

Review Article

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Psychological Impact of the COVID-19 on Health Care Workers in the Emergency Department

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Abstract

The ongoing global pandemic of the Coronavirus disease 2019 (COVID-19) is a public health emergency. It has not only affected the general population, but has also caused psychological distress in the frontline health care workers (HCWs). It is crucial to understand the psychological impact of the COVID-19 on the frontline HCWs. The overall well-being and resilience of HCWs are key determinants to maintain an optimal healthcare response for appropriate patient management as well as to achieve good patient outcomes. This article summarizes the various risk factors as well as strategies that can be adopted to reduce the impact of stress on these frontline HCWs. This will help guide institutional as well as national policies and interventions to maintain their psychological well-being.

Key words: COVID-19; Emergency Service, Hospital; Health Personnel; Stress, Psychological

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CONTEXT

Since the end of December 2019, an outbreak of several cases of pneumonia of unknown etiology was identified in Wuhan City, Hubei Province of China. The virus causing the disease is Severe Acute Respiratory Syndrome Coronavirus 2 (SARS-CoV-2); and the disease is termed Coronavirus Disease 2019 (COVID-19). On 11th March 2020, World Health Organization (WHO) declared COVID-19 to be a global pandemic^(1, 2). As of 16th April 2020, WHO has reported 1,991,562 cases of COVID-19 globally, with 130,885 deaths⁽³⁾.

Health Care Workers (HCWs), especially those who work in the front line e.g. emergency department (ED), are directly involved in managing either suspected or confirmed cases of COVID-19. WHO, its daily situation report dated 8th April 2020, has reported 22,073 HCWs who have been detected to have COVID-19.

Concerns about the psychological distress of HCWs who are treating and caring for these patients are also emerging. The overall well-being and resilience of HCWs are key determinants to maintain an optimal healthcare response for appropriate patient management as well as to achieve good patient outcomes during this COVID-19 outbreak. We aim to review the impact of psychological stress of COVID-19 on HCWs in the ED and recommend various strategies that can help them during this uncertain and rapidly evolving situation.

PSYCHOLOGICAL CONCERNS OF HCWS

The outbreak of COVID-19 is not only a public health concern for general public, but it also causes great psychological distress amongst the medical staff. HCWs are under great pressure to be prepared to evaluate and treat increasing numbers of COVID-19 patients. Especially in the fast paced and uncertain environment of the ED, where many patients are extremely ill requiring resuscitation, the level of stress experienced by the ED staff is immense. Literature has reported that “dose” of stress increases the risk for psychological distress. The COVID-19 outbreak may be an unprecedented scenario for many HCWs, especially if they have not been involved in similar response to a global pandemic in the past. Previous studies have reported adverse psychological reactions to the 2003 SARS outbreak among health care workers⁽⁴⁻⁷⁾. Frontline HCWs treating patients with COVID-19 are possibly exposed to the highest risk of infection because of their close contact with many suspected or confirmed patients, and even they may have to work longer hours than usual^(8, 9). During and in the aftermath of an outbreak, about one in six medical staff members developed significant stress symptoms⁽¹⁰⁾. During the SARS outbreak, a study conducted among HCWs in the ED reported that nurses were more likely to develop distress and use behavioral disengagement than physicians⁽¹¹⁾. The fact that COVID-19 is human-to-human transmissible, more so from asymptomatic people,

may intensify the perception of personal risk to exposure. Additionally, increasing influx of suspected and confirmed cases of COVID-19 leading to overwhelming workload contribute to the pressures and concerns of HCWs⁽¹²⁾. Other factors include depletion of personal protection equipment in certain hospitals, lack of specific drugs, and widespread media coverage may all contribute to the development of stress in these HCWs. They are faced with loneliness, rigid expectations at work and continuously updated and modified workflows and protocols and uncertainty regarding effective disease control of this outbreak. They are worried about themselves getting infected or infecting their family members once they return home after work^(4, 13). HCWs are also affected by the stigma related to the COVID-19 virus and its impact, because the general population, especially neighbors, routinely misunderstand that medical staff will carry the virus when returning home, and thus face avoidance by the community due to this fear^(4, 5).

All this eventually leads to exhaustion, anger, high levels of stress and anxiety, depression symptoms and insomnia, all of which can have long term psychological implications⁽⁶⁾. A recent study indicated that women reported more severe symptoms of depression, anxiety, and distress. Moreover, working as a frontline HCW with direct contact of patients with COVID-19 was an independent risk factor for all these symptoms⁽¹⁴⁾. Non-medical HCWs have been shown to have a higher prevalence of anxiety, compared to medical HCWs like doctors and nurses. Stress was considered the primary cause of insomnia and other related psychological effects of working in hospitals during the previous SARS outbreak^(15, 16). HCWs work round the clock, with limited breaks, to save people's lives. This increased workload substantially impairs their ability to sleep, resulting in insomnia and sleep debt⁽¹⁷⁾. Low educational level and working in an isolation environment were also risk factors for insomnia. HCWs working in the quarantine area are always in close contact with infected cases and hence they face physical and mental exhaustion, leading to increased risk of insomnia due to high stress. The study also showed that HCWs in the insomnia group had more psychological problems⁽¹⁸⁾.

