


Intensive care unit nurses living through COVID-19: A qualitative study

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Abstract

Aims: To understand how nurses experience providing care for patients hospitalized with COVID-19 in intensive care units.

Background: As hospitals adjust staffing patterns to meet the demands of the pandemic, nurses have direct physical contact with ill patients, placing themselves and their families at physical and emotional risk.

Methods: From June to August 2020, semi-structured interviews were conducted. Sixteen nurses caring for COVID-19 patients during the first surge of the pandemic were selected via purposive sampling. Participants worked in ICUs of a quaternary 1,000-bed hospital in the Northeast United States. Interviews were transcribed verbatim, identifiers were removed, and data were coded thematically.

Results: Our exploratory study identified four themes that describe the experiences of nurses providing care to patients in COVID-19 ICUs during the first surge: (a) challenges of working with new co-workers and teams, (b) challenges of maintaining existing working relationships, (c) role of nursing leadership in providing information and maintaining morale and (d) the importance of institutional-level acknowledgment of their work.

Conclusions: As the pandemic continues, hospitals should implement nursing staffing models that maintain and strengthen existing relationships to minimize exhaustion and burnout.

Implications for Nursing Management: To better support nurses, hospital leaders need to account for their experiences caring for COVID-19 patients when making staffing decisions.

KEYWORDS

COVID-19, critical care, intensive care units, nurse administrators, nursing staff

1 | BACKGROUND

The COVID-19 pandemic has put extraordinary pressure on health systems around the world (Chuang et al., 2020; Livingston et al., 2020). With more than 28.5 million cases in the United States alone (The New York Times, 2020b), hospitals have struggled to obtain adequate supplies of PPE (Kamerow, 2020; Livingston et al., 2020), mechanical ventilators (Alharbi et al., 2020) and staff (Alharbi et al., 2020; Frawley et al., 2020; Morley et al., 2020). Over time, hospitals have expanded the number of intensive care beds to meet patient demand. Moral distress, exhaustion and burnout, already common among health care workers (Fumis et al., 2017; Hamric & Blackhall, 2007; Jameton, 1993), are expected to increase under these circumstances (Frawley et al., 2020).

To increase their ability to care for patients requiring intensive interventions, hospitals are setting up surge intensive care units (ICUs), utilizing models developed by the military and endorsed by critical care societies (Halpern & Tan, 2020; Matos & Chung, 2020). To staff these new ICUs, health care providers are deployed from throughout the hospital (Halpern et al., 2020), sometimes with minimal time to prepare for their new roles. To meet care demands on surge ICUs, some hospitals are pairing general care nurses with intensive care nurses to increase the total number of patients they can treat (Halpern et al., 2020; Halpern & Tan, 2020). As a consequence, nurses have had to quickly adapt to new physical workspaces, co-workers, hospital guidelines and treatment protocols, while physicians and researchers learn about COVID-19's physiological impact and appropriate treatments.

Nurses spend the most time at the bedside and have the most sustained physical contact with patients (Hamric & Blackhall, 2007). During the COVID-19 pandemic, nurses and respiratory therapists had more direct contact with patients than physicians and other allied health providers, putting themselves and their families at physical and emotional risk. This study asks nurses how they experienced providing care in the face of new challenges, some of which included difficulties surrounding staffing ratios and partnerships, physical and mental exhaustion, and increases in high acuity patients. To support nurses, increase retention and reduce risk of burnout, we aimed to understand how hospitals could utilize the knowledge and skills of nurses to better meet current needs.

2 | METHODS

2.1 | Setting and study population

This small, exploratory study used qualitative research methods to investigate the experiences of nurses at a quaternary 1,000-bed hospital during the first COVID-19 pandemic surge in Boston, from April to June 2020. On 1 April 2020, there were 7,738 confirmed cases in the state of Massachusetts, increasing to 100,805 cases by 1 June 2020 (The New York Times, 2020a). This institution mostly serves patients from the greater Boston area and, in response to the surge, increased its ICU bed capacity 90% to meet patient demand.

TABLE 1 Demographic characteristics of 14 participants

Characteristic	No. (%)
Age, mean (SD), years	34.3 (9.6)
Female sex	14 (100)
Race/ethnicity	
White	13 (92.9)
Black	1 (7.1)
Highest educational level	
Bachelor's degree	12 (85.7)
Master's degree	2 (14.3)
Mean (SD) no. of years as a nurse	10.9 (7.9)

Note: Data were self-reported on behalf of the participant. Two participants did not provide this information.

