

Psychological Effects of COVID-19 on Health Care Workers: Some Lights From Previous Pandemics

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Received: 11 August 2020

Published: 14 August 2020

Keywords: *COVID-19; Mental Stress; Health Care Workers*

The mental and physical stress in treating patients during pandemics facing doctors nurses and other health care workers dealing with earlier stages of infectious disease outbreak is prominent, as they are exposed to a variety of mental health issues like insomnia, anxiety and depression. Doctors and nurses act as important force in the fight against epidemics as H1N1, SARS, Ebola and finally COVID-19 in December 2019 in Wuhan, Hubei province in China that quickly spread to the whole country [1]. Doctors and nurses work under intensive pressure from the patients and from the community in order to reduce human-to human transmission in hospital and in treating patients with COVID-19 [2-5].

Though physicians are so critical to effective responses to public health crises, they are exposed to get the infections from patients, and exposed to mental stress due to exposure of unexpected suffering and death. In the 14th century, doctors and nurses are exposed to Black Death (Plague) in Europe, not only because they succumbed to the bubonic plague, but also, doctors are too afraid to expose themselves to infected patients [6]. Doctors, nurses and ambulance men are more likely to get infection than any other health professionals. In China by February 11, 2020, about 1716 medical workers were infected by COVID-19 constituting about 3.8% of the country confirmed cases, that meanwhile, six of them were died from the disease, accounting for 0.4% of deaths in China [7].

High expectations, lack of time skills social support may cause occupational stress that in turn can lead to anxiety, post traumatic disorder, so that health care workers may be not able to provide high quality medical services [8,9].

Several psychological problems were observed in physicians dealing with pandemics and emergence of symptoms related to anxiety and depression. For example, COVID-19 health workers are experiencing a sort of guilt on watching patients dying alone in front of them, and their need to inform loved ones via technology rather than in person [10,11]. The guilt will be transmitted directly to a state of depression and anxiety. During SARS outbreak in 2003, health care workers were suffering in Taiwan from anxiety symptoms for a short term that eventually translated to depression.

About 75% of 1257 health care workers were suffering from symptoms of anxiety and depression in the outbreak of SARS [12].

In Europe, in Greece during pandemic swine flu (H1N1) in 2009, Goulia *et al.* 2010 [13] have reported that more than 50% of health care workers in a tertiary hospital were suffering from moderate to high state of anxiety. Also another study in Taiwan has reported that 30% of physicians and 42% of nurses have the symptoms of fear and anxiety due to avian flu (H5N1) [14].

In the outbreak of Ebola virus outbreak, health care workers suffered both anxiety and depression, also health care workers felt a loss of social connectedness in their communities [15].

Recent research study in Singapore conducted in the period from 19 February to 13 March 2020, it included health care workers in two major tertiary hospitals in Singapore who were caring for patients with COVID-19, of invited 500 health care workers 470 persons(94%) have participated in the study, the study revealed that 14.5% