Psychological impact of COVID-19 pandemic on health care professionals and workers

ABSTRACT

The outbreak of a novel coronavirus starting from December 2019 and reaching pandemic proportions has raised concerns as to the ability of the current protective measures and the health-care system to handle such a threat. Health-care workers may experience considerable psychological distress as a result of the coronavirus disease-19 pandemic due to providing direct patient care, vicarious trauma, quarantine, or self-isolation.

Keywords: Health-care workers, pandemic, professionals, psychological, SARS-CoV-2

Since December 2019, the world has been facing the outbreak of a novel infectious disease known as coronavirus disease (COVID-19) starting from Wuhan city of China and rapidly spreading to other countries worldwide, which has been declared as a pandemic by the World Health Organization.[1] Its spread and lethality in terms of absolute numbers is proving to be higher than that of previous epidemics on account of international travel density and immune naivety of the population[2] triggering urgent, draconian public health measures in most of the countries around the globe. Many accomplishments on COVID-19, including virus information, clinical features, and diagnosis, have been achieved, but no effective treatment is available yet.[3-7] The disease, COVID-19, has caused an unprecedented situation for citizens, policymakers, politicians, and health-care professionals, with the pandemic being described as the worst public health crisis in a generation.

Frontline health workers are integral to the global response to COVID-19. In hospitals, clinics, and homes around the world, health workers are taking on significant personal risk and too often working without adequate equipment to ensure all can receive the care they need.

The mental and physical toll this crisis is having on our frontline health workers is rapidly becoming an epidemic itself. Every new COVID-19 diagnosis means longer hours, less sleep, and sporadic meals, which lead to weakened immune systems.

In brief, they are exposed to a protracted source of distress which may exceed their individual coping skills, being, according to a clinometric definition, in allostatic load, which is likely to result in overload with protracted time.[1]
Facing this large-scale infectious hazard, people are under increased psychological pressure. Patients with mental health conditions, such as depression and anxiety, have been reporting relapses in their mental state such as fear-triggered panic attacks or resurface of psychosomatic symptoms; patients with medical comorbidities, such as cardiovascular disease, have been expressing distress and associated worsening of symptoms, in particular angina and worsening of heart failure status. Even though children, who have been reported to be less susceptible to COVID-19 infection, are witnessing considerable psychological implications: the shutting down of schools and playgrounds and the restriction of outdoor activities alongside their parents’ fears of contamination have been triggering manifestations of anxiety, such as panic attacks and psychosomatic symptoms.

**PSYCHOLOGICAL IMPACT ON HEALTH-CARE PROFESSIONALS AND WORKERS**

The general population, however, are not the only ones at risk for psychological distress during this pandemic. Experiences from previous severe acute respiratory syndrome (SARS) and H1N1 epidemics underline that the psychological strain on health-care workers, who find themselves at the front line of attempts to quell the outbreak, is significant.[9,10]

During the COVID-19 pandemic, clinicians are confronted with mounting challenges that have not been faced ever before. Decisions have to be made fast, ranging from efficiently triaging and isolating patients with suspicion of infection, to deciding whether to shut down departments and operating theaters when a patient or staff test positive, all these while being on limited resources and protective equipment, particularly of personal protective equipment (PPE) in most of the countries. The pressure to act timely and to successfully diagnose, isolate, and treat has been overwhelming, especially amid intense public and media scrutiny. This phenomenon is being seen across many countries.[11] In addition, due to the increased risk of exposure to the virus, the frontline doctors, nurses, and health-care workers fear that they may contract COVID-19 themselves. They worry about bringing the virus home and passing it on to their loved ones and family members – elderly parents, newborns, and immunocompromised relatives. The use of protective equipment for long periods causes difficulties in breathing and limited access to toilet and water, resulting in subsequent physical and mental fatigue. Such experiences of health-care personnel are being recorded in the emerging scientific literature[12] and media reports.

Hence, health-care professionals dealing with COVID-19 are under increased psychological pressure and experience high rates of psychiatric morbidity, resembling the situation during the SARS and H1N1 epidemics.[9,13] A recent study among health-care professionals in a tertiary infectious disease hospital for COVID-19 in China, revealed a high incidence of anxiety and stress disorders among frontline medical staff, with nurses having a higher incidence of anxiety than doctors.[14] Another observational study of 180 health-care workers providing direct care to patients with COVID-19 found substantial levels of anxiety and stress that adversely influenced sleep quality and self-efficacy.[15] Importantly, those who reported a strong social support network had a lower degree of stress and anxiety, and a higher level of self-efficacy.[15] A qualitative study of medical residents during the 2003 SARS outbreak in Toronto showed that anxieties around personal safety and risk of contagion to loved ones conflicted with their professional duty to care.[16] This highlights the complexity of issues faced by health-care workers and the dissonance they are required to reconcile.

Health-care providers not directly caring for patients with COVID-19 are not immune to psychological effects and may have vicarious trauma at levels similar to the general public.[17] It has been postulated that this may relate to their concerns for patients with the disease, their at-risk colleagues, and for themselves and their families.[17] The disruption of routine clinical practice, the sense of loss of control, and the subsequent fear of potential destabilization of the health services have provoked “overflowing” anxiety and depression among health-care professionals, a feature which is not uncommon of epidemics.[33,18] Depression is associated with poor medication adherence,[19] which may increase morbidity among older health-care workers with coexisting medical conditions.

A recent COVID-19 study demonstrated that frontline nurses had significantly lower vicarious traumatization scores than nonfrontline nurses and the general public.[17] Similarly, another study from Singapore comparing anxiety level in medical and nonmedical health-care personnel found higher prevalence of anxiety among nonmedical health-care workers.[20] Reasons for this may include reduced accessibility to formal psychological support, less firsthand medical information on the outbreak, and less intensive training on PPE, and infection control measures.

**MITIGATING THE NEED OF PSYCHOLOGICAL SUPPORT FOR HEALTH-CARE WORKERS**

On a positive note, experience, so far across the globe, indicates that the willingness of health-care staff to
work has not been really affected, in line with reports from previous pandemics.\[9\] Despite the initial shock, the health professionals appeared to exhibit high levels of commitment and professionalism. Confidence in safety, risk perception, and confidence in skills are proven facilitators for willingness to work in health-care workers.\[21\] Hence, increasing knowledge about preventing and dealing with the disease, and the development of more specific procedural and treatment protocols, alongside educational activities, will contribute in enlightening the morale and confidence of the health-care workers dealing with the pandemic. However, considering the increased psychological pressure of frontline health-care staff, measures for psychological support and interventions to protect their mental health should be adopted promptly, as depicted from previous experience\[9,14\] and emerging initiatives and literature.\[12,13,21\]

Few past experiences from literature describe measures to mitigate the psychosocial impact on health-care workers and have identified themes that commonly arise in pandemic situations.\[22,23\] Clear and rapid hospital communication was helpful to address the reactions of health-care workers based on uncertainty or fear.\[23\] Frequent communications, without being overly reassuring, were also identified as helpful in previous outbreaks.\[10,22,23\]

Psychiatric support was offered to health-care workers during the SARS outbreak, at first informally and then through confidential telephone lines and drop-in centers.\[23\] The current need for physical distancing necessitates adjustments to these supportive interventions by leveraging today’s technology (e.g., online video and audio capabilities). System-level changes (i.e., safe hospital policies and adequate resource provision) are likely to have more far-reaching effects than individual support, especially because the capacity to counsel a large number of affected health-care workers may be inadequate in most of the places.

A review of the existing evidence indicates that health-care workers who are self-isolating or under quarantine report symptoms of posttraumatic stress disorder, depression, stigmatization, and fear of financial loss.\[24\] Failure to ensure appropriate support could result in underreporting of symptoms and increase the risk of in-hospital transmission from those who continue to work while being sick. A strong social support network can offset feelings of isolation.\[24\] Video calls and virtual meetings allow for maintenance of social relations while preserving physical distancing. Other mitigating interventions may include delivery of general and medical supplies, limiting isolation to the shortest duration necessary, and emphasizing that altruism and serving of the greater good are core values of the profession.\[24\] All these interventions can reduce the effect of quarantine or isolation and help to preserve wellness and fitness in health-care workers so that they can return to work with full efficiency when they are out of it.

**CONCLUSION**

We are facing unprecedented circumstances never seen by us before; the current bio-threat is the most serious global crisis of our generation. Health-care staff like us are in the front line of this fight, which is taking a serious psychological toll; supporting health-care workers in all aspects is vital to sustaining a healthy workforce during the pandemic, which would eventually help in containing the pandemic.

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There are no conflicts of interest.

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