

# Stress and Resilience Among Healthcare Workers During the COVID-19 Pandemic: Consideration of Case Studies

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## Abstract

The COVID-19 pandemic has caused a significant increase in stress for frontline healthcare workers, including rehabilitation workers. Contributing factors include disrupted workflows, heavier workloads, increased time restraints, and fear of contracting/passing the virus. Prolonged high stress levels can produce adverse health outcomes when unaddressed. Resilience can mitigate the negative effects of prolonged stress. Four healthcare workers relate their experiences from the frontlines of the pandemic, discussing their strategies to build resilience and maintain health. Highlighted strategies include mindfulness (the purposeful act of paying attention to the present moment without judgment), gratitude (the practice of being grateful for the positive things in life), self-care (the maintenance of a healthy lifestyle using physical, psychological, and emotional tools), and social support (the sense of belonging that comes from being cared for and valued). These strategies reduce negative outcomes produced by elevated stress levels and promote resilience in frontline healthcare workers.

**Keywords:** Stress; resilience; healthcare workers; COVID-19.

## Introduction

The COVID-19 global pandemic has caused a healthcare crisis with significant impact on frontline health workers, especially nursing staff (Master et al., 2020; Shahrour & Dardas, 2020). COVID-19 played a dramatic role in increasing the already high levels of stress for all healthcare workers on inpatient units and outpatient settings, including rehabilitation nurses (Stein et al., 2020). The elevated stress levels nurses are experiencing can be attributed to disrupted workflows (Sun et al., 2020), heavier workloads (Shoja et al., 2020; Sun et al., 2020), time restraints to care for their patients (Sun et al., 2020), additional work hours (Master et al., 2020; Sun et al., 2020), fear of contracting the disease and passing it to their loved ones (Master et al., 2020; Shechter et al., 2020; Sun et al., 2020), and death of coworkers and patients (Sarafis et al., 2016). For rehabilitation nurses particularly, stress also comes

from the loss of inpatient rehabilitation units, whether through closure or conversion to COVID-19 acute care (Stein et al., 2020). Outpatient rehabilitation settings also closed, and patients were seen via telehealth, creating a new way to care for rehabilitation patients (Stein et al., 2020).

Working in prolonged stressful conditions can cause trauma and have negative health effects, including physical changes in the brain. When a person encounters stressful situations, their body gives a response, releasing stress hormones to instigate an inflammatory response to deal with the situation and regain equilibrium (Ménard et al., 2017). If the stressor is too overwhelming or prolonged, the body may not be able to reestablish equilibrium. The continuous release of hormones changes the brain structure to maintain the high levels of stress. This begins to damage the body's organs and other tissues, which can result in an impaired immune system and negative physical and psychological outcomes (Ménard et al., 2017).

Because nurses on the frontline of COVID-19 are working with heightened levels of stress, they are more susceptible to the negative health effects of stress (Shahrour & Dardas, 2020; Shechter et al., 2020). Individuals subjected to prolonged levels of occupational stress are more susceptible to many illnesses, including cancers, heart disease (Ménard et al., 2017), sleep disturbances (Kalmbach et al., 2018), depression, and anxiety disorders (Maharaj et al., 2019; Ménard et al., 2017). In addition, nurses with high levels of stress and low resilience give poorer quality of care, have

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poorer caring behaviors (Sarafis et al., 2016), and have higher rates of burnout and attrition (Dyrbye et al., 2019).

Despite the stressful working conditions and potential for harm, nurses and support staff continue to report to their jobs and care for patients affected by the novel coronavirus. They can do this because of resilience. Resiliency in nursing is the ability to adapt to a stressful situation, maintain psychological health, and continue to give effective and quality care to patients (Cooper et al., 2020). It is important to note that resilience is not avoiding stress but rather having the ability to effectively meet the stressor and bring the body back into a homeostasis equilibrium. Resilience is not an innate characteristic but rather something that can be taught and learned. Like stress, resiliency techniques can change the structure of the brain. Increased well-being, resilience, and stress reduction strategies for healthcare professionals have been shown to benefit not only the individuals themselves but also patients, teams, and health care institutions (Mealer et al., 2012; Rogers, 2016). Many ways to practice resilience can be tailored to the individual and called upon when needed.

