

Ignoring Nurses: Media Coverage during the COVID-19 Pandemic

Julia Lynch¹, Nicholas Evans², Erin Ice³, and Deena Kelly Costa⁴

¹Department of Political Science, University of Pennsylvania, Philadelphia, Pennsylvania; ²Department of Philosophy, College of Fine Arts, Humanities and Social Sciences, University of Massachusetts–Lowell, Lowell, Massachusetts; and ³Department of Sociology, College of Literature, Science and the Arts, and ⁴Department of Systems, Populations and Leadership, School of Nursing, and Institute for Healthcare Policy and Innovation, University of Michigan, Ann Arbor, Michigan

ORCID ID: 0000-0002-7776-5349 (D.K.C.).



Nurses are a crucial resource in the care of patients with coronavirus disease (COVID-19). Estimates suggest that 5% (1) to 30% (2) of patients with COVID-19 require admission to an intensive care unit (ICU), where care is delivered by interprofessional teams of nurses, physicians, and respiratory therapists. Although all clinicians are important to high-quality care, ICU nurses spend the most time with patients, delivering much of the hands-on patient care. ICU nurses are critical for high-quality ICU care (3), including the care of mechanically ventilated patients (4). But they are also in short supply. ICU nurses typically care for one or two patients at a time, but data from more than 254 hospitals in New York and Illinois from December 2019 to February 2020 revealed chronic understaffing; average patient-to-nurse ratios in ICUs ranged from 1.5 to 4.0 (5). Furthermore, nurses may be at greater risk for shortages (via high risk for COVID-19 illness and loss from the workforce), given their prominent patient-facing role and risk for long duration of direct exposure to patients with COVID-19.

Yet from the start of the COVID-19 pandemic, news of shortages of ventilators,

tests, and personal protective equipment (PPE) captured the imagination of the public and policy makers, whereas the shortage of nurses who care for the sickest patients with COVID-19 went largely unnoticed. In this *Perspective*, we document the lack of attention to nursing shortages in media coverage and official guidelines during COVID-19. We also advocate for greater attention to resolving the acute shortage of nurses during COVID-19 by outlining concrete strategies policy makers can implement to address nursing shortages and prevent further loss of life from the pandemic.

The Hidden Shortage

Nursing shortages are not a new phenomenon. They are often cyclical, influenced by both economic growth and recessions (6). Furthermore, there is substantial evidence that shortages of ICU nurses are associated with poor outcomes (3, 5). However, since the onset of the COVID-19 pandemic, nursing shortages have received short shrift in the media and in guidelines for scarce resource allocation. Previous research has found that nurses are rarely featured in media coverage overall (only 2% of healthcare news articles reported nurses as a source, and only 13% mentioned nurses at all) (7), so the lack of attention to nursing shortages in media coverage during the first 6 months of the COVID-19 pandemic is perhaps not surprising. But the scale of the shortages merits much wider public and policy attention. Indeed, when accessing the George Washington University's healthcare staffing data estimator (8), an online tool that allows

for modeling and prediction of healthcare capacity during the pandemic, in August 2020, we found that at least four states—Wisconsin, Iowa, Oregon, and Utah—would experience a nursing shortage. This prediction model took into consideration baseline ICU staffing capacity and an attrition rate of 10% (a rate similar to that experienced in New York during the first wave due to nurses becoming ill with COVID-19 or leaving the workforce). Using these data, the model estimated that these states would experience a nursing shortage even when they were projected to have the fewest number of COVID-19 cases in a second wave. As we write, the second wave is in full force, and 22% of hospitals nationwide are facing staffing shortages (9). Despite these projections and the potential negative impact of nursing shortages on patient care, public and professional awareness of the issue remains low, preventing action that could mitigate the shortages.

To understand media coverage of resource shortages, including human resources, during COVID-19, we analyzed newspaper articles published in the top-10-circulation daily U.S. newspapers from December 15, 2019, to July 18, 2020. We searched the Dow Jones Factiva database for all news articles published during this period that contained terms related to COVID-19 and to shortages in the headline or first two paragraphs. We retrieved 763 unique articles using our search parameters. We then assessed all retrieved articles to eliminate those that did not pertain to COVID-19–related shortages in medical settings in the United States (e.g., articles related to toilet paper shortages, masks in a community setting, or shortages in

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Correspondence and requests for reprints should be addressed to Deena Kelly Costa, Ph.D., R.N., Department of Systems, Populations and Leadership, University of Michigan School of Nursing, 400 North Ingalls Street #4351, Ann Arbor, MI 48109. E-mail: dkcosta@umich.edu.