Semi-structured, in-depth interviews were conducted between June and August of 2020. Each interview followed an interview guide that included questions about the nurses' experiences of working under unfamiliar practice conditions, caring for patients with a novel infectious disease, assessing risks to self and family, and ideas about what kinds of additional support would be helpful to them.

Participants included sixteen nurses who practised in two units at the hospital during the first surge of the COVID-19 pandemic. Four respiratory therapists also participated in this study but were excluded from the analysis, which focuses on the nurses' experiences of new staffing arrangements and patient care. Half of the nurses ($n = 8$) originally practised on ICUs, while half ($n = 8$) were general care nurses from other areas of the hospital. Of the ICU nurses, half ($n = 4$) continued to practise on their home units, while half ($n = 4$) were deployed to work on interim surge ICUs. The same sampling followed for the general care nurses. Additional demographic information for these participants is located in Table 1.

Eligible participants were notified of the study via email from nursing directors on behalf of the principal investigator. Invitations emphasized that participation was voluntary and would not be revealed to unit or hospital leadership. All potential participants were offered a list of support resources after contacting study staff.

2.2 | Data collection

Interviews were conducted by four members of the research team via Zoom or telephone and lasted between 35 min and 1 hr. Verbal consent for participation and recording were obtained at the beginning of each interview. Participants were reminded that they could withdraw from the study at any time. Participants were given an honorarium of \$20 in appreciation for their involvement.

2.3 | Data analysis

Interviews were transcribed verbatim, and after all identifiable information was removed, the transcripts were uploaded into ATLAS.

ti. The analysis combined both deductive and inductive strategies. To begin, a codebook, which defined 35 initial codes, was developed based on the research questions which motivated the study. The two team members who did the initial, open coding of the data also added codes inductively, as new themes emerged from the interviews themselves (Charmaz, 2006; Ryan & Bernard, 2003). A second round of focused coding was done, which integrated the new codes and identified connections between codes; the four themes discussed in this paper coalesced during this process (Charmaz, 2006). Discrepancies in coding were discussed by the research team, to maximize consistency in coding and to provide inter-rater reliability.

2.4 | Ethical approval

This study was reviewed and approved by the Institutional Review Boards at both Partners Healthcare (2020P001637) and Brandeis University (#21064R-E). Core principles of research ethics were followed throughout the entirety of study to ensure the safety, confidentiality and anonymity of the participants.

3 | RESULTS

At this institution, COVID-19 patients were clustered on five of the six existing intensive care units. Additionally, six new surge ICUs were opened in early April 2020. To staff these units, the hospital paired ICU nurses with general care nurses to work in tandem. Some nurses volunteered for these assignments, while others were deployed by their supervisors. ICU nurses received training for their new roles via staff meetings and informational emails, while general care nurses participated in brief shadowing experiences and completed online training modules for ICU procedures that were new to them. As information about the virus was constantly emerging, changes in care models were relayed to nurses via leadership, with much training developing in real time.

Nurses reported challenges that included health risks to themselves and their families, adapting to changes in safety and care procedures, working with new staff, lacking information about the virus and, for some, leaving their home units. What supported nurses most in facing these obstacles was their ability to maintain pre-existing relationships and foster new ones. While we summarize our findings below, additional quotes for each theme are displayed in Table 2.

3.1 | Challenges of working with new co-workers and teams

As surge ICUs were established to meet patient needs, hospital leadership was tasked with creating new care teams and integrating deployed nurses into their own staff. Negotiating these new relationships took time and was often challenging. Some leadership

formally welcomed nurses to their units and tried to cement relationships between nurse pairs: '[Leadership] made a huge point of making us feel like part of their team. Not that we were borrowed, that we were part of their clinical care team and it, there was a comfort [amongst ICU and general care nurses] that we were all kind of in this together'.

Especially at the beginning of the surge, nurses struggled with a lack of defined roles. As nurses worked in close corridors with a partner, they experienced difficulties in dividing up patient care: 'I think communication was definitely a challenge at first, being able to have two cooks in the kitchen and understanding what role each of them played in the patient care I think was difficult'. These challenges were intensified for nurses who were paired with a different nurse partner every day, and when it was not clear which physicians were assigned to the team.

In an effort to take some of the workload off nurse pairs, hospital leadership created function-specific teams to complete certain tasks, which nurses uniformly found helpful. The COVID-19 Bundled Response for Access (COBRA) Team was able to complete line insertion, the Proning Team assisted with proning patients, and the Spanish Language Team was available to support communication with patients and families.

