A young nurse was on my team at the COVID-19 vaccination clinic where I was volunteering. Prior to volunteering, she’d been hired right out of a prestigious nursing school to work in an ICU. Then COVID hit. Her experience led her to leave the profession. She told me, “I will never go back. I will never work in a hospital again.”

I asked, “What caused you to feel this way?”

She said, “I was on an island. As soon as I put on my PPE, I couldn’t get help when I needed it. I couldn’t get anyone on the phone. I was in constant stress of trying to care for patients and not having the supplies I needed when I needed them.”

Tears brimmed in her eyes when she said, “I felt like I was alone.”

She now works in a position well below her licensure and aspirations.

Listening to, Supporting, and Protecting Nurses

More than a year after COVID-19 began surging around the globe, the World Health Organization has extended the Year of the Nurse from 2020 to 2021 in recognition of the increased visibility of nurses’ contributions.

Nurse leaders have always focused on providing resources while creating safe, effective workspaces. The pandemic has sometimes rearranged those priorities and challenged the safe environment. On nursing forums, nurses describe an absence of resources, infrastructure, and policies. They talk about a continued lack of PPE, staffing, support for mental health, infection control practices, and more.

In the American Hospital Association 2021 Environmental Scan, nurse leaders cite the top challenges during the pandemic as:

• Communicating and implementing changing policies (55%)
• Surge staffing, training, and reallocation (54%)
• Emotional health and well-being of staff (50%)
• Access to personal protective equipment and other supplies (47%)

As nurses embrace the mantra “Never Again” and consider whether to continue working in healthcare, the need for change is clear. We must heed the call from all corners to listen to, support, and protect nurses.
Addressing Burnout by Addressing the Work Environment

The World Health Organization defines burnout as “… a syndrome conceptualized as resulting from chronic workplace stress that has not been successfully managed.”

It’s sometimes tempting to try to address burnout by focusing on the burned-out individual. The Atlantic recently published the article “Only Your Boss Can Cure Your Burnout” by Olga Khazan. The article shifts the focus from the individual experiencing burnout to what needs to change in the work environment. Stressors in the work environment are why nurses have burnout. We need to look at the complexity of workflows and the dysfunction of the environment if we’re ever going to effectively address burnout.

Throughout the COVID-19 pandemic, nurses have been recipients of kind gifts such as pizzas, donuts, and lip balm, and signs saying, “healthcare heroes work here.” While they appreciate the recognition, what they really want is the work environment to be better – for the task load to be eased.

The article in The Atlantic cites perspectives from Christina Maslach, Professor Emerita of Psychology at UC Berkeley and the pioneer of research on job burnout. Maslach has described six sources of burnout. Two of the sources involve having a limited sense of control or influence over one’s own work, and feeling over stretched with too much work to do or work that is overly complex or urgent.

Much of my work on cognitive burden and nurses’ acceptance of technology at the bedside has focused on easing the burden of workflow – using technology solutions or creating processes that allow nurses to create order out of chaos. My research has shown that communication powers all workflow.

While difficult, inefficient, or absent communication is the primary cause of a chaotic work environment, effective communication is the primary foundation of a safe and effective work environment.

In this report, I propose solutions in six areas to help nurse leaders take steps to adjust the norms and expectations that contribute to nurses’ stress and cognitive burden. These solutions factor in lessons learned from the COVID-19 pandemic and include:

1. Keeping nurses protected and safe
2. Empowering nurses with control over patient-family communication
3. Reducing the stress of crisis care
4. Enabling smooth movement from novice to expert and back
5. Protecting nurses from workplace violence
6. Measuring and solving for communication task load

The report concludes with an invitation to nurses to make their voices heard as part of an unprecedented study that aims to measure how the effort involved in communicating affects nurses mentally, physically, and emotionally. This will give us insight and a body of knowledge toward reducing nurses’ stress and cognitive burden going forward.
Keeping Nurses Protected and Safe

One nurse working in a COVID-19 unit wrote a poignant description of nurses’ need to feel protected and supported. “The hard part about wanting to be a nurse is that you walk into a patient’s room every day and you want to provide excellent care with every interaction,” she wrote. “When there’s a barrier to that, it’s crushing to your practice. We are assigned to work in unfamiliar units, with patients who are outside our expertise, without any training. We’re lost.”