## Literature Review

Multiple strategies have been shown to increase resilience, including mindfulness, gratitude, self-care, and social support. Despite the current challenges and increased stress, the case studies presented here demonstrate healthy coping behaviors and tools healthcare workers can use to increase their resilience. Evidence in the literature shows that these tools are beneficial, effective, and relatively low cost.

Mindfulness has been shown to increase resilience in nurses (Mealer et al., 2014; Wald et al., 2016) and is a strong predictor of well-being (Klussman et al., 2020). Mindfulness is the purposeful act of paying attention to the present moment without judgment (Kabat-Zinn, 2003). This practice helps one to live in the moment rather than to worry about the future or to regret the past. Mindfulness can be practiced in any setting by bringing purposeful attention to feelings, emotions, physical sensations, or surroundings. This allows for self-regulation and connection, leading to a quieting of oneself and an increased ability to cope with stress (Reina & Kudesia, 2020).

Gratitude is the practice of being grateful for the positive things in life and has been shown to increase well-being and boost happiness (Watkins et al., 2015). Practicing gratitude has been shown to create both structural and functional changes in the brain and to benefit both physical and mental health (Kini et al., 2016). Benefits of practicing gratitude include grounding in the present moment, strengthening connection to others, increasing feelings of self-worth, and even blocking negative emotions and improving sleep

quality (Allen, 2018; Boggiss et al., 2020). Gratitude can be enhanced by daily reflecting on positive things outside oneself to be thankful for, keeping a daily gratitude journal, and writing gratitude letters. Positive psychology tools that incorporate daily reflection and journaling help the brain identify and focus on the good in life despite an inclination to remember the negative (Sexton & Adair, 2019). Practicing gratitude is a simple, powerful tool that can reduce burnout symptoms, build resilience, and improve overall well-being and mental health (Seligman et al., 2005).

Self-care is crucial to the health and well-being of nurses (Thacker et al., 2016). Self-care assists with maintenance of a healthy lifestyle by incorporating daily practices of physical, psychological, and emotional tools (Abelard & Black, 2021; Mealer et al., 2012). These “lifestyle medicine” tools include nutrition, sleep, exercise, spirituality, and connection. All have been shown to make meaningful impacts on physical and mental health and mitigating stress (McGrady et al., 2019).

Social support also builds resilience in nurses. Social support is the sense of being cared for and valued, giving one a feeling of belonging (Cobb, 1976). Social support can be found through family, friends, and coworkers. Social support improves mental health, reduces stress levels, and reduces burnout in nurses (Hou et al., 2020; Liu & Aunguroch, 2019; Master et al., 2020; Ribeiro et al., 2018). Labrague and de los Santos (2020) found that nurses with higher levels of social support and resilience had lower levels of anxiety than nurses with lower social support during the COVID-19 pandemic.

## Case Studies

Below are case studies of four healthcare workers who work in different inpatient settings and practice different types of resilience techniques. Although all the case studies are not in rehabilitation settings, the techniques each person uses to cope with increased stressors can be relatable to nursing staff in various healthcare settings. Each story is from a real health professional who works full time, doing 12-hour shifts in rural hospital settings in the southeastern United States. All are currently working with acute or recovering COVID-19 patients, and the majority of them are floating out of their assigned unit. Reported stress levels are on a scale from 0 to 10. Their names have been changed to protect their identities.

Corey has been a nurse for 6 months. He is married and a father of two children under 5 years of age. He is also enrolled in an online RN-to-BSN program. He works on an acute long-term care unit. Corey rates his average stress level at work at 6. The stress at work primarily comes from increased workloads because of higher acuity

levels, time restraints exacerbated by using personal protective equipment for every patient, and a heavier workload created by the unit often being short-staffed. Although his work has become more stressful since COVID-19, Corey states most of his stress comes from balancing work, school, and family obligations. His high levels of stress result in apathy, poor quality of sleep, and impatience with his family. Corey sadly admits the stress also puts a strain on his marriage. His stress is difficult to manage now that an injury prevents him from going running. To help manage stressors, he talks with a friend and has tried woodworking.

