaps for their patients who were not allowed visitors, and who were dying alone while their loved ones said goodbye through iPads and phones the nurses were holding. At the same time, these nurses were balancing the need to protect themselves and their families, and they discovered new ways to return home each day, often involving disrobing in their garages, sanitizing their clothing, cleaning door handles, and delaying hugs to family members and pets until they had showered. The thought of infecting their parents, partners, and/or children was an ever-present worry for them. These nurses discussed countless ways they were coping with their emotions through self-care measures, which encompassed quiet prayer and mediation, exercise, crafts, virtual meetings with friends, spending time with loved ones, and a decision to further one's nursing education. One sentiment clearly resounding from the shared experiences of each nurse was: "I am proud to be a nurse." Time and time again they demonstrated teamwork to care for not only their patients but each other. "The bond we made as front-line heroes will never be broken . . . unless you were in it, you will never understand fully."

Abbreviations: COVID-19, coronavirus disease 2019; PPE, personal protective equipment.