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another country) or that were duplicates. A total of 390 articles met this initial relevance screening and were retained for hand-coding. More detailed assessment of relevance resulted in a final sample of 207 articles that were then coded to identify the type(s) of shortages (i.e., of different kinds of equipment, supplies, and staff) discussed in the article. Table 1 displays the number of mentions of each type of shortage across the 207 articles in the final sample. We found that news coverage of shortages during the first 6 months of the COVID-19 pandemic was dominated by stories about PPE ($N = 106$; 39% of all shortages mentioned), ventilators ($N = 43$; 16%), and tests ($N = 43$; 16%). It largely ignored staffing shortages ($N = 19$; 7%), and when it did cover them, it rarely mentioned specific types of staff that might be in short

supply. Nursing shortages received specific mention in only 3 (1%) of the 207 articles that we coded.

We conducted a similar analysis of articles in medical and health policy journals focused on resource allocation under COVID-19 during the same period. For this analysis we searched the PubMed database for articles mentioning resources shortages or resource allocation in the title or abstract, retrieving 219 articles. Of these, 90 articles focused mainly on allocation of resources and were retained for coding (see Table 1 for results). In these articles, the allocation of ventilators ($n = 26$, 25% of all shortages mentioned), PPE ($n = 17$, 17%), and medications or vaccines ($n = 17$, 17%) were the most frequent topics. When staffing resources were discussed, most focused on the scarcity and allocation of

physicians ($n = 13$, 13%) or unspecified clinicians ($n = 15$, 15%). Only two articles (2%) focused on nurse staffing.

Professional organizations of critical care providers and academic bioethicists have issued joint statements on the allocation of scarce equipment but, much like journalists and academic researchers, have paid less attention to addressing staffing shortages. We analyzed joint statements on resource allocation from leading organizations charged with the response to the pandemic by searching the home page and advocacy pages of the following organizations: the Centers for Disease Control and Prevention, the National Academy of Medicine, the American Medical Association, the American Nurses Association, the American Hospital Association, the American Association of

Table 1. Shortages of devices, supplies, and staff in newspaper articles and expert guidance documents*

Category	Number of Shortages Mentioned in Newspapers (% of All Shortages Mentioned)	Number of Shortages Mentioned in Expert Guidance Articles Focused on Specific Resources (% of All Shortages Mentioned)
Reusable medical devices and supplies	64 (23)	26 (25)
Ventilators and component parts	43 (16)	20 (19)
Beds	10 (4)	6 (6)
Rooms	0	0
Laboratory capacity	0	0
Intravenous pumps	0	0
Unspecified/other equipment	11 (4)	0
Consumable medical devices and supplies	190 (70)	45 (44)
PPE	106 (39)	17 (17)
Tests	43 (16)	4 (4)
Medications	15 (6)	17 (17)
Blood	5 (2)	7 (7)
Oxygen	0	0
Intravenous saline	0	0
Unspecified/other supplies	21 (8)	0
Staff	19 (7)	32 (31)
Intensivists	0	0
Other physicians (M.D.s)	1 (0)	13 (13)
Nurses	3 (1)	2 (2)
Respiratory therapists	0	0
Certified Nursing Assistants (C.N.A.s)	0	0
Other clinicians	1 (0)	15 (15)
Infection control specialists	0	0
Palliative care services	0	1 (1)
Custodial and catering	0	0
Testing staff	0	0
Other nonclinical staff	0	1 (1)
Unspecified staff	14 (5)	0

Definition of abbreviations: COVID-19 = coronavirus disease; PPE = personal protective equipment.

We conducted searches to identify all unique articles about resource allocation under COVID-19 in the top-10-circulation daily U.S. newspapers in the Factiva database and academic journals indexed in PubMed from December 2019 to July 2020. For news articles, search terms were [(virus or pandemic or COVID OR coronavirus OR "corona virus") AND (triage OR scarc* OR allocat* OR shortage* OR ration*)], and for journals, search terms were [(covid OR coronavirus OR pandemic OR "corona virus") AND (triage OR allocat* OR scarc* OR contingen* OR ration* OR shortag* OR workforce)].

