



The frontline of the COVID-19 pandemic: Healthcare workers

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The outbreak of Coronavirus disease 2019 (COVID-19) firstly appeared in China on December 1, 2019 and led to severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) rapidly spread to many other countries. The World Health Organization (WHO) declared it as a pandemic on March 11, 2020. The pandemic affected approximately 3,187,952 people in the World and 225,604 people died until April 29, 2020. In the early period, many developed countries considered the COVID-19 outbreak as a simple flu epidemic. By implementing the herd immune strategy, they aimed to gain immunity by allowing a certain number of people to have mild illness and to easily control the outbreak within a few months. However, the virus spreads faster than its ancestors such as the SARS-CoV and the Middle East respiratory syndrome coronavirus (MERS-CoV) with an estimated death rate of 2 to 3%.¹ It is still unclear how long the outbreak will last, what is the most effective treatment for the virus, and when normalization will begin. The delay in taking precautions has led to a rapid increase in the number of patients in many developed countries and a sudden collapse of healthcare capacities that cannot respond to these demands. The number of hospital beds, intensive care capacities and number of ventilators could not meet the need. For this reason, an intense and devoted period has started for healthcare professionals. Many physicians working in pandemic hospitals started to live in separate places away from their families for isolation purposes. Because

the transmission rate of COVID-19 is quite higher than the flu, healthcare workers are at increased risk of infection, especially when performing physical examination and applying respiratory devices such as nebulizer treatments, oxygen cannulas or noninvasive ventilation.^{2,3}

In this period, healthcare facilities should ensure the early recognition and isolation of possible or definite COVID-19 patients, use of recommended personal protective equipment (PPE) to minimize the staff's exposure and maintain the health workforce.³ Most of the healthcare workers had symptoms of depression (50.4%), anxiety (44.6%), insomnia (34%) and distress (71.5%) due to the psychological stress of exposure to COVID-19.⁴ Preventive strategies for all workers in a healthcare setting are warranted to reduce the risk of transmission. These measures include personal hygiene measures, such as washing hands and applying respiratory hygiene (covering coughs), using PPE, maintaining social distance and avoiding crowds and, if possible, close contact with ill individuals. Despite all precautions, in China, more than 3,300 healthcare workers were infected (4% of the 81,285 reported infections). In Spain, nearly 6,500 (13.6%) medical personnel were infected among 47,600 total cases until March 25, 2020 and this was 1% of the health system's workforce.⁵ In Italy, 9% of Italy's COVID-19 cases was healthcare workers. The rate of infections among nurses and other healthcare staff is higher.⁶ In Italy, France and Spain, more than 30 healthcare workers have died of the COVID-19.⁷



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According to unofficial information, the Turkish Medical Association (TTB) reported that 3,474 healthcare workers, 38% of which were physicians, were diagnosed with COVID-19.⁸

Healthcare workers were expected to comply with these measures in all areas that are contaminated (pandemic) and decontaminated. In a China study, medical personnel working on the COVID-19 front lines had a lower frequency of burnout (13% vs. 39%) and less worried about being infected when compared to medical personnel working on their usual wards for uninfected patients.⁹ Contrary, frontline healthcare workers showed a higher risk of symptoms of depression 1.52-fold, anxiety 1.57-fold, insomnia 2.97-fold and distress 1.60-fold in another survey study.⁴ As there are many asymptomatic carriers, healthcare workers are very likely to become infected inside and outside the hospital. However, it is noteworthy that healthcare workers other than doctors and nurses sometimes do not show the same concentration in common areas and may violate the rule of maintaining social distance. The risk of transmission of these latter employees were observed to be mostly caused by non-hospital contacts. The increase in the number of infected healthcare workers has increased the workload of the rest. Because thousands of healthcare workers who are infected have to self-isolate themselves, they have to stay away from work for at least 14 days which depletes the already exhausted workforce.⁶ Currently, Turkish health minister declared that the number of healthcare workers infected with COVID-19 until today was 7,428 in Turkey, which was approximately 6.5% of all infected individuals in the country.

The first case in our country was seen on March 11, 2020, and the number of cases increased gradually in the following days. The Ministry of Health and Science Committee prepared the national COVID-19 guidelines, successfully managed the whole process from the beginning and continues to take the necessary measures to prevent the spread of the outbreak. In our country, the number of hospital capacity, intensive care units, ventilators and health personnel seems sufficient. However, the most important task here is still on health professionals. Healthcare professionals have three important tasks: treating patients, protecting themselves from contamination, and finally not infecting their patients, families and friends with COVID-19. Awareness of not only doctors and nurses but also all hospital staff should be kept in high concentration until vaccine or effective treatment is found or the outbreak is

controlled.

Conflict of interest

The author declared that there is no potential conflict of interest with respect to the research, authorship, and/or publication of this article.

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