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On 11 March 2020, a day when human beings united together to fight the pandemic of coronavirus disease 2019 (COVID-19), the World Health Organization declared the pandemic.¹ The infection can lead to serious complications that need admission of patients to hospital as well as ventilatory support.² The Sudan government instituted numerous measures to reduce the risk of transmission in the community, including lockdowns, social distancing, self-isolation and the wearing of personal protective equipment (PPE).³ However, these measures encountered various obstacles and eventually failed. The hospital system in Sudan consists of both government and private sectors, and due to fear and to avoid the risk of COVID-19 spreading, many hospitals closed their doors.⁴ This aggravated the situation and, as a consequence, people have shown their frustration by verbally abusing and threatening to physically assault doctors and other healthcare workers.

Current situation in Sudan

The healthcare system in Sudan is faces a number of obstacles, including a shortage of PPE and essential medications. Doctors and other medical staff found themselves facing the disease without essential equipment or even measures that would protect themselves and their patients.

Several assaults on doctors were reported, especially in emergency rooms, as well as medical directors of hospitals when meeting with families to address their concerns. A small portion of the population in Sudan believes that COVID-19 is a political game to lock down the country, which is going through an economic crisis. Others believe that the country is free of COVID-19 and this disease is only a flu mistaken to be COVID-19.

Challenges faced by medical staff

The health system in Sudan was barely managing the day-today cases presenting to hospitals. Under these unusual circumstances, the heavy load of patients now presenting to this fragile system in relation to the available services, resources and staff has led to a total a loss of flow within these facilities and the overcrowding of rooms, contributing to the nosocomial spread to hospital staff, uninfected patients, patients presenting with other health concerns and family members.

Reflecting on the staff response to the pandemic, a poor commitment to infection control policies was noted due to several factors. A huge number of doctors wear their PPE incorrectly. Moreover, some fail to select the appropriate level of PPE needed due to a lack of knowledge or the absence of equipment. A shortage of PPE and wards with poor ventilation and no air conditioning drives doctors to avoid wearing the heavy and hot PPE.

Another challenge faced by these front-liners is the unavailability of appropriate accommodations and transport to and from hospitals. Some doctors return home to their families, spreading the infection to family members. Moreover, using public transport is a great hazard to others and actively spreads the infection.

Doctors must constantly deal with angry patients and families, especially when counselling them about their COVID-19 diagnosis or when breaking the news that a patient has passed away. Some family members deny the diagnosis and accuse doctors of manipulating results. They practice both physical and verbal violence against doctors, destroy wards and machines and forcibly enter doctors' rest lounges during hysterical attacks.

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Strategies to combat the violence

Different strategies can be used to combat the violence, including good communication with patients and their families. This can be achieved by training medical staff as well as providing counsellors to talk with the patients and their families. Another measure is use of the media, especially Facebook and Twitter, as these types of media can be a source of misinformation that can lead to increased anxiety and fear. Therefore social media platforms should work together with the government to provide accurate information about the disease, mode of transmission, diagnosis and treatment and management options.

The current Sudanese government enacted a new law to protect healthcare workers. This law punishes individuals who abuse healthcare workers with up to 10 y imprisonment as well as a financial fine. This legislation has helped in decreasing the rate of violence against doctors.

Psychological impact on doctors

Taking a moment to reflect on the last few months, several factors may have exacerbated occupational fatigue and burnout among doctors, including the anticipated, and now experienced, overload of the capacity of the healthcare system to respond to the pandemic and the high risk posed to healthcare workers on the front lines and their family members as a result of constant exposure.⁵

Doctors have experienced huge performance pressure as well as increased unfavourable psychiatric outcomes due to overwork, inadequate protection from contamination and frustration from failure to provide optimal patient care. Especially in a developing country like Sudan, sometimes hospitals run out of oxygen cylinders and fundamental lifesaving medications, and doctors can do nothing while their patients suffer and die.

Several factors contribute to the distress of doctors, including feelings of vulnerability or loss of control and concerns about selfhealth, spreading the virus to their family and others and being isolated. In addition, they must dealing with critically ill patients with a high tendency to develop complications and an increased mortality rate.

We recommend psychological support group sessions be provided to these doctors along with adequate breaks between shifts.

This pandemic and the surging health crisis unleashed various health and psychological challenges faced by healthcare workers. It amplified the workload and stress experienced by doctors, as well as causing violent attacks. These individuals are fearlessly risking their lives and the health of their families to save others with minimal resources and sometimes absent equipment and medication. It is no wonder that a notable rate of distress and work burnout has occurred.

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References

- 1 Cucinotta D, Vanelli M. WHO declares COVID-19 a pandemic. Acta Biomed. 2020;91(1):157-60.
- 2 Phua J, Weng L, Ling L, et al. Intensive care management of coronavirus disease 2019 (COVID-19): challenges and recommendations. Lancet Respir Med. 2020;8(5):506–17.
- 3 Altayb HN, Altayeb NME, Hamadalnil Y, et al. The current situation of COVID-19 in Sudan. New Microbes New Infect. 2020;37:100746.
- 4 Elhadi YAM, Adebisi YA, Hassan KF, et al. The formidable task of fighting COVID-19 in Sudan. Pan Afr Med J. 2020;35(Suppl 2):137.
- 5 Sasangohar F, Jones SL, Masud FN, et al. Provider burnout and fatigue during the COVID-19 pandemic: lessons learned from a high-volume intensive care unit. Anesth Analg. 2020;131(1): 106–11.