*Two hundred seventy-three shortages mentioned in 207 newspaper articles; 103 shortages mentioned in 90 expert guidance articles focused on specific resources.

Table 2. Suggested immediate and longer-term policy solutions to nursing shortages during the COVID-19 pandemic

	Who Should Act?	What Should They Do?	Why Will This Help?
Immediate actions			
Ensure appropriate, adequate PPE is available for the entire healthcare workforce	P, H	States should partner or coordinate with the federal government to ensure acquisition and distribution of necessary PPE. Hospitals should prioritize allocating PPE to staff who must be in direct contact with patients in order to do their jobs.	Reduce attrition by protecting nurses and other patient-facing clinicians from becoming ill
Provide wellness services and programs for staff	H	Hospitals should incorporate social workers to provide support for the ICU staff; identify ways to assist nurses at home (e.g., by providing dependent care); provide counseling for the difficulties of caring for patients with COVID in an intense, high demand setting.	Reduce attrition by offsetting the extreme physical and mental toll of COVID-19 on clinicians
Temporarily extend scope of practice via loosening of regulation and licensing regulations	P	States should suspend and/or expand scope of practice laws, especially for licensed practical nurses; issue emergency regulations to allow medical and nursing students to train as respiratory therapist extenders or nursing assistants; and allow for faster healthcare licensure so clinicians from other states could fill staffing shortages. The federal government should coordinate to address staffing shortfalls across state lines.	Temporarily increase the supply of clinicians and support staff where they are needed
Protect nurses from legal jeopardy in the event that they are required to practice outside their training	P, H	State and federal policy actors should indemnify nurses from potential legal ramifications when providing bedside care to patients with COVID-19. Hospital administrators should reassure nurses that they are adequately covered under their hospital indemnity plans.	Reduce attrition due to concerns about legal liability when practicing outside their training
Train all nurses currently employed in hospitals in introductory ICU skills	H	Hospitals should ensure that all nurses who might eventually be called into service to care for patients with COVID-19 are trained in the most common ICU skills (e.g., use of ventilators, commonly used medications, nursing considerations for ventilated patients). This includes just-in-time training as well as training for all nurses, regardless of home unit.	Expand the availability of qualified staff by ensuring that when a surge occurs, there are more nurses on standby who are familiar with the ICU environment
Create local hospital-based teams to assist the ICU nurses and respiratory therapists	H	Hospitals should train teams of staff to participate and lead efforts in the ICU (e.g., proning teams—groups of nurses and assistants trained to move patients with COVID-19 onto their stomachs).	Relieve burden on ICU nurses by training additional staff to participate in specific, predefined care practices in ICU settings
Longer-term actions			
Permanently extend scope of practice	P	State policy actors should consider adopting regulations that permanently extend scope of practice for advanced practice nurses.	Expand capacity by providing a steady supply of advanced practice nurses to care for patients in the community and ICU settings
Invest in nursing education	P	Policy actors should create incentives for students to choose nursing (e.g., via tuition remission or low-interest loans for nursing students); provide funding to increase the number of nurse educators (Ph.D.- and D.N.P.-prepared nurses); and expand on existing solutions for federal funding of advanced practice nurse education such as the graduate nurse education demonstration project carried out by the Centers for Medicare and Medicaid Services.	Expand the nursing supply through national workforce development plans to ensure training the next generation of nurses

Definition of abbreviations: COVID-19 = coronavirus disease; D.N.P. = Doctor of Nursing Practice; H = hospital administrators; ICU = intensive care unit; P = state- and federal-level policy actors; Ph.D. = doctor of philosophy; PPE = personal protective equipment.

Critical-Care Nurses, the Society of Critical Care Medicine, the American Thoracic Society, the American College of Chest Physicians, and the Hastings Center. Through this search, we identified 29 relevant statements for qualitative content analysis. Most statements focused on the conservation and allocation of PPE, ventilators, and beds. When statements mentioned or advocated planning for staff shortages, they did not mention specific policy or procedural changes to address the staffing shortages besides reallocating from other services (10). Only one document, a letter to Congress by the Nursing Community Coalition on March 19, 2020, provided concrete policy recommendations (e.g., reauthorization of the Title VIII Nursing Workforce Program, changes to allow full practice authority for advanced practice nurses, increasing the emergency public health corps, and funding childcare for healthcare workers).