3.2 | Challenges of maintaining existing working relationships

Participants highlighted the importance of drawing support of from existing work relationships as they experienced the intensity and challenges of the pandemic. For some nurses, knowing that they would stay with peers from their home unit was essential to their decision to volunteer for deployment. This allowed nurses to seek advice and support from familiar colleagues during a time when much else was unknown.

Those who continued working on their home unit experienced smoother transitions as compared to those who were deployed. Existing relationships made it easier to navigate the challenges of providing care in new and difficult situations: '...we really were so lucky because we knew each other well enough to know '...she's in this room with this patient... she looks stressed... I know that she may need these things,' and we were kind of able to anticipate each other's needs and support each other that way...So, it was really you know nursing leaning on nursing...' Those sent to new units—and especially when apart from peers on their original home units—reported not having this same sense of comfort, feeling disconnected and often losing touch with leadership that previously had supported them.

Nurses reported turning to each other for support, even when institutional resources, such as the Employee Assistance Program (EAP), were made available. They felt more comfortable talking with peers who had shared the experience of caring for patients with COVID-19.

TABLE 2 Additional quotations

Theme	Subtheme	Quotations
1. Challenges of working with new co-workers and teams	a. Relationships on new care teams had to be negotiated	<p>'From the start... I think everyone's emotions and like stress levels were so high, like that entire like month and a half that I was there that like... there were a lot of strong personalities to interact with at times. And I felt for me, because they didn't know me, I had to sort of prove myself and my like nursing skill set and like my, my strengths and what I can do'.</p> <p>'[Sometimes] it was like 'How do we even know...what team we're on?' It... felt so disorganized... there were circumstances where you felt like [unfamiliar staff] didn't trust you as well... It was just a hard position to be in. To feel like you're the only one seeing the patient, but you aren't contributing to their care at all because no one's listening to you'.</p>
	b. Nurses struggled with lack of defined roles	<p>'There wasn't really clear-cut expectations aside from like basically like a double-sided sheet of 8x12 paper that explained to like the general care nurses like very, very basic safety things and like didn't encompass like what our role would really be with them'.</p> <p>'...but next time around... [general care nurses need to know] what our roles are going to be, or at least give us some basic tests that were ours to own because that would let the ICU nurse hand it over. Because the ICU nurses... some of them didn't know what to do with us'.</p>
	c. Challenges arose from being paired with different nurse partners each day, while also working with other unfamiliar staff	<p>'...we were placed with different nurses from shift to shift, and if an ICU nurse I was with one day had a bad experience with a floating nurse the day before, it was sort of like, 'I'll do everything I have to do,' and like, 'I'll let you know when I need help.' ...I just felt like sometimes I was just a body there, like I wasn't actually doing nursing things that I've been trained to do'.</p> <p>'There were multiple people signed in and out of the patient at multiple times over the course of the day. And like I don't know whether I'm just like working with an intern or working with like an attending as my responding... And nobody introduced themselves [or] trusted each other's experience...it was a really, really bad model in that way'.</p>
	d. Creation of function-specific teams was universally helpful	<p>'I liked the COBRA Team... they would come in, place new central lines and A lines... and it wasn't like the medical resident attempting to place the A line while the nurse is... in the room exposed longer... like these people actually knew what they were doing, and it was a quick thing'.</p> <p>'...we used the Proning Team and that was, that was a huge help especially when nobody knew how to do it in the beginning. We were watching videos on how to do it'.</p> <p>'So, the Spanish Language Team started doing updates... The provider would call the family with the medical team's update and like have the medical terminology but also like the colloquial terminology to like share information in, you know, a compassionate way. So, I, I just think that like that was honestly like the best thing that we could've done for these families, especially because... there was one day that like every single COVID patient on our unit was Spanish-speaking only'.</p>
2. Challenges of maintaining existing working relationships	a. Gained significant support from existing relationships made on original home units	<p>'[I was with] 3 of my closest friends... so just having them to be able to turn to and... bounce ideas off of or... even vent to... having some familiarity with one's colleagues also made it easier for nurses to support each other in providing patient care'.</p> <p>'And I remember...I kind of had the sense of like, "You know what, it's gonna be different than [home unit], but like it's gonna be great. All of my friends are gonna be there, like we're gonna work as a team, and we're gonna make it work"'. 'I think honestly the best thing that happened to me during COVID was I didn't realize like how great my like actual [home unit] coworkers were...everyone just came together so well and they were always there for me...we were always there for each other... I feel like everyone [was] such a family'.</p>