MANAGING STRESS DURING THE COVID-19 OUTBREAK

Difficulty in recognizing that they are stressed, a strong sense of work commitment and time constraints, fear or stigma of asking for help, can

prevent HCWs from requesting support if they are experiencing psychological stress. Monitoring and assessment of mental health and well-being of HCWs is important. Both institutional support as well as self-care strategies plays a vital role. In view of this, both the employee as well as the management of the healthcare institutions should be proactive in encouraging supportive care in an atmosphere free of stigma, coercion, and fear of negative consequences. HCW should primarily adopt self-care strategy which is usually multi-faceted. They should try and adopt coping strategies at work including brief relaxation breaks during shifts, working in teams, partnering inexperienced or new staff with the experienced colleagues to provide support, monitor stress and reinforce safety procedures, regular peer consultation and supervision, seeking out accurate information and mentoring to assist in making decisions and talking to colleagues to share work experiences⁽¹⁹⁾. After the shift, they should ensure adequate rest between shifts, scheduling time off work for gradual reintegration into personal life, eat healthy food, engage in physical activity, and stay connected with family and friends (e.g. via telephone, e-mail, social media or video conference). They should avoid using negative coping strategies such as use of tobacco, alcohol or other drugs, as they interfere with sleep cycles and worsen insomnia and associated stress. Frequent policy/workflow changes, and other ambiguities during the crisis also lead to anxiety, stress and depression⁽²⁰⁾. Thus, clear plans and policies can have a significant psychological impact on HCWs to reduce stress. Understanding of their own roles and expectations can help them focus on main issues they need to address at work, thus avoiding the uncertainty that can lead to anxiety and stress. The management of health care institution should be in contact and also occasionally meet up with HCWs to understand their needs and also to discuss the importance of stress management and psychosocial support for the workforce. Discussions could include the avenues that can be sourced for psychological support, optimal work/rest schedules, and support for the needs of family members of HCWs. Psychological support could include counseling services and development of support systems among colleagues. If peer support doesn't allay the stress, psychological assistance services, by trained psychologists, should be adopted. This support should be available at all times, adopting telephone-, internet-, and/or application-based counseling strategies. Every HCW should be aware of where

and how they can access mental health and psychosocial support services and the hospital should facilitate access to such services. As the pandemic evolves, important strategies and policies, at departmental, institutional and national levels are needed to support HCWs who are susceptible to psychological distress. As noted earlier, non-medical personnel are at higher risk of being stressed in this situation, educational interventions should target their understanding of the disease, and appropriate use of infection control measures as well as available support. At national level, governments should educate the general public regarding the myth and dangers of stigmatizing the HCWs, who are tirelessly working to combat the pandemic. The identification of potential risk factors, described in this article, can aid the institution leaders as well as the psychologists to screen the susceptible HCWs rapidly and offer personalized treatment. A recent COVID-19 study demonstrated that frontline nurses had significantly lower traumatization scores than non-frontline nurses and the general public ⁽²¹⁾. HCWs in Singapore had increased mental preparedness and adopted stringent infection control measures in routine practice after the 2003 SARS experience. HCWs should participate in departmental as well as hospital-wide training as well as simulation sessions. Thus, another way of overcoming stress to better manage future pandemics is through adequate preparedness ⁽²²⁾. All these strategies adopted together can help provide stress reduction to the frontline HCWs.

REFERENCE

1. World Health Organization. Statement on the second meeting of the International Health Regulations (2005) Emergency Committee regarding the outbreak of novel coronavirus (2019-nCoV). [Available at: [https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-\(2005\)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-\(2019-ncov\)](https://www.who.int/news-room/detail/30-01-2020-statement-on-the-second-meeting-of-the-international-health-regulations-(2005)-emergency-committee-regarding-the-outbreak-of-novel-coronavirus-(2019-ncov))]. Accessed 10th April 2020.
2. World Health Organization. WHO Director-General's opening remarks at the media briefing on COVID-19 - 11 March 2020. [Available at: <https://www.who.int/dg/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19-11-march-2020>]. Accessed 10th April 2020.
3. World Health Organization. Coronavirus Disease 2019 (COVID-19) Situation Report – 82. 16th April 2020. [Available at: https://www.who.int/docs/default-source/coronaviruse/situation-reports/20200416-sitrep-87-covid-19.pdf?sfvrsn=9523115a_2]. Accessed 17th April 2020.
4. Maunder R, Hunter J, Vincent L, Bennett J, Peladeau N, Leszcz M, et al. The immediate psychological and occupational impact of the 2003 SARS outbreak in a teaching hospital. *CMAJ* 2003;168(10):1245-51.
5. Bai Y, Lin CC, Lin CY, Chen JY, Chue CM, Chou P. Survey of stress reactions among health care workers involved with the SARS outbreak. *Psychiatr Serv.* 2004;55(9):1055-7.

