

Battling Burnout at the Frontlines of Health Care Amid COVID-19

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ABSTRACT

Nursing is a physically and emotionally demanding profession. Grueling job roles and challenging work environments, specifically in acute or critical care settings, place health care professionals at risk of burnout. Burnout in health care professionals results from a chronic negative work experience, leading to job dissatisfaction and, ultimately, poor patient outcomes. Symptoms and prevalence of burnout can be alleviated by implementing individual-focused strategies and minor modifications in work environments, job demands, and responsibilities. Currently, risk for burnout is increasing as COVID-19 challenges

health care systems in which advanced practice nurses and other health care professionals struggle continuously to deliver high-quality patient care. In this article, the circumstances surrounding COVID-19 are considered and an overview is provided of burnout phenomenon, its causal factors, and its consequences. With consideration of current evidence in literature, I discuss some suggested strategies to improve resilience and facilitate well-being among health care professionals at individual and organizational levels.

Key words: coronavirus, COVID-19, health personnel, nursing, professional burnout

COVID-19 outbreaks were first reported at the end of 2019. The United States led the world in the highest number of confirmed cases of the novel virus by March 2020¹; during the intervening quarter, COVID-19 was declared a pandemic by the World Health Organization.² The incidence and mortality rates of the highly transmittable virus responsible for COVID-19, SARS-CoV-2, rapidly peaked, causing Americans to respond in ways intended to “flatten the curve” or maintain the number of cases within the range of hospitals’ capacity to provide care. These responses, early in the pandemic and now, include quarantining large groups of people, issuing stay-at-home orders, and closing schools, businesses, and churches.¹ Research, news reports, social media, and first-person accounts inform the public about various rapidly evolving COVID-19

situations and unprecedented demands on health care institutions and their frontline clinicians.³ Although people from all walks of life collectively continue to battle to lower the incidence rates of this novel virus, health care institutions were initially unprepared for⁴ the model-predicted surge of patients with COVID-19.

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Historically, illnesses caused by a novel virus, such as the Middle East respiratory syndrome, or disasters, such as the 9/11 attack of the World Trade Center, have left a psychological impact on society, including a sense of mistrust, insecurities, and degrees of resentment or animosity.^{5,6} Likewise, fear of a pandemic typically spreads worldwide. In the settings of initial outbreaks in the United States, advanced practice nurses (APNs) and other health care professionals (HCPs) adapted to societal shifts and emotional stressors that all people encountered while conforming to significant workplace changes. Frontline health care workers confronted greater risks of COVID-19 exposure at work. They were afraid of contracting the infection at work and subsequently transmitting it to others including patients, coworkers, and members of their household. They worried about access to essential resources such as appropriate personal protective equipment (PPE), ventilators for patients, COVID-19 tests for themselves, as well as current and accurate information related to this infection. In addition, providing medical care in new work environments or to new patient populations was a notable source of anxiety. Although most people were ordered to stay at home, some HCPs who could not work from home worried about childcare access because of school closures and increased work hours.⁷

By May 2020, the initial surge of cases had passed, marked by all 50 states lifting some restrictions put into place in response to COVID-19 outbreaks.⁸ However, the United States and other countries thereafter continued to experience and respond to repeated spikes of outbreaks.⁹⁻¹¹ As the initial incidence rates of COVID-19 plateaued, unintended effects related to the novel virus emerged. One of these is the delay of medical care for patients without COVID-19, resulting in subsequent decline of their health status or progression of their chronic conditions.¹² In addition, collateral damage affects the physical and mental health of frontline clinicians.⁷ Chronic stress and burnout related to COVID-19 work conditions may exacerbate existing physical and mental health conditions, and at least 1 emergency room physician who was treating patients with COVID-19 died by suicide.¹³ Moreover, as of September 2020, reporters for Kaiser Health News and the British newspaper *The Guardian* comprehensively tracked more than 3500 frontline health

care workers who died after contracting COVID-19 at work.¹⁴ For health care workers, providing care to others during a pandemic, compounded by news of their workplace colleagues' deaths due to COVID-19, can certainly lead to stress, fear, anxiety, and other negative emotions. Thus, the number of individuals experiencing 1 or 2 negative components of compassion fatigue, namely, burnout and secondary traumatic stress, is expected to increase.

