



Using Terror Management Theory to understand health workers burnout in response to the COVID-19 pandemic

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Abstract

The COVID-19 pandemic has resulted in unprecedented levels of illness and death, resulting in stress for the general population and in particular, health care workers who are faced with the care of patients exposed to the virus. The aim in this paper is to discuss the impact on healthcare workers of providing care during the COVID-19 pandemic; focusing on the psychological stressors associated with fear of infection and the physical stressors associated with prolonged PPE use using the lens of Terror Management Theory (TMT).

Keywords: COVID-19, health care workers, stress, burnout, Personnel Protective Equipment

The COVID-19 pandemic is causing great stress on health services worldwide and on the staff delivering patient care. While the majority of the 609 million cases to date did not require hospital admission, the vast number of people infected resulted in surges in acute care demand for those with severe infection (Grasselli et al., 2020). Internationally, health services reported being overwhelmed by the unprecedented demand for acute respiratory care, emergency and critical care services (Goic et al., 2021). In addition, the high mortality rate placed great strain on health service providers and associated services. Although estimates of the death toll as a result of the COVID-19 pandemic vary, by September 2022 at least 6.53 million deaths were reported worldwide due to since it was declared a pandemic by the WHO on March 11th 2020 (John Hopkins University, 2022; World Health Organization, 2020). Although healthcare workers often work with people in distressing situations and many clinicians encounter death as part

of their practice, the scale of the increase in demand for health care and the associated death toll was outside their experience. At the beginning of the pandemic, health care workers' concerns were heightened by a lack of adequate Personal Protective Equipment (PPE). Facing an unknown and potentially deadly virus when the mode of transmission was unknown, and advice regarding what constituted adequate PPE was inconsistent and compounded health care workers' stress in the early stages of the pandemic.

Prior to the COVID-19 pandemic, a substantial proportion of nurses and medical doctors in the United States were already described as being affected by burnout (National Academies of Sciences Engineering and Medicine, 2021). Two years into the COVID-19 pandemic concerns about the impact of the COVID-19 pandemic on health care workers' (HCWs) stress levels, burnout, and the sustainability of the health care workforce are reported internationally (Galanis et al., 2021). The aim in this paper is to discuss the

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impact on healthcare workers of providing care during the COVID-19 pandemic; focusing on the psychological stressors associated with fear of infection and the physical stressors associated with prolonged PPE use using the lens of Terror Management Theory (TMT).

Terror Management Theory - An overview

The Terror Management Theory (TMT) posits that controlling death anxiety is a driving force behind many aspects of social behaviour (Solomon et al., 2004). According to the TMT, 'mortality salience' is the state in which awareness of one's own mortality increases anxiety and can cause unbearable terror or internal conflict. When facing death, individuals often seek to follow culturally endorsed worldviews. Such following affords reassurance that the individual is making a social contribution that can have lasting significance and thus gives meaning to life (Greenberg et al., 2014). This prosocial focus in turn protects the individual from experiencing overwhelming anxiety in situations where mortality salience is raised (Cui et al., 2020).

Healthcare workers and the COVID-19 Pandemic

Stress has been described as affecting up to 10% more healthcare workers than workers in other industries (Ito et al., 2014). Stress in the workplace and in healthcare workers has been described as resulting from a lack of skills, organisational factors, and/or low levels of workplace and social supports (Ruotsalainen et al., 2014). Organisational factors inducing stress in healthcare workers can include: increasing work demands, repeated exposure to patient suffering, cumulative impact of experiencing patient death, staff shortages, and high patient acuity (Rushton et al., 2015). The COVID-19 pandemic has exacerbated known stressors, while placing unique demands on healthcare workers. Couarraze et al. (2021) surveyed over 13,000 individuals in 44 countries and showed that healthcare workers had levels of stress 25.8% higher than the general population, with nurses reporting more stress than medical doctors. Clearly this stress and stressors have the potential to become chronic as the pandemic continues and health services remain under pressure due to successive waves of COVID-19 infections.