CONCLUSION

It is crucial to understand the psychological impact of the COVID-19 pandemic among the frontline HCWs. Protecting them is an important component of public health measure to deal with this global pandemic, and needs urgent attention. This article summarizes the various risk factors as well as strategies that can be adopted to reduce the impact of stress on these frontline HCWs. This will help guide institutional as well as national policies and interventions to maintain their psychological well-being, which will play a pivotal role in ensuring safety of our staff, along with the patients.

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SP conceived the idea for the manuscript and also contributed to the writing and editing of the review.

CONFLICT OF INTEREST

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6. Lee AM, Wong JG, McAlonan GM, Cheung V, Cheung C, Sham PC, et al. Stress and psychological distress among SARS survivors 1 year after the outbreak. *Can J Psychiatry*. 2007; 52(4):233-40.
7. Chua SE, Cheung V, Cheung C, McAlonan GM, Wong JW, Cheung EP, et al. Stress and psychological distress among SARS survivors 1 year after the outbreak. *Can J Psychiatry*. 2007;52(4):233-40.
8. Li L, Cheng S, Gu J. SARS infection among health care workers in Beijing, China. *JAMA*. 2003;290(20):2662-3.
9. Shih FJ, Gau ML, Kao CC, Yang CY, Lin YS, Liao YC, et al. Dying and caring on the edge: Taiwan's surviving nurses' reflections on taking care of patients with severe acute respiratory syndrome. *Appl Nurs Res*. 2007;20(4):171-80.
10. Lu Y, Shu B, Chang Y, Lung F. The mental health of hospital workers dealing with severe acute respiratory syndrome. *Psychother Psychosom*. 2006;75(6):370-5.
11. Wong TW, Yau JK, Chan CL, Kwong RS, Ho SM, Lau CC, et al. The psychological impact of severe acute respiratory syndrome outbreak on healthcare workers in emergency departments and how they cope. *Eur J Emerg Med*. 2005;12(1):13-8.
12. Wang W, Tang J, Wei F. Updated understanding of the outbreak of 2019 novel coronavirus (2019-nCoV) in Wuhan, China. *J Med Virol*. 2020; 92(4):441-7.
13. Nickell LA, Crighton EJ, Tracy CS, Al-Enazy H, Bolaji Y, Hanjrah S, et al. Psychosocial effects of SARS on hospital staff: survey of a large tertiary care institution. *CMAJ* 2004; 170(5):793–8.
14. Lai J, Ma S, Wang Y, Cai Z, Hu J, Wei N, et al. Factors Associated With Mental Health Outcomes Among Health Care Workers Exposed to Coronavirus Disease 2019. *JAMA Netw Open*. 2020;3(3):e203976.
15. Morin CM, Rodrigue S, Ivers H. Role of stress, arousal, and coping skills in primary insomnia. *Psychosom Med* 2003; 65(2):259-67.
16. Brooks SK, Dunn R, Amlôt R, Rubin GJ, Greenberg N. Thematic review of social and occupational factors associated with psychological outcomes in healthcare employees during an infectious disease outbreak. *J Occup Environ Med* 2018; 60(3):248-57.
17. Jehan S, Zizi F, Pandi-Perumal SR, Myers AK, Auguste E, Jean-Louis G, et al. Shift work and sleep: medical implications and management. *Sleep Med Disord*. 2017;1(2):00008.
18. Zhang C, Yang L, Liu S, Ma S, Wang Y, Cai Z, et al. Survey of Insomnia and Related Social Psychological Factors Among Medical Staff Involved in the 2019 Novel Coronavirus Disease Outbreak. *Front Psychiatry*. 2020;11:306.
19. US Department of Veterans Affairs. Managing Healthcare Workers' Stress Associated with the COVID-19 Virus Outbreak. [Available at: https://www.ptsd.va.gov/covid/COVID_healthcare_workers.asp]. Accessed 16th April 2020.
20. Wong EL, Wong SY, Lee N, Cheung A, Griffiths S. Healthcare workers' duty concerns of working in the isolation ward during the novel H1N1 pandemic. *J Clin Nurs*. 2012;21(9-10):1466-75.
21. Li Z, Ge J, Yang M, Feng J, Qiao M, Jiang R, et al. Vicarious traumatization in the general public, members, and non-members of medical teams aiding in COVID-19 control. *Brain Behav Immun*. 2020; [Epub ahead of print].
22. Reissman DB, Watson PJ, Klomp RW, Tanielian TL, Prior SD. Pandemic influenza preparedness: adaptive responses to an evolving challenge. *J Homel Secur Emerg Manag*. 2006;3(2):1-27.