(Continues)

TABLE 2 (Continued)

Theme	Subtheme	Quotations
	b. Deployment disrupted the maintenance of staff relationships	<p>'I think that there should have been more check ins with the nursing staff that got floated, for sure, because you took them from their comfort home, you took them from doctors they know, you took them from a layout of a floor that they know and you dumped them in a unit that you had no clue about'.</p> <p>'There were a bunch of nurses over there that were definitely not okay. And that's where I wish that there had been like a better checking system where my manager from [home unit] could have acknowledged the fact that one of her staff on [surge ICU] was not doing well. We need to fix that situation'.</p>
	d. Preferred inter-peer support as opposed to institutional resources	<p>'Honestly there probably were [resources], I know MGH is great at that. But I didn't... seek it. I had my peers and I had you know the CNS... [who] was a great resource to me. If I ever felt nervous, I would feel comfortable going to her... I had my peers and my colleagues and my friends to kind of help you know guide me through it'.</p> <p>'I didn't reach out to any of those resources. I have used them in the past prior to this which were helpful... but I internalized a lot of it and when I found that it was too much for me to carry myself I just needed to get away from work. And I felt like once it was too much I had to- I think the thought of doing-going through EAP just like tied me more to it'.</p>
3. Role of nursing leadership in providing information and maintaining morale	a. Supported clinical practice through consistent informational emails and memos	<p>'... one email that I always read every week was [from] our CNS. [It was] almost like a Q and A sheet and it would go through and say different questions that maybe we would be asking.... And so it was quick, to the point, with a question, with an answer, and that was... super helpful'.</p> <p>'[The CNS] every day would come up with this... 10 page... template... like a guide almost, like helping the [general care] and ICU nurses... because every day things were evolving. Every day they were coming out with new medicines, or new practices, or you know like maybe proning isn't the best way to do it.... Every day things were changing, and she very quickly, like I mean she was up I think at 1:00 in the morning like even like editing this, this guide that she'd give us'.</p>
	b. Leadership was crucial for nurses' daily functioning and morale	<p>'...the huddles at the beginning throughout it with our staff and our nurse director were very good...we could talk to each other, express [concerns], [and] it was in real time as we were going through it. You can bring stuff up, support was given'.</p> <p>'[The Nurse Manager] acknowledged how hard [this experience was] was and I think that helped. Everyone just like needed to hear it'.</p>
	c. Deployed nurses serving under new leadership required additional support	<p>'...when we realized we were staying on our floor the news came out that the other floors had to switch. So we immediately started trying to make them feel welcome, like that was a concerted effort on the part of the nurses on [surge ICU]'.</p> <p>'I said this before about like just welcoming everybody to the unit... it just helped knowing that your management was like "We know that you can't be perfect nurses right now, we know your documentation isn't going to be perfect, like we're going to do the best we can with what we have, and that's what we can do for right now"'. </p>
4. Importance of institutional level acknowledgement of their work	a. Improper and insufficient acknowledgement from hospital administrators	<p>'[Senior leadership] came to our unit once and went to one side of the unit [and the nurses] were pretty harsh [saying], "Where have you been? We've been here now for a month. We haven't seen you once"'. </p> <p>'I can certainly say that finding out that our merit raises and retirement contributions... [were] frozen was definitely not very supportive...it feels like... after everything we went through... we're kind of getting the short end of the stick'.</p>

(Continues)

TABLE 2 (Continued)

Theme	Subtheme	Quotations
	b. Lack of understanding from family, friends, and media	<p>'So...we had a great relationship and camaraderie before, but I think COVID solidified that and I'm very grateful [for my coworkers] because I could be like, "Oh my god. Do you know what I had to do today?" And they could really understand it, where if I came home and tried to tell my family, they're like, "Oh, don't tell me that".'</p> <p>'...no one else around you understood it. They weren't there. And even now, like when people ask me... what was it like, [I say] it sucked. You didn't want to do it, but you did it'.</p>
	c. Nurses felt unseen and unheard	<p>'...there was just zero, zero acknowledgement for what we did. And still there has been none...We got nothing. They gave us a t-shirt... So, it's felt very bitter and sour... I know deep down that I was of service to the patients that needed me... but it is challenging to work for an organization...and to not be able to be given the recognition we as a staff deserve'.</p> <p>'I think my biggest thing... I would say is that you know not feeling recognized and not feeling like a valuable, other than my own personal recognition...I think that also has you know something to do with... the coping piece, you know, like if, if there was a lot of acknowledgement and recognition, like maybe we would be like 'Okay, well we went through this really tough thing but you know, it was for the greater good...' but like none of that has even transpired'.</p>