Decades of research focusing on burnout recognized such a phenomenon as an occupational hazard for individuals in people-oriented situations.¹⁵ In fact, burnout and its related concepts are referred to as the "cost of caring."^{16,17} Burnout has caused financial consequences in institutions because of decreased productivity and job abandonment by their employees. Before the COVID-19 pandemic, the Association of American Medical Colleges reported that physician shortages are projected to be as high as 139 000 in the United States by 2033,¹⁸ resulting in an anticipated increased use and role expansion of APNs and physician assistants (PAs). As health care organizations continue to treat patients and attempt to meet the increasing demand for care during the COVID-19 pandemic, the need for a strong and resilient health care workforce is more evident than ever. With COVID-19 anticipated to be prolonged, the supply of physicians, PAs, APNs, and the rest of the health care workforce is additionally threatened because rates of negative mental health consequences, such as burnout, will likely rise and continue to occur after the pandemic. In this article, I provide an overview of burnout syndrome and review its associated risk factors and consequences. I also discuss evidence-based strategies that can be used by individuals and institutions to mitigate burnout among frontline APNs and other HCPs in acute care settings.

Burnout Syndrome

Burnout is an epidemic affecting APNs and health care workers at the frontlines of patient care that was evident long before the first COVID-19 outbreak. Although it has been recognized since the 1970s,¹⁵ current literature documents that burnout remains highly prevalent in health care organizations today. Maslach's conceptual model of the burnout process describes that one's positive perceptions and feelings about their professional work result in personal accomplishment,

which is characterized by a sense of achievement and pleasure from one's work; conversely, burnout is a consequence of a chronic negative work experience.¹⁵

Over time, burnout progresses through 3 core dimensions: emotional exhaustion, cynicism, and reduced personal accomplishment.¹⁵ Emotional exhaustion is rooted in stress and the feeling of being emotionally overwhelmed that arise from social interactions between caregivers and recipients. Cynicism, originally referred to as depersonalization, is a psychological detachment from and callousness toward meaningful care provision; cynicism occurs when demands become overwhelming and professionals want to excessively reduce their involvement with people requiring care. Last, reduced personal accomplishment is characterized by an individual's sense of falling short in emotionally connecting and relating with recipients,¹⁶ as well as feeling lack of productivity at work.¹⁵

Contributing Factors and Consequences

A discrepancy between employee ideals and the actual requirements of his or her position results in burnout. Factors attributed to burnout are complex and dynamic, involving individual and organizational elements. Burnout is associated with feelings of hopelessness and ineffectuality at work. Burnout also negatively affects physical and mental well-being, leading to individual and situational outcomes characterized by negative reactions and varying degrees of cynicism about the provision of meaningful care. Job detachment can subsequently result in poor communication and interaction with colleagues and patients, thereby causing risks to patient safety, patient dissatisfaction, and overall poor quality of care.^{16,17,19} These consequences further result in job dissatisfaction, absenteeism, decisions to leave the profession, and high rates of job turnover in an organization.^{15,19,20} These consequences also significantly affect health care institutions' response to COVID-19, considering that a surge of patients would require increased available frontline staff as much as other resources.

APN Burnout Due to COVID-19 in Acute Care Settings

Notably, 35% to 54% of US nurses and physicians are affected by burnout.¹⁹ Although

APNs such as nurse practitioners (NPs) are increasingly used in provider roles in the health care workforce, recent reviews of current literature found an evidence gap regarding their burnout experience.^{17,21,22} However, in a recent single-center study of burnout and resilience in 433 APNs (inclusive of certified registered anesthetists, certified nurse midwives, clinical nurse specialists, and NPs), 26.3% experienced burnout, with NPs being the largest proportion.²³ Another study found that NPs had higher levels of burnout than HCPs in other roles and disciplines in hospital settings.²⁴ In other recent studies, APNs were usually in mixed samples, either categorized with nurses or PAs.⁷ Reasonably, despite limited evidence in literature, APNs working in comparable settings or having roles similar as their HCP counterparts, particularly staff nurses or PAs, may share commonalities through which burnout develops and is experienced.