Rea has been a certified nursing assistant for 23 years. She is single, with grown children and young grandchildren. She is the primary caregiver of her 91-year-old father who lives with her. Her stress levels at work have increased since COVID-19 spiked in her community. Rea rates her stress level at work as 7 when she is on the COVID-19 units and 6 when she is on the regular medical/surgical unit. Rea says her stress comes from higher acuity patients, extra required shifts, workflow adjustments from constant unit assignment changes, and personal protective equipment donning/doffing time pressures. Rea feels that COVID-19 patients need more emotional and mental care because of the patients' required isolation, as well as the confusion that comes with the illness. This tension between providing care and prolonging exposure to the virus increases her anxiety. Rea admits her fear of passing the virus to her father and grandchildren heightens her stress. Her stress levels have caused insomnia. She states she now goes to bed and wakes up at the same time every day, watches less news, does yoga and cardio, and is improving her nutrition. To cope with stress at work, she practices deep breathing, takes microbreaks, and uses humor and laughter with her patients and fellow staff.

Kari is in her mid-60s and has been an RN for 6 months. She lives with her partner and has grown children. She originally worked on a medical/surgical unit. Kari's work stress comes from new and changing workflows, scarcity of supplies to do the job, higher acuity of patients, and increased time requirements in caring for patients. Kari rates her average stress level at work at 8. Kari admits the elevated stress level increases her irritability and decreases her ability to deal with difficult patients. It also negatively affects her ability to get adequate, quality sleep. To cope with stress at work, Kari takes short breaks off the unit. She also eats a healthy diet and drinks plenty of water. At home she does yoga and walks her dogs. She states she intentionally engages in the practice of gratitude amid the pain and suffering around her.

Molly has been an RN for 18 months and works night shift on a medical/surgical unit. In addition to COVID-19 units, she also floats to telemetry and intensive

care units. Molly now rates her average stress level at 7—having increased since the pandemic. Her stress comes from the high acuity of the patients, changing workflows, the requirement to float to units where she has not previously been trained, and the increased number of shifts worked. Molly says her biggest stressor comes from the fact that she passed the virus to her family and she fears a repeat of that event. Molly's high stress levels make her more irritable with her family, especially after stressful days or extra shifts. To cope with her stress at home, she hikes with her family and cuddles with her dogs. She states she often takes "the long way home" to give herself time to process her day and not bring work stress home. At work, she can take frequent breaks from the unit—thanks to a very supportive team who can cover for one another.

## Discussion

Although these four healthcare workers work in both the acute rehabilitation and acute medical/surgical settings, their stories resonate with healthcare workers in all healthcare settings. As seen in these case studies, healthcare workers are using various strategies to build resilience to maintain their mental, emotional, and physical health. Each person must find the path that works best for them. Negative coping strategies—such as avoidance, unrealistic expectations, and misuse of substances—may relieve stress temporarily but may lead to negative health outcomes (Master et al., 2020). It is important that healthcare workers recognize the stress they are experiencing and discover what positive strategies best build their resilience.

The stressful working conditions during the pandemic have caused many healthcare workers to leave the profession, contributing to the already growing nursing shortage (Ghawadra et al., 2019). Supporting nursing staff through the COVID-19 pandemic is a vital role of healthcare organizations (Spurlock, 2020). To help alleviate nurses' increased stress levels, healthcare institutions must ensure a safe working environment; provide adequate supplies, equipment, and training; allow for multiple short breaks throughout shifts; model and reinforce self-care; and offer emotional support through listening and counseling services (Labrague & de los Santos, 2020). These strategies will promote resilience in frontline healthcare professionals and help slow the exodus from the profession.

## Summary

The COVID-19 pandemic has taken a heavy toll on rehabilitation healthcare workers. The pandemic has increased the levels of stress in nursing staff to the point that their overall health and well-being are negatively affected. For the current healthcare workforce to remain on the

## Key Practice Points

- Prolonged, elevated stress can cause negative health outcomes, but building resilience can help mitigate these outcomes by navigating stressful experiences.
- Healthcare workers can practice mindfulness, gratitude, and self-care and establish social support to build their resilience.
- Healthcare institutions can create an environment that supports its staff during the COVID-19 pandemic.

frontlines, they must adopt and practice resiliency strategies to manage their stress. Mindfulness, self-care, gratitude, and social support are evidence-based strategies that can be practiced to build and maintain resilience.

## Conflicts of Interest

The authors declare no conflicts of interest.

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