3.3 | Role of nursing leadership in providing information and maintaining morale

Nurses also drew concrete support from unit leadership, including nurse directors and clinical nurse-practice specialists, through their pre-shift staff huddles, check-ins, updated informational newsletters and emails. This support was especially critical for nurses who were deployed to new units and struggled with the perceived loss of support from previous managers.

Many nurses mentioned how nursing leadership supported their practice: 'I felt so protected and supported from [the CNS] and she would send us emails almost every night to give updates and it was clear communication that was delivered so efficiently and so frequently ... I think the changing nature of it... is what made it so scary, and being unsure if we were doing [the right thing] ... It just gave us a clear direction and that's why I also feel very lucky to have been on my unit [and] to have had that authority'. In addition to providing updated information, nurse managers set the emotional tone on their units: 'every morning at the beginning [she] would have a little huddle and welcome the nurses and say like "We're so grateful to have you here, this is a struggle, it's hard for all of us"'

3.4 | Importance of institutional-level acknowledgement of their work

Nurses spoke at length about how little was known about COVID-19 outside of the hospital and the fear, stigma, isolation and other challenges they faced as a result. This lack of public understanding made intra-institutional support even more important to them: '...people that weren't like inside a hospital don't have the same perspective as

we all do. I mean I feel like nobody could quite understand how hard it was if you weren't there and seeing it. So, I think like leaning on my co-workers has certainly been good for me'. In this context—and given the risks they faced in caring for COVID-19 patients—nurses looked for acknowledgement from administration.

In this context, most nurses reported feeling as though hospital leaders did not show meaningful appreciation. While some nurses described situations where hospital leadership was able to quickly provide what was needed, such as blood gas kits, on the whole, they were frustrated with what they perceived as a lack of support. Their disappointment centred on both the absence of material supports, such as suspended merit raises and retirement benefits, and lacking emotional support, as highlighted by this nurse: '...it would have been nice if [higher administration] came and just saw what we were doing in person and like said thank you in person. I know that's like very anti-COVID, but it, it would have gone so far'.

4 | DISCUSSION

The COVID-19 pandemic continues to place extraordinary demands on health care organisations (Chuang et al., 2020; Livingston et al., 2020). Leaders struggle with limitations of beds, supplies, PPE (Kamerow, 2020; Livingston et al., 2020) and staff (Alharbi et al., 2020; Morley et al., 2020). As new surges are taking place, health care workers are exhausted and the risk of burn-out remains high (Frawley et al., 2020; Fumis et al., 2017; Hamric & Blackhall, 2007; Jameton, 1993). To increase retention and limit psychological effects on staff, health care leaders—who were understandably challenged in their roles during the pandemic—can benefit from hearing staff experiences as they plan for future surges.

As the staff who spend the most time at the bedside (Hamric & Blackhall, 2007), the experiences of nurses suggest several clear ways forward for nurse staffing.

First, the roles and responsibilities of nurses—especially when working in pairs—need to be made clear and clinical reporting relationships distinctly defined. Findings suggest that function-specific teams (e.g. proning) can be highly effective in supporting bedside nurses and their workload. However, role expectations of ICU and non-ICU nurses were not consistently mutual during this surge; ICU nurses sometimes believed that their expertise was undervalued in making assignments on the unit to which they were deployed, while non-ICU nurses reported that their skills were not maximally utilized, in that they were not trusted to carry out assessments and interventions for which they were well prepared. Whenever possible, nursing pairs should work together across shifts to improve continuity and patient care. Nursing as a profession has always struggled with hierarchical roles, particularly in communicating upward (Chambliss, 1996). Effective communication in nurse–nurse encounters would do a great deal to resolve misunderstandings and conflict in real time (Jennings & Yeager, 2020).

Second, nurses may be best staffed and scheduled throughout the pandemic in ways that maximize their pre-existing relationships and hospital support systems. If nurses need to be deployed from one unit to another, they should be deployed in groups—ideally with their consent—and with ongoing contact with the director of their home units. To the extent possible, they would benefit from training and opportunities to shadow in new units before being responsible for patients on them. Anything nursing leadership can do to welcome nurses moved from other units and recognize the structural challenges in their assignments will help with morale and effectiveness. What must not be forgotten is that provision of hospitality from leaders to clinical staff and to one another translates to compassion in patient care (Mohrmann & Shepherd, 2012; Zoloth, 2007).