We need to address the mental fatigue and moral injury this pandemic has wrought on our healthcare workers. It’s helpful to give people a safe place to go or a dedicated expert to talk to. There is nothing wrong with suggesting people meditate or listen to a mindfulness recording. But if nurses take five minutes every hour to go collect themselves and they come out of that space and the work environment is still completely chaotic, newfound serenity can’t be sustained.

What nurses need most are tools to minimize the stress and make it easier to work.

I often ask nurses, “If you think about the last 24 hours, what is the one thing that made it the hardest to do your job?” The answer is, almost always, “looking for people.” Trying to find the right people and figuring out who to call for a specific clinical situation consumes an enormous amount of a nurse’s time.

Protect the practice by equipping nurses with the tools they need to do the fundamentals of the job, like finding people and resources. We need to enable an efficient workflow through communication tools and protocols so nurses can do their job effectively, even in unfamiliar places. Nurses need to be able to find and call the people they need, and get the resources they need, as urgently as they’re needed.

Nobody should feel as if they’re on an island. Nobody should feel alone and unsafe.

Empowering Nurses with Control over Patient-Family Communication

Nurses field phone calls from patients’ family members all shift long. If they took all the calls, that’s all they would do, especially in situations where a patient has a large network of loved ones.

When patients are separated from their families, a nurse can be overwhelmed with calls from family members who want to know how their loved one is doing.

Allow nurses to have control by equipping them to schedule communication for many people across multiple time zones through a protocol that eases the stress and strain for everyone.

A nurse can create a plan for a patient that says, “I’ll do my 7:30 assessment and wait until the physician makes their rounds sometime between 9:00 and 10:00. Then I’ll send a message to all the people on the patient’s contact list to let them know how he’s doing this morning. I’ll notify them again at 3:00 p.m., or earlier if his treatment plan changes. I’ll update them again at 6:00 p.m. before I leave my shift. I can manage that, and his family will know he’s getting great care.”

This way, everyone on the patient’s contact list knows they’re going to get a message and when. It eases the stress for the family and gives the nurse control of that communication experience. It removes the ongoing burden of, “Can you take a phone call?”

Equipping nurses to make family communication part of their rounding gives the power back to nurses. This workflow requires software designed for HIPAA-compliant communication with families and loved ones. Here, an investment in smoothing communication pays huge dividends in easing task-specific work for the nurse and increasing satisfaction for the patient and family.
Reducing the Stress of Crisis Care

The COVID-19 pandemic made it common for nurses to be pulled from their routine work environments and inserted into unfamiliar work environments. Staffing is the most pressing concern for everyone reading this, with the problem increasing. Top of mind for all nurse leaders is the need to ease the burden on the existing staff while engaging in the continuous search for more nurses. When we combine the need for more nurses with the need to retain nursing staff, the solution options become complex, sometimes appear disparate, and always keep us awake at night.

How do we prepare for the next time we’re faced with managing 100 times the volume of patients that we normally triage? How do we ease the mental and physical load of all staff?

Hospital leaders must work with patient care nurses to develop plans for serving critical care patients in a crisis such as a pandemic, natural disaster, or act of violence.

Some nurse leaders have proposed cross-training, but it’s not enough. Nurses orienting to an unfamiliar unit in a crisis environment don’t know who to call to get the support they need. They don’t know who’s on call. They don’t know phone numbers. Often, they haven’t worked at the bedside in years and are profoundly overwhelmed.

All hospitals have emergency plans for natural disasters, for fires, for acts of violence – and now, for pandemics. Communication must be part of all emergency preparedness plans. And in a crisis, everyone involved in delivering patient care should work with the same communication protocols hardwired within a unified software ecosystem that’s already in place.

The unfamiliar is the enemy in a crisis. Don’t use specially designated walkie-talkies, pagers, or other one-off approaches to manage communication in a crisis. Using unfamiliar, disjointed communication methods only adds to the stress. No one should have to manually patch together messages, pages, and calls from disparate systems. In crisis communication, there’s no room for the toil of paging one group, calling another group, and working through a list of numbers for another group. Everybody needs to use the same kind of software.

Protocols for crisis communication can be preconfigured or created rapidly on the fly for hands-free devices and smartphones that are connected through a unified software platform. Wearable devices that allow frontline workers to communicate hands-free under protective gear are essential PPE technology (PPET).

Give nurses the protective equipment they need, and develop a comprehensive plan for crisis care that includes crisis communication – and input from frontline nurses. Policy must be hardwired with tactical equipment and tools, because under stress, policy is one of the first things to go.