Moreover, burnout is clearly linked to work-environment aspects, including heavy workload, high work demands, and lack of control.^{15,23} In fact, in a national survey of providers, including NPs and PAs, in general internal medicine, burnout was associated with high stress and hectic clinical settings.²⁵ Consistent with findings of a study of burnout among critical care nurses,²⁶ researchers investigating a nationwide sample of NPs working full time with at least 50% of hours spent in the direct care of patients with ventricular assist devices found that work environment was a contributing factor to burnout and reduced work-life quality.²⁴ In particular, critical care units and emergency departments are physically and emotionally straining work environments. Therefore, when coupled with the inherent demands of the nursing profession, working in these settings consequently increases the propensity for burnout. Risks for burnout unique to APNs in acute and critical care settings include high patient acuity and high patient volumes.^{26,27} The national survey conducted by Linzer et al²⁵ further confirmed that stress sources include complex patient populations, work demands related to expanding roles, and lack of leadership support, recognition for work, transparency, and 2-way communication. Thus, caring for patients with complex conditions, including those severely ill with COVID-19, increases the likelihood of burnout developing among APNs in acute care settings.

As pressures on an already overextended system intensify, clinicians' susceptibility to burnout is further increased by the challenges HCPs face as a result of the COVID-19 pandemic. Increased total work hours, which may occur for some APNs caring for patients with COVID-19, also contribute to developing burnout.²⁴ Hospitals' responses to COVID-19 cause rapid involvement of external environments; for example, APNs from other departments are assigned to specific units intended for patients with COVID-19 infection, and familiar work processes and protocols are modified. These effects may challenge APNs to effectively respond to peaked patient volumes and complex patient care needs. Such changes could result in communication gaps, causing confusion and interpersonal conflict. Also, uncertainties regarding COVID-19 transmission, as well as inadequate PPE and medical equipment, result in moral distress; frontline APNs are conflicted between inability to provide appropriate patient care caused by constraints beyond their control and their professional oaths, values, and commitment to patients. These novel circumstances render physical and psychological demands that are associated with the development of burnout symptoms.²⁸

Treatment of patients with COVID-19 presents emotionally charged situations that require urgent and sometimes complex quality care. Constant exposure to such circumstances further reduces APNs' opportunity to rest and recover. At early stages, burnout may manifest as stress symptoms, including headaches, chronic fatigue, sleep disturbances, and frequent episodes of upper respiratory infections,¹⁵ which can further impair APNs' abilities to recover from their experiences in deleterious workplace conditions. Maladaptive coping strategies such as problematic use of alcohol, inadequate sleep, and an increased risk of suicide are also individual characteristics associated with burnout.^{19,20}

Strategies Targeting Burnout Individual Strategies

Because of the personal and organizational costs of burnout, interventions are suggested at individual, departmental, and institutional levels. Other health care disciplines are directed by their respective professional values, and APNs and all nurses are fundamentally guided by the *Code of Ethics for Nurses With Interpretive Statements* provided by the American

Nurses Association.²⁹ As indicated in provision 5 of the Code, nurses have the responsibility to promote self-health and safety, preserve wholeness of character and well-being, maintain competence, and seek ongoing personal and professional growth.²⁹ Thus, all nurses, including APNs, are personally responsible for mitigating, recognizing, and managing their symptoms of burnout. Tangible strategies to address burnout within oneself primarily include self-care.^{17,20,22} For humans to function optimally, their biological requirements must first be satisfied.³⁰ In fact, during the US initial response to COVID-19, grocery store shelves became empty, demonstrating insecurity regarding food access during unprecedented times. Reflective of Maslow's hierarchy of needs, fulfilling physiological and safety needs remain a priority.³⁰ Therefore, in the midst of stressors intensified by COVID-19, APNs at work must continue maintaining their own well-being through proper nutrition, adequate rest, physical exercise, and recovery.

In addition to self-care measures, individuals working in direct patient care must aim to recover from work away from the frontlines. Recovery from work stress involves relaxation, detachment from work-related responsibilities, and engagement in enjoyable activities alone or with individuals outside of work. Such forms of recovery reduce burnout severity and the risk of this syndrome developing over time.³¹ Hospital APNs who formerly experienced burnout reported that these strategies alleviated or prevented exacerbation of their burnout symptoms.²² Hence, amid busy schedules, APNs are encouraged to be deliberate in prioritizing self-care and assigning time to engage in activities that allow recovery from work.