Third, participants stressed the importance of support from nursing leadership throughout this experience. Leadership practices that maximize visibility and support have the potential to promote and facilitate well-being for individuals and teams and can minimize moral distress and burnout (Rosa et al., 2020). Participants in this study identified the importance of nurse directors and clinical nurse-practice specialists in providing information, supporting staff and maintaining morale. At this institution, Circle Up Huddles now led by unit leaders (Rock et al., 2020) include interdisciplinary clinicians to identify needs and sources of stress at the beginning, middle and end of shifts so that problems support can be addressed in real time (Owen & Schimmels, 2020). Leadership behaviour and interventions, such as Psychological First Aid (PSA) (Owen & Schimmels, 2020), can create an environment of psychological safety through proactive communication, interpersonal connection and providing resources. Our findings highlighted the importance of enhancing a climate of psychological safety (Rosenbaum, 2019) and suggest that leaders should continue to build skills in these areas to support staff in remaining resilient during times of crisis.

Finally, hospital leadership might incorporate the voices of nurses when thinking about the division of labour and how to best connect with and appreciate staff. At this institution, administrative leadership has already engaged a process with nurses to learn about processes that were effective in enhancing patient care during the pandemic, and revise processes that were not as effective. For example, the roles of physicians in managing patient care were unclear from the beginning, in a perceived effort to conserve PPE; nurses reported that physicians and consultants were not entering patient rooms, and reliance on nurse and RRT medical assessments alone was supporting treatment changes. As PPE was believed more secure, this practice lingered. Social workers and chaplains were working off site, through iPad technology to reduce personnel. While well intentioned, it was clear that their absence burdened nursing practice.

Nurses repeatedly told interviewers that they participated in this study because they felt invisible and wanted to be heard: 'I sought you guys out because one of the other nurses said...it was the most cathartic thing that she had done since this happened...and I really appreciate [you] taking the time to ask these questions because it's validating to be listened to'. Another participant stated, 'I think people just need a platform to share... I think the more opportunities people have to share... the easier it is to process'. Leadership roles are incredibly challenged even in a hospital that has a nationally renowned disaster response plan (Hick et al., 2020). While well-intended leaders believe they are working hard on behalf of direct care professionals, knowing what is needed requires solicitation of honest, direct and ongoing communication.

4.1 | Strengths and limitations

This study utilized a collaborative approach with a research team including social scientists and nursing professionals. It leveraged in-depth, semi-structured interviews, which generated rich data about nurses' experiences. Coding the data both deductively and inductively generated not only answers to the initial research questions (e.g. about nurses' experiences of new staffing models) but also unanticipated findings (e.g. about nurses' desire for more institutional recognition). Despite these strengths, this was a small, exploratory study, with a mostly white, female sample of nurses at one urban hospital. Better understanding the experiences of frontline providers during the pandemic will require a larger, more diverse sample from multiple institutions.

5 | CONCLUSIONS

Findings suggest several policy implications at the organisational, state and federal levels, and call for clinical nurse representation in these leadership bodies. As the largest health care workforce and the backbone many health care systems, nurses rate highest

amongst the professions for honesty and ethics (Reinhart, 2020) and offer important operational and clinical perspectives that are essential for policy development. Leadership is needed at the nursing organisation level both in evaluating and in refining crisis staffing models. Models must be developed to balance patient and nursing needs, while maximizing the skill and expertise of critical care nurses. Finally, nurses need strong representation in legislative and regulatory initiatives that ensure material and human resources are available for future pandemics. Our ethical imperative requires us to honour the lived experience of nurses by building infrastructure that addresses the vulnerabilities experienced during this pandemic (Rosa et al., 2020).

Nursing, unlike other health professions, requires 24/7 attendance to patients in the acute care setting. COVID-19 was an unknown and rapidly progressing respiratory disease that acutely burdened hospitals, with nurses continuing to provide direct care for very sick patients. This institution is fortunate to have nursing and hospital administrators that approach leadership via the philosophy of a 'learning organization' in their openness to feedback (Garvin et al., 2019), as well as strive to create an ethical climate where nurses can live the ANA Code of Nursing in their practice (American Nurses Association, 2015; Tomajan, 2012) and maintain nursing's social contract with society (Fowler, 2015). Continued collaboration in planning for future surges remains a top priority for this ongoing pandemic and future disasters (Hick et al., 2020). This is a time for nurses to celebrate and for physicians, hospital leaders and society to fully appreciate the value of professional nursing practice.