Enabling Smooth Movement from Novice to Expert and Back

Early in the COVID-19 pandemic, hospital leaders discovered they had rapidly changing protocols and workflows that required innovative solutions and rapid response to address. Nurses have become frustrated by what hospital administrators are asking them to do: Work in unfamiliar environments using unfamiliar tools and protocols, with people with whom they have not established trust. They are being asked to work in a context that increases their stress and perhaps makes them feel inadequate or unprepared, which leads to a very high level of cognitive load.

I have talked about the effects of cognitive burden on work and response for several years now.

Cognitive Load Theory provides context for how we learn. When we are working on a problem, especially an unfamiliar one, we depend on our working memory, which is very limited in its capacity and has a duration of eight to 60 seconds. The less familiar we are with a task, the more we depend on working memory to help juggle the relevant information. Exhau$tion of the short-term memory leads to cognitive burden, which leaves us prone to error, frustration, or decline in capacity in performing unfamiliar tasks.

In contrast, when we have expertise with a task, most of what we need to know is stored in long-term memory and we can complete the task on autopilot.

In addition to providing context for how we learn, Cognitive Load Theory also provides a useful framework for understanding how the pandemic is playing havoc with our mental functioning. The cognitive load of much of nurses’ work has increased. Nurses are spending more time having to think deliberately and consciously – more like a novice than an expert, which is exhausting. They are routinely moving from novice to expert and back, which reduces their ability to store information, manage stress, and renew when fatigued.
You might not be able to avoid reassigning nurses to unfamiliar areas. But you can make unfamiliar areas easier for nurses to navigate by providing tools that allow them to reach the people and resources they need, even if they don’t know names or phone numbers, and even while wearing PPE. You can’t always prepare nurses optimally for an unfamiliar context. But you can provide tools that make it easy to reach experts and find support.

### Protecting Nurses from Workplace Violence

Healthcare workers face what National Nurses United has called an epidemic of violence. The pandemic has only intensified the situation. According to the International Committee of the Red Cross (ICRC), more than 600 incidents of violence and aggression related to COVID-19 were recorded against healthcare workers, patients, and medical infrastructure between February 1 and July 31, 2020.

Workplace violence in healthcare is a complex issue to solve for but one that must be aggressively addressed. There are three components to consider:

- **Culture**
- **Policies and protocols**
- **Technology tools that enable instant communication and response**

When I speak with large groups of nurses who have experienced workplace violence, I hear an uncomfortable and widely acknowledged sentiment. That is, a culture of looking the other way or expecting nurses to “just cope” with violence has been allowed to continue, and this is unacceptable.

There is no other profession asked to consider workplace violence as “just part of the job.” Nurse leaders must boldly call out, confront, and resolve all manner of violence in the workplace. When a nurse is injured, there must be proper physical and emotional support from all levels in the organization.

Everyone has a policy or protocol to follow when a patient becomes violent. If protocols were enough, the problem would be solved. We continue to grapple with how to prevent or stop violent acts and how to get help to the nurse in crisis in a matter of seconds. Technology that facilities instant communication to alert security or nearby coworkers is essential to support nurses in these complex situations.

As part of a multidisciplinary approach to violence prevention, healthcare workers must have the ability to summon help in a moment of threat. This is why Vocera has developed wearable communication technologies that enable nurses to use voice commands to call for help instantly, or to discretely press a panic button to summon support without alerting the perpetrator who is escalating toward violence.

### Measuring and Solving for Communication Task Load

Hospital leaders need nurses to be able to focus on doing the work that needs to be done. And yet we read of nurses more afraid of the decisions hospital administrators are forced to make than of a deadly virus, and of shifts that begin and end with nurses crying. Rather than look away from this very uncomfortable feedback, we must walk into the storm and have conversations, ask for feedback, meet them halfway where possible, and address the work environment.

At every CNO roundtable I attend, I meet nurse leaders who are perplexed and frustrated over how to fix what’s wrong. They are experiencing everything their staff is suffering and more. They are asking for workable solutions.

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The more we listen to nurses’ voices, the better we can support and protect them.

Effective communication is the underpinning of everything that happens in a hospital. Based on data and the feedback I’ve received from bedside nurses, I believe we can address a lot of what’s wrong if we measure and solve for communication task load.
My plan is to measure nurse communication in hospitals using the NASA Task Load Index (TLX).

The NASA TLX has been used to measure the task load of workers in high-intensity jobs, such as pilots and air traffic controllers. It’s been used to measure the task load of ICU nurses — and this is the first time it will be used to measure the task load involved in clinical communication.