Early in the pandemic many healthcare workers expressed fears about developing COVID-19 infection, with these concerns exacerbated by reports of high mortality amongst healthcare workers in China (Bandyopadhyay et al., 2020) and Italy (Lapolla et al., 2021) in the early stages of the pandemic (Koh, 2020). Despite the risk of acquiring infection, sometimes described as innate to work in healthcare set-

tings (Cawcutt et al., 2020), the COVID-19 pandemic has amplified this risk, especially in the initial phases of the pandemic when no vaccines were available and PPE supplies were limited. Internationally the high incidence of COVID-19 infection among healthcare workers and the emerging problem of experiencing long-COVID highlights that these concerns are valid (Koh, 2020; Marshall et al., 2021).

In order to determine what pressures and stress healthcare workers were under during the COVID-19 pandemic, Aloweni et al. (2022) asked healthcare workers whether they felt that some clinical procedures could increase their exposure to SARS-CoV-2, and found that 23.3% of respondents surveyed stated that some routinely performed clinical procedures could increase their risk of exposure, with 25.7% stating that they performed such procedures daily. Furthermore, only 13.7% of respondents were highly confident that their PPE provided sufficient protection from COVID-19 exposure. Participants in Aloweni et al. (2022) study also reported a high frequency of PPE-related side effects, with 31.3% reporting that side effects experienced influenced their daily work, causing inability to focus, discomfort and headaches. Approximately a quarter of respondents (27.5%) reporting that wearing PPE interfered with the provision of patient care and performing procedures such as wound dressings. Clearly, experiencing adverse events and fear at work is less than ideal and can potentially give rise to mental ill health in healthcare workers and provide workers with constant reminders that they are facing death at work.

Controversy relating to transmission mode may also have further increased workplace stress among health care workers. SARS-CoV-1 was eventually shown to be transmitted through aerosols, however, controversy still exists on whether SARS-CoV-2 is transmitted via aerosol or droplets route (Jimenez et al., 2022). Non recognition of transmission through airborne route in certain countries resulted in measures to reduce airborne transmission being under-emphasised and under used (Greenhalgh et al., 2022). This means that some healthcare workers still face an element of risk in their clinical practice and clearly this is not conducive to stress-free practice. Self-protection and/or protection of friends/family have been shown to be the top motivators for adherence to Infection Prevention and Control (IPC) guidelines (Curtis et al., 2022), therefore being supplied with inadequate or uncertain PPE supplies may increase both health care workers' infection risk and their experience of work-related stress.

There is emerging evidence that the COVID-19 pan-

demic has resulted in worsening levels of burnout, compassion fatigue, and secondary stress trauma in healthcare workers, with nurses being particularly affected (Lluch et al., 2022). Benfante et al. (2020) described the psychosocial impact of the COVID-19 pandemic through a review of existing evidence and highlighted an important impact of the pandemic on healthcare workers through an acute stress reaction, a secondary trauma and traumatic stress. As seen previously, changes in workflow and the systematic use of PPE to deliver care had a potential impact on workers stress levels. Another aspect that could have an impact is the changes related to the public health measures put in place to decrease the incidence of COVID-19 in the population.

Alongside restricting free movements of people in the community and the use of PPE to deliver care, significant visitor restrictions were implemented to protect inpatients and hospital staff (Bloomer & Bouchoucha, 2021). While these restrictions aimed to decrease the incidence of COVID-19, restricting visitors in hospitals redefined the way nurses delivered care. Family centred care, especially in paediatrics settings and in the intensive care, has been linked to better patients' outcomes as well as increased satisfaction and decreased emotional distress in patients (Davidson et al., 2012; Rosa et al., 2017). Preventing family members visiting gave rise to: communication challenges, difficulties for families in understanding and tracking medical information which resulted in difficulties in interfamily communication (Greenberg et al., 2022). Family members expressed distress related to visitor restrictions fearing that patients would feel alone and unsupported and would therefore lack motivation to participate in their care and recovery (Greenberg et al., 2022). In turn, clinicians were required to modify the way they provided family-centred care in order to be able to meet patients and family needs (Greenberg et al., 2022). In some centres this took the form of initiating virtual visits using digital connectivity, but this did not fully replace the benefits of face-to-face connection with loved ones.