5.1 | Implications for nursing management

Findings from this study show direct implications for nursing management. Clear and consistent communication from nursing leadership is key to increase opportunities for nurses to interact with hospital leaders in planning for future surges. This is underway at this institution through task force work groups including Employee Experience and RN-MD Collaboration and Communication. Thus, leaders are thinking carefully with clinical nurses about how to support and maintain morale among nurses in future surges. A programme of Resiliency and Listening rounds led by the Director of Patient Care Services Quality, Safety and Practice is also providing unit-based forums to hear and translate nurses' voices to hospital leadership; facilitators for these rounds include social workers, quality, safety and practice nurse specialists, EAP, nurse ethicists, innovation nurse specialists and chaplaincy. Therefore, our findings show that nursing management and hospital administration should emphasize listening to and amplifying the voices of their staff, while also offering support at all leadership levels. Programmes and resources that foster interdisciplinary communication and intra-staff camaraderie are essential to supporting the well-being of nurses at the bedside before, during and after times of crisis like these.

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With the exception of the first and last authors, authorship is alphabetized and alternating by institution to highlight the collaborative nature in which this manuscript was written.

CONFLICT OF INTEREST

There are no conflicts of interest associated with this manuscript.

ETHICAL APPROVAL

This study was reviewed and approved by the Institutional Review Boards at both Partners Healthcare (2020P001637) and Brandeis University (#21064R-E).

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REFERENCES

- Alharbi, J., Jackson, D., & Usher, K. (2020). The potential for COVID-19 to contribute to compassion fatigue in critical care nurses. *Journal of Clinical Nursing*, 29(15–16), 2762–2764. <https://doi.org/10.1111/jocn.15314>
- American Nurses Association (2015). *Code of Ethics for Nursing with Interpretive Statements*. <https://www.nursingworld.org/practice-policy/nursing-excellence/ethics/code-of-ethics-for-nurses/coe-view-only/>
- Chambliss, D. F. (1996). *Beyond Caring: Hospitals, Nurses, and the Social Organization of Ethics*. University of Chicago Press.
- Charmaz, K. (2006). *Constructing grounded theory: a practical guide through qualitative analysis* (Vol.), Sage Publications.
- Chuang, E., Cuartas, P. A., Powell, T., & Gong, M. N. (2020). "We're Not Ready, But I Don't Think You're Ever Ready". Clinician perspectives on implementation of crisis standards of care. *AJOB Empirical Bioethics*, 11, 1–12. <https://doi.org/10.1080/23294515.2020.1759731>
- Fowler, M. D. M. (2015). *Guide to nursing's social policy statement: Understanding the profession from social contract to social covenant*. American Nurses Association.
- Frawley, T., van Gelderen, F., Somanadhan, S., Coveney, K., Phelan, A., Lynam-Loane, P., & De Brún, A. (2020). The impact of COVID-19 on health systems, mental health and the potential for nursing. *Irish Journal of Psychological Medicine*, 1–7. <https://doi.org/10.1017/ipm.2020.105>
- Fumis, R. R. L., Junqueira Amarante, G. A., de Fátima Nascimento, A., & Vieira Junior, J. M. (2017). Moral distress and its contribution to the development of burnout syndrome among critical care providers. *Annals of Intensive Care*, 7(1), 71. <https://doi.org/10.1186/s13613-017-0293-2>
- Garvin, D. A., Edmondson, A. C., & Gino, F. (2019). Is Yours a Learning Organization?. *Harvard Business Review* (HBR Special Issue, Winter 2019), 86–93).
- Halpern, N. A., Kaplan, L. J., Rausen, M., & Yang, J. J. (2020). Configuring ICU's in the COVID-19 Era. *Society of Critical Care Medicine*, .1–34. <https://www.sccm.org/getattachment/03130f42-5350-4456-be9f-b9407194938d/Configuring-ICUs-in-the-COVID-19-Era-A-Collection>.
- Halpern, N. A., & Tan, K. S. (2020). United States Resource Availability for COVID-19. *Society of Critical Care Medicine* (p. 1–16). <https://www.sccm.org/getattachment/Blog/March-2020/United-States-Resource-Availability-for-COVID-19/United-States-Resource-Availability-for-COVID-19.pdf?lang=en-US>.

