



LETTER TO THE EDITOR

COVID-19 pandemic and health anxiety among nurses of intensive care units

Coronavirus disease 2019 (COVID-19) is a new human infectious disease caused by the severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2). The virus has spread to most countries around the world. Simultaneous with its rapid outbreak, the global healthcare system has been overwhelmed (Usher, Bhullar *et al.* 2020; Vardanjani, Moayedi *et al.* 2020). The global state of emergency caused by COVID-19 has put tremendous pressure on nursing services. High work burden, insufficient resources and excessive work environment stressors can adversely affect intensive care unit (ICU) nurses' mental health (Pappa, Ntella *et al.* 2020). If these stressors are not effectively addressed, they may not only weaken immune their system and increase the risk of COVID-19 infection, but can negatively affect the quality and safety of medical services (Shen, Zou *et al.* 2020). Considering that the International Council of Nurses has recognized a main role for nurses in combating COVID-19 (Millar 2020), improving nurses' mental health is essential to control the pandemic (Millar 2020). Increased workload, physical burnout, inadequate personal protective equipment, infection risk and frequent difficult ethical decisions regarding care priorities have led to severe psychological stresses in health-care workers. Nurses in particular are disproportionately affected because they spend more time caring of COVID-19 patients compared with other health providers (Liu, Han *et al.* 2020; Pappa, Ntella *et al.* 2020). Studies have reported a high prevalence of anxiety in health staff caring of COVID-19 (Pappa, Ntella *et al.* 2020). A recent Chinese study found that one-sixth of health personnel suffered from psychological problems amid the outbreak of COVID-19, of whom only 35% sought treatment (Liu, Han *et al.* 2020), nurses working in ICUs at baseline experience difficult working conditions and heavy responsibilities such as long and continuous care of critically ill and dying patients. Consequently, these nurses are exposed

to the highest levels of stress during this pandemic (Jamshidian, Kiani *et al.* 2018). In one study, the prevalence of anxiety in nurses caring of COVID-19 patients in ICUs was reported as 17.6% (Liu, Han *et al.* 2020). Nurses are exposed to various stressors due to the nature of their job. These include prolong and continuous confronting with critically ill and dying patients and feeling a high degree of responsibility. These events and their consequent destructive psychological and physiological effects can lead to more adverse consequences such as various diseases, absenteeism, reduced performance, impaired emotional function, decreased productivity, increased risk of anxiety, which endanger humans' lives. Beside these, the nurses working in ICUs are at higher risk of being infected with COVID-19 due to a more special working environment and working with more severely ill patients who are under mechanical ventilation and require conducting dangerous and invasive procedures such as suctioning airways secretions and oral cavity, that increase the risk of transmission of COVID-19. (Millar 2020; Pappa, Ntella *et al.* 2020; Shanafelt, Ripp *et al.* 2020). Health anxiety is one of the important factors contributing to the higher levels of stress in ICU nurses (Jamshidian, Kiani *et al.* 2018). Health anxiety is a cognitive disorder caused by misconceptions about disease symptoms and physical manifestations resulting from a person's beliefs about his/her illness or health (Fergus, Kelley *et al.* 2016; Jamshidian, Kiani *et al.* 2018).

Health anxiety is associated with four specific misconceptions: The assumption of having the disease, fear of the disease, incapability to cope with the disease and the inadequacy of medical treatments (Taylor & Asmundson 2004). This form of anxiety is more common in less experienced and often younger nurses. Severe health anxiety may lead to depression, headaches, insomnia, and even suicidal thoughts (Janzen Claude, Hadjistavropoulos *et al.* 2014; Taylor & Asmundson 2004). The most important factor leading to health anxiety in health personnel, especially nurses, amid the COVID-19 pandemic is the high rate of healthcare worker infection and mortality. In Italy, 10% of health personnel contracted and 3% of them died of the

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disease (Herron, Hay-David *et al.* 2020). Considering that pandemics of communicable diseases such as COVID-19 may persist for months, it is necessary for nurses, especially nurses in ICUs, to have a long-term strategy for wellness (Shanafelt, Ripp *et al.* 2020). Therefore, immediate interventions are necessary to strengthen psychological resilience and increase the capacity of healthcare systems (Pappa, Ntella *et al.* 2020; Shanafelt, Ripp *et al.* 2020; Shen, Zou *et al.* 2020). The perception that this pandemic is uncontrollable likely contributes to health anxiety. To that end, improving effective communication, reducing on-duty hours, providing adequate breaks, providing adequate access to personal protective equipment, and specialized training on the treatment of COVID-19 patients can reduce nurses' anxiety. Furthermore, the provision of timely and appropriate support systems including mental health counselling (via telephone, media, or multimedia teams) will mitigate anxiety (Pappa, Ntella *et al.* 2020; Shanafelt, Ripp *et al.* 2020). Previous studies have examined the incidence of psychological outcomes and their associated risk factors among healthcare workers during outbreaks of infectious diseases. However, the impact of the current crisis on the mental health of nursing staff is likely to be unprecedented (Pappa, Ntella *et al.* 2020). Therefore, appropriate, timely and targeted interventions are needed to improve our ICU nurses' mental health status, reduce persistent psychological complications such as post-traumatic stress disorder, a common complication of previous epidemics such as SARS and MERS (Brug, Aro *et al.* 2004; Hall, Tokars *et al.* 2014). The interventions that can be considered to reduce anxiety include: Creating an appropriate environment for effective communication, limiting shift change times, providing a place for resting, providing extensive access to protective equipment and implementing strict rules on their use and management, and providing specialized training about the treatment process of COVID-19 patients. These undertakings can cause the anxiety due to a lack of perceived awareness and their thinking of the situation as an uncontrollable condition. Providing timely and appropriate support including the use of mental health professionals for consulting with ICU nurses, as well as educations through media and multimedia programs, lectures, group counselling, individual counselling, online platforms and implementing mental health phone lines can be useful. It is recommended that nurses express their feelings by talking, drawing, singing, exercising and communicating with their colleagues who have similar experiences or feelings as

they can understand each other and help themselves to improve.

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