It also appears that restricting visitors had a hidden impact on healthcare workers themselves. A sense of personal achievement has been described when providing meaningful care to patients and their kin, and this sense of achievement may be lessened when having to deny family visits needs to be investigated (Bouchoucha & Bloomer, 2021). A sense of personal achievement when providing care is also a clear feature of compassion satisfaction (Sacco & Copel, 2018) with compassion satisfaction providing protection against burnout and secondary traumatic stress

(Ortega-Campos et al., 2020).

Resilience is defined as the capacity to recover quickly from difficulties (Oxford English Dictionary, 2020). In an attempt to address issues with staff retention and burnout the term 'resilience' was already being overused in health care organisations prior to the COVID-19 pandemic (Cai, 2020). Ruotsalainen et al. (2014), in a Cochrane systematic review, summarised interventions aimed at preventing occupational stress in healthcare workers and showed that there was moderate level evidence for cognitive behavioural training (CBT) and the use of mental and physical relaxation techniques to reduce stress and called for more randomised control trials as well as an organisation focus on reducing the stressors that affect healthcare workers. Furthermore, interventions such as wellbeing programs (e.g., yoga and meditation), staff development courses around teamwork and strategies for managing workplace stress are among interventions shown to have improved nurses' resilience in the workplace (de Oliveira et al., 2019).

When applying the lens of the TMT to understand healthcare workers stress in the workplace, it is possible that their exposure to death both clinically and also through constant reports on the pandemic in the media (Pyszczyński et al., 2021), has raised mortality salience amongst healthcare workers, thereby elevating their concerns about exposure and infection. This was particularly pertinent at the time when there was disruption in supply chains and inadequate access to PPE in some centres and a lack of knowledge about viral transmission and exposure risks. Whether or not the public health actions taken to "flatten the curve" such as widespread lockdowns have also inhibited individual responses to mortality salience such as cultural worldview defence, or affirming close relationships (Pyszczyński et al., 2021) need to be investigated.

Nurses and midwives have reported moral distress about enforcing social distancing initiatives in health care settings (McMillan et al., 2021). This distancing requirement elevated their stress at a personal level as they could see how isolated and lonely patients felt. The TMT postulates that human connection and social agreed values buffer stress and anxiety experienced when mortality salience is raised. By removing many aspects of social interaction with patients and the provision of support for patients and families, this has removed one of the key motivators for individuals to continue practicing nursing. According to TMT removing aspects of care provision that are highly valued by staff, would heighten and exacerbate the stress they were experiencing and may be one ex-

planation/ contributing factor for the high rates of staff burnout reported amongst doctors, nurses, and midwives two years into the pandemic.

The COVID-19 pandemic has shown us that while resilience has been a “buzz word” in recent years, we might have failed to implement meaningful interventions that really make a difference to healthcare workers and particularly nurses wellbeing in the workplace. We might have also come short on the pandemic response planning, and this could have exacerbated the pre-existing challenges for nurses in the workplace. There were many examples of support afforded to healthcare workers, especially during the first wave of the pandemic, with nurses being labelled as heroes, food being delivered to hospital and times where healthcare workers were applauded in the streets. But what is needed are structural changes in the delivery of healthcare in many countries, to avoid being faced with staff shortages and low resourcing. Getting voices, opinions, and input on how the incidence of burnout can be reduced is also essential, as there are real risks associated with actions slated as improving nurses’ wellbeing like “free pizzas” being seen as tokenistic. The pandemic caused

very deep changes in health care workers’ experiences of work rendering the delivery of care difficult and causing negative impacts on patients’ outcomes. Interventions to support staff need to focus not just on general well-being measures but also need to provide opportunities for clinical staff to address their core values, and motivators for entering clinical professions.

The use of the TMT can be a useful tool to determine how stress and burnout have been exacerbated during the COVID-19 pandemic in healthcare workers. It may be that further than the work pressures widely described, such as overwhelmed intensive care units and emergency departments and increase in death toll, some actions taken by governments have reduced healthcare workers coping abilities. Future research is urgently needed to examine the underlying root causes of increased burnout and stress, to enable development of meaningful interventions to support healthcare workers in the workplace. Such initiatives are urgently needed to prevent critical workforce shortages that cripple capacity to provide health care services and the ability to respond to future emergencies.

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