Thus, we found that across news coverage, academic journals, and professional guidelines, nurse staffing shortages were rarely mentioned and discussed as part of COVID-19 planning and preparedness. These data and implications are in stark contrast to the central role that nurses play in patient care as well as the fact that they are the largest healthcare workforce and make up the majority of a hospital's budget.

One reason for the lack of attention to nursing shortages may be the systematic undervaluing of care work, especially when performed by women or people of color; about 90% of nurses are women and 45% of nursing assistants are people of color (11). Another reason for the lack of attention could be that, unlike equipment such as ventilators or ICU beds, caregiving labor is difficult to quantify. Indeed, a number of government bodies have released guidance on how to deal with equipment scarcities, but they have been slow to advise on how to triage human resources. The U.S. Centers for Disease Control and Prevention, for example, did not release its first guidance on staffing shortages until April 6 (12), well after hospitals had begun to experience serious shortages of ICU nurses and other staff.

What Can Be Done to Alleviate Nursing Shortages under COVID-19?

Healthcare capacity projections performed after the initial surge of the pandemic suggested that most regions would have adequate nurses to cope with another surge (13), but these projections tended to assume that any nurse has the skills needed to care for critically ill patients with COVID-19. In fact, although a given locale may have enough nurses in general, having enough nurses with the necessary ICU expertise in the event of another surge has turned out to be an issue in many regions of the country. Recently, a few high-profile articles in the news media have cast a spotlight on the nursing shortages emerging during the late fall surge (14). Although the recent attention to the issue in the media is very welcome, acting on this information is now critical.

Concrete policy solutions to mitigate nursing shortages are desperately needed. But there is not time to train enough ICU nurses to meet the anticipated need. We argue that both immediate and longer-term solutions to the care crunch are needed and require action by both government regulators and hospital administrators to protect staff and increase the supply of the healthcare workforce. Table 2 summarizes our own recommendations, based on the literature on staffing shortages and hospital planning and preparedness, for actions that policy makers and hospitals could take to alleviate nursing shortages. These recommendations focus on ways to prevent attrition, reallocate and upskill available personnel to extend ICU nursing capacity, and ensure a longer-term supply of qualified nurses.

State- and federal-level policy actors should consider policies that 1) ensure adequate supply (of staff and equipment), 2) protect the nurses currently working, and 3) invest in nursing education. Coordination across state lines (or federally) is required to ensure that adequate PPE and an adequate supply of nurses are available. Early in the pandemic, the governors of Michigan and New York signed executive orders to suspend and/or expand scope of practice laws, especially for licensed practical nurses who

typically work under registered nurse (R.N.) supervision, to increase the overall supply of clinicians. But worryingly, some states (e.g., Michigan), rescinded their expanded scope of practice legislation despite the fact that COVID-19 cases are increasing. Protecting nurses given the limited PPE, and extenuating working conditions during COVID-19, requires indemnifying nurses from any potential legal ramifications. Unlike physicians, many nurses do not carry individual malpractice insurance and are instead covered by their hospital policies (15). Significant investment in nursing education is essential as a long-term solution; providing incentives for students to choose nursing and funding to increase the number of nurse educators to teach the next generation of nurses are key strategies. Creative solutions for federal funding of advanced practice nurse education may be useful for national workforce development.

Hospital-based policies should focus on minimizing staff attrition and maximizing the available personnel. They should also focus on providing adequate PPE and safe working environments, wellness services and programs for staff that address multiple stressors (i.e., assist nurses at home [e.g., with dependent care] or provide counseling for the difficulties of caring for patients with COVID-19 in an intense, high-demand setting), and local hospital training and team development. All nurses currently employed in hospitals must have introductory ICU skills training now and just-in-time training when redeployed so that when a surge occurs, there are more nurses on stand-by who are familiar with the ICU.

Even if the ventilators, PPE, and COVID-19 tests that received attention in the media were plentiful, a scarcity of nurses would result in preventable deaths. Key actions can be taken now to prevent dire staffing shortages. Whether in the media or in workforce planning or preparedness, ignoring human resource shortages, and particularly nursing shortages, that are vital to the nation's success in managing the COVID-19 pandemic may have fatal consequences. ■

Author disclosures are available with the text of this article at www.atsjournals.org.

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