Nurses will be able to download the tool on their smartphone and answer the tool’s seven questions while thinking about a clinical communication task or effort during their most recent 12-hour shift. For example, trying to reach a physician or obtain a lab result.

The NASA Task Load Index (TLX) measures on 6 dimensions, shown in the graphic below.

<table>
<thead>
<tr>
<th>NASA Task Load Index</th>
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| Hart and Stawarz’s NASA Task Load Index (TLX) method assesses work load on the 7-point scale, with 1 denoting very low load and 7 indicating very high load.

<table>
<thead>
<tr>
<th>Name</th>
<th>Task</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mental Demand</td>
<td>How mentally demanding was the task?</td>
<td>Very Low - Very High</td>
</tr>
<tr>
<td>Physical Demand</td>
<td>How physically demanding was the task?</td>
<td>Very Low - Very High</td>
</tr>
<tr>
<td>Temporal Demand</td>
<td>How hurried or rushed was the pace of the task?</td>
<td>Very Low - Very High</td>
</tr>
<tr>
<td>Performance</td>
<td>How successful were you in accomplishing what you were asked to do?</td>
<td>I know - I failed</td>
</tr>
<tr>
<td>Effort</td>
<td>How hard did you have to work to accomplish your level of performance?</td>
<td>Very Low - Very High</td>
</tr>
<tr>
<td>Frustration</td>
<td>How mucrful, discouraged, irritated, stressed, and annoyed were you?</td>
<td>Very Low - Very High</td>
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The more we listen to nurses’ voices, the better we can support and protect them, and the better we can engage the creative thought process of nurse leaders. Join me in this conversation. Work with me as we ask the questions and look for answers to improve communication and ease the work of nurses caring for patients and families.

I welcome you to contact me on LinkedIn if you’d like to be part of this study, and to follow me on Twitter @rhondacno. Our teams at Vocera are here to help, and I want to hear from you.

Rhonda Collins, DNP, RN, FAAN has served as Chief Nursing Officer at Vocera since January 2014. As CNO, she is responsible for working with nursing leadership groups globally to share clinical best practices, help them better understand the value of Vocera solutions, and bring their specific requirements to our product and solutions teams. Prior to joining Vocera, Rhonda was vice president and business manager for Fresenius Kabi, USA, responsible for the launch of the company’s intravenous infusion pump in the United States. She also led the American Nurse Project, elevating the voice of nurses across the country.

Through her previous experience as the clinical executive at CareFusion and as vice president of women and children’s services at Baylor University Medical Center, she gained deep experience maximizing market share and profitability while building on best clinical and business practices.

Dr. Collins holds a Doctor of Nursing Practice degree from Texas Tech University Health Sciences Center and a Master of Science in Nursing Administration from the University of Texas. In 2017 and 2018 Becker’s Hospital Review included her on its “Women in MedTech to Know” and “Female Healthcare IT Leaders to Know” lists. In 2019 she was honored as one of the 100 most influential women in Silicon Valley, receiving a 2019 Women of Influence Award from the Silicon Valley Business Journal. In 2019, Rhonda was inducted into the American Academy of Nursing as a Fellow.

Rhonda has been a registered nurse for 31 years. She is a frequent speaker on the evolving role of nurses, the importance of communication, and how to use technology to improve clinical workflows and care team collaboration.

About Vocera

The mission of Vocera Communications, Inc. is to simplify and improve the lives of healthcare professionals, patients, and families. Founded in 2000, Vocera provides solutions that help protect and connect team members, simplify workflows, increase efficiency, enhance quality of care and safety, and humanize the healthcare experience.

More than 2,300 facilities worldwide, including nearly 1,900 hospitals and healthcare facilities, have selected Vocera solutions to enable their workforce to communicate and collaborate with co-workers and engage with patients and families. Mobile workers can choose the right device for their role or task, including smartphones or one of the company’s wearable communication devices, and use voice commands to easily reach people by name, role, or group. The hands-free Vocera Smartbadge was named to TIME’s list of the 100 Best Inventions of 2020. The Vocera Platform can integrate with more than 150 clinical and operational systems, including electronic health records, nurse call systems, ventilators, physiological monitors, and others. In addition to healthcare, Vocera solutions are found in aged care facilities, schools, luxury hotels, retail stores, power facilities, libraries, and more.

Visit [www.vocera.com](http://www.vocera.com) to learn more, and follow @VoceraComm on Twitter.

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Citations