A randomized controlled trial involving 50 nurses recruited from a 560-bed urban hospital found that yoga significantly improved emotional exhaustion and cynicism.³² In line with the findings from that study, a study of an emergency department's multidisciplinary team from a single center demonstrated that two 20-minute sessions per week of focusing one's attention on repetition of a non-English phrase or word, such as *maranatha*, significantly decreased the levels of emotional exhaustion, which is 1 core dimension of burnout.³³ From this perspective, less than 1% of the week invested into an individual's well-being significantly alleviated burnout!

Table: Potential Interventions to Prevent and Mitigate Burnout Syndrome**Individual-focused interventions**

Self-care measures: ensuring proper nutrition, adequate rest, and physical exercise
 Work-life balance measures: engaging in enjoyable activities outside of work, spending time with family, participating in social activities, avoiding overtime hours, scheduling vacations or time off from work
 Building resilience: stress-reduction techniques, developing flexibility and coping skills
 Relaxation techniques or yoga
 Meditation and focused breathing
 Engage in debriefing, therapy, or counseling sessions

Interpersonal interventions

Finding support from others
 Establishing social connections and positive collaborative relationships
 Team-building training
 Developing skills in conflict management

Organizational interventions

Provide training and education about burnout recognition and management
 Provide access to resources to enhance wellness, such as tobacco cessation and exercise programs
 Provide assigned areas where staff can be revitalized and take breaks away from work areas
 Eliminate stigma and foster psychological safety to promote help-seeking behaviors
 Evaluate workload expectations and adjust to optimize workload
 Provide staff meaningful recognition for their work

Advanced practice nurse actions to promote healthy work environments

Build and maintain positive collegial partnerships
 Role model respectful behaviors
 Use skilled communication

Equally important, increased resilience is widely recognized as an effective strategy to bounce back from workplace challenges.³⁴⁻³⁶ In a single-center study of nurses working in an intensive care unit, a multifaceted resilience training program, which included writing, mindfulness, exercise, stress-reduction techniques, and counseling sessions, decreased the severity of all 3 core dimensions of burnout.³⁵ Building on these findings, another study found that mental health outcomes and job satisfaction were significantly improved by a similar program that emphasized self-care strategies for one's physical and mental health as well as skills for developing positive self-esteem, establishing long-term goals, increasing flexibility, and managing emotions and stress.³⁶ Therefore, APNs and other HCPs in acute and critical care settings are encouraged to build resilience through various activities, such as engaging in mindfulness or writing therapy and developing skills in stress management and flexibility to assist in overcoming challenges in the workplace.

When paired with recovery from work, adjusting workload demands has directly affected levels of emotional exhaustion.¹⁵ Thus, additional recommended strategies

involve focusing on the aspects of work one can control such as modifying work patterns to find an appropriate work-life balance. More specifically, APNs should take more breaks, work less, or avoid overtime hours. Considering that a sense of efficacy, a sense of community, and recognition can counteract cynicism,¹⁵ developing flexible coping skills, such as conflict resolution and time management, is essential,^{15,36} as well as finding support from peers, mentors, outside personal relationships, and counseling services (see Table).¹⁵

Organizational Strategies

In synergy with individual-focused interventions, organizational strategies are beneficial in preventing, mitigating, and fundamentally eliminating burnout. Furthermore, solutions to enhance well-being involve systemic changes targeting multifactorial contributors. Professional bodies such as the Critical Care Societies Collaborative (CCSC) and the National Academy of Sciences, Engineering, and Medicine (NASEM) acknowledge systemic factors, and they present potential interventions to mitigate the consequences of burnout within health care institutions. Their publications "Burnout Syndrome in Critical Care Health