- Hamric, A. B., & Blackhall, L. J. (2007). Nurse-physician perspectives on the care of dying patients in intensive care units: Collaboration, moral distress, and ethical climate*. *Critical Care Medicine*, 35(2), 422–429. <https://doi.org/10.1097/01.CCM.0000254722.50608.2D>
- Hick, J. L., Hanfling, D., Wynia, M. K., & Pavia, A. T. (2020). Duty to plan: Health care, crisis standards of care, and novel coronavirus SARS-CoV-2. *NAM Perspectives*, 1–13. <https://doi.org/10.31478/202003b>
- Jameton, A. (1993). Dilemmas of moral distress: Moral responsibility and nursing practice. *AWHONN'S Clinical Issues in Perinatal and Women's Health Nursing*, 4(4), 542–551.
- Jennings, B. M., & Yeager, K. A. (2020). From fear to fortitude: Using the power within the nursing profession to fight COVID-19. *Nursing Outlook*, 68(4), 391–392. <https://doi.org/10.1016/j.outlook.2020.04.008>
- Kamerow, D. (2020). Covid-19: The crisis of personal protective equipment in the US. *BMJ*, 369, m1367. <https://doi.org/10.1136/bmj.m1367>
- Livingston, E., Desai, A., & Berkwits, M. (2020). Sourcing personal protective equipment during the COVID-19 pandemic. *JAMA*, 323(19), 1912. <https://doi.org/10.1001/jama.2020.5317>
- Matos, R., & Chung, K. (2020). *DoD COVID-19 Practice Management Guide* (p. 51).
- Mohrmann, M. E., & Shepherd, L. (2012). Ready to listen: Why welcome matters. *Journal of Pain and Symptom Management*, 43(3), 646–650. <https://doi.org/10.1016/j.jpainsymman.2011.09.004>
- Morley, G., Grady, C., McCarthy, J., & Ulrich, C. M. (2020). Covid-19: Ethical challenges for nurses. *Hastings Center Report*, 50(3), 35–39. <https://doi.org/10.1002/hast.1110>
- Owen, R. D., & Schimmels, J. (2020). Leadership after a crisis: The application of psychological first aid. *The Journal of Nursing Administration*, 50(10), 505–507. <https://doi.org/10.1097/NNA.0000000000000925>
- Reinhart, R. (2020). *Nurses Continue to Rate Highest in Honesty, Ethics*. *Gallup.Com*. Retrieved from <https://news.gallup.com/poll/274673/nurses-continue-rate-highest-honesty-ethics.aspx>
- Rock, L. K., Rudolph, J. W., Fey, M. K., Gardner, R., Minehart, R. D., Shapiro, J., & Roussin, C. (2020). "Circle Up": Workflow adaptation and psychological support via briefing, debriefing, and peer support. *NEJM Catalyst*, 1–13.
- Rosa, W. E., Schlak, A. E., & Rushton, C. H. (2020). A blueprint for leadership during COVID-19. *Nursing Management*, 51(8), 28–34. <https://doi.org/10.1097/01.NUMA.0000688940.29231.6f>
- Rosenbaum, L. (2019). Cursed by knowledge—Building a culture of psychological safety. *New England Journal of Medicine*, 380(8), 786–790. <https://doi.org/10.1056/NEJMms1813429>
- Ryan, G. W., & Bernard, H. R. (2003). Techniques to identify themes. *Field Methods*, 15(1), 85–109. <https://doi.org/10.1177/1525822X02239569>
- The New York Times (2020a). *Massachusetts Covid Map and Case Count*. The New York Times. Retrieved from <https://www.nytimes.com/interactive/2020/us/massachusetts-coronavirus-cases.html>
- The New York Times (2020b). *Coronavirus in the U.S.: Latest Map and Case Count*. The New York Times. <https://www.nytimes.com/interactive/2020/us/coronavirus-us-cases.html>
- Tomajan, K. (2012). Advocating for Nurses and Nursing. *Online Journal of Issues in Nursing*, 17(1), 4. <https://doi.org/10.3912/OJIN.Vol17.No01Man04>
- Zoloth, L. (2007). I Want You: Notes toward a Theory of Hospitality. In L. A. Eckenwiler, & F. G. Cohn (Eds.), *The Ethics of Bioethics*. (205–219). Johns Hopkins University Press. <https://doi.org/10.1353/book.3321>

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