Care Professionals: A Call for Action”²⁰ and “Taking Action Against Clinician Burnout: A Systems Approach to Professional Well-Being,”¹⁹ are explicit calls to action for clinicians and leaders from multiple levels in the efforts of tackling burnout. The CCSC and NASEM recommend that staff be provided education and training on burnout syndrome, because APNs and other HCPs should be able to recognize risk factors and symptoms of the syndrome within themselves and in others.^{19,20} Both professional groups maintain that those at the frontlines need to be supported through elimination of barriers, such as associated institutional stigma, to resources that prevent burnout or facilitate recovery from burnout.^{19,20} The NASEM also suggests that institutions should accurately evaluate the workload expected of clinicians and that workload should be optimized through task distribution and appropriate use of ancillary staff.¹⁹

A reduced sense of control is associated with burnout among APNs.²⁸ Specific to the COVID-19 pandemic, recent constraints from inadequate PPE or ventilators were perceived by APNs as aspects of their work environment over which they lacked control. Findings of a study of emergency NPs and PAs in a single urban medical center showed that, among that group, a sense of control was associated with a greater sense of personal accomplishment.³⁷ Hence, leaders must facilitate factors through which APNs can gain an increased sense of control at work. Studies suggest that individuals should focus on the aspects of work that can be controlled; organizations can follow suit in addressing modifiable factors that can help mitigate burnout. For example, rather than working a traditional, continuous 14-day period of direct patient care, individuals performing HCP roles prefer alternating weekend coverage; according to the HCPs, having control of their work schedules is a helpful solution.²⁸ In addition, hospitals or similar institutions are urged to reduce administrative burden upon clinicians, such as facilitating technological solutions that optimize the use of health informatics and address associated time-consuming workflow challenges.¹⁹

Problems with administrative leaders are related to burnout,²⁶ and low workplace support is significantly associated with emotional exhaustion.²⁴ In previous studies, APNs, PAs, and physicians reported a lack of support from their supervisors, who did not understand

challenges in their daily work.^{22,28} In contrast, the values of physician and nonphysician providers that are in line with those of their leaders are protective against burnout.²⁸ Studies of nurses and those in HCP roles found that burnout also is linked to insufficient recognition^{22,28} and reward, as well as poor job-related relationships.^{15,28}

Organizations must provide leadership support and ensure that leaders are equipped with resources essential to their role in order to actualize authentic leadership. Organizations and leaders must also emphasize self-care as a priority for APNs. Health care institutions could work to ensure that staff is given access to nutritious foods, especially during their work hours. They can provide access to self-care interventions such as tobacco cessation, exercise, and other wellness programs. In addition, APNs and frontline staff could be provided with tools to help them make informed decisions that can improve their health and wellness. These tools include workshops or in-services that educate them on nutrition and exercise, as well as access to fitness centers or gyms. Moreover, organizations can inform the staff about currently available resources and services, such as debriefing or counseling sessions.²² Importantly, work-home life balance concerns must be addressed because APNs need to care for their families at home. In particular, COVID-19 presents situational challenges on clinicians’ relationship with their children or elderly parents. Hence, APNs and other providers proposed that organizations should explicitly help facilitate home-work life balance by supporting part-time employment status and allowing staff time for additional discussion with their leaders.²⁸

Overall, frontline APNs want to be heard, protected, prepared, supported, and cared for by health care institutions for which they work.⁷ Frontline staff build on collegial relationships and confide in their coworkers because they believe leaders are unaware of their daily work struggles and concerns in frontline work environments.^{22,28} Administrative leaders must take the time out of their day-to-day activities to visit hospital units and observe how patient care is provided. Rather than imagining processes in conference rooms, they must interact with APNs and gain their input. Although leaders may not have all the answers, their engagement in these situations will facilitate clear and

open lines of communication that allow APNs' concerns to be heard, provide reassurance of what is being done to protect them, and limit their risks of contracting COVID-19 infection; it will also help leaders determine ways to support APNs when infected with the virus. Visible leadership also allows for provision of emotional support and work recognition for APNs and frontline staff during these unsettling times.

Healthy Work Environments

Considering that work environments contribute to development of burnout, organizations must take accountability for the staff's well-being and must take part in facilitating attributes of healthy work environments (HWEs). The NASEM and CCSC recommend organizational interventions to create work environments that reduce contributing factors to burnout and promote clinicians' well-being.^{19,27} In line with NASEM and CCSC, the American Association of Critical-Care Nurses (AACN), years ago, issued its landmark report encouraging all nurses, HCPs, and organizations to exert efforts in establishing and sustaining HWEs that optimize quality and safe patient care.³⁸ In its report, AACN identified 6 essential work environment standards that allow APNs and all frontline health care workers to practice and provide care to the fullest extent of their potential, facilitating high-quality outcomes and enabling multidisciplinary team members to attain a sense of achievement in their work. These standards are skilled communication, true collaboration, effective decision-making, appropriate staffing, meaningful recognition, and authentic leadership.³⁸

Of note, poor interpersonal relationships are associated with burnout in nurses, physicians, and nonphysician providers.^{19,20,25,31} Logically, considering that working relationships are regarded as a modifiable risk factor, measures that can improve communication and foster healthy working relationships and interprofessional collaboration would contribute to addressing burnout in APNs and other HCPs. Therefore, a sense of community must be instilled in the workplace culture as a foundation for team building and promoting healthy working relationships. In particular, administrators may provide staff access to assigned areas such as a lounge or communal space in which APNs and other frontline staff can either collaborate with each other or do

solo work. In these spaces, the essential aspects of being a professional that are beyond bedside interactions, specifically social connections with other members of the health care team, can be further nurtured.

APN Roles in Addressing Burnout

Typically, APNs working with acutely ill patients with COVID-19 practice in teams, which positions them well as leaders in safeguarding interprofessional collaboration. As an essential aspect to graduate nursing education, APNs are expected to be skilled in building and maintaining respectful collegial partnerships through skilled collaboration and conflict resolution strategies.^{39,40} Therefore, within their scope and application of their training, APNs can participate in systemic efforts in addressing burnout and sustaining HWEs. Despite unprecedented challenges resulting from the COVID-19 pandemic, APNs as leaders must role model behaviors that foster an organizational culture that sustains HWE. Furthermore, APNs are equipped to contribute unique nursing perspectives to interprofessional teams to help optimize patient outcomes.

Conclusion

As of January 2021, Pfizer and Moderna each have created a vaccine against COVID-19; both vaccines have been granted emergency use authorization by the US Food and Drug Administration. Thus far, these vaccines have undergone rigorous safety monitoring as they have been administered to millions of people in the United States.⁴¹ Moreover, clinical trials for 3 additional COVID-19 vaccines from other companies are in progress or are being planned.⁴¹ Although for many, these advances may symbolize progress in society's battle against COVID-19, burnout remains a common worldwide phenomenon. Given that it is paired with a global infection of a novel virus requiring HCPs to respond accordingly, burnout becoming a "parallel pandemic" is possible. Sufficient evidence underpins the importance, now more than any time in health care, of collectively supporting and targeting care toward those who provide patient care. Considering that shortages in the health care workforce would have negative effects on patient care, APNs and other frontline health care members are among the institutions' most valuable and irreplaceable assets.

Thus far, COVID-19 requires a prolonged response with contributions from people from all walks of life. Similarly, the prevention, mitigation, and elimination of burnout necessitate collaborative efforts from stakeholders across all levels of health care. Correcting the root causes of burnout is challenging. However, burnout can be detrimental individually, organizationally, and society-wide. It harms one's quality of life, damages camaraderie and group morale, and deters organizational productivity. Furthermore, the aforementioned consequences result in financial burden, account for suboptimal patient outcomes, and lead to a spectrum of negative physical and mental health outcomes ranging from upper respiratory infections to tragic suicides among HCPs. In the same way our nation rallied to care for the first responders to the World Trade Center disaster of 9/11, all APNs and stakeholders (including unit-based leaders, hospital administrators, professional societies, and policy makers) must support the frontline staff and, collectively from all angles, recognize and reduce the prevalence of burnout. The overarching goal for addressing burnout is to allow people in caring professions to return to or continue their work and successfully provide optimal care. By ensuring that frontline health care workers' needs as professionals and individuals are met, burnout can be mitigated and their performance will be maintained for the long haul. Establishing HWEs and promoting resilience in APNs and other clinicians will help ensure that those at the frontlines will not only survive but also thrive in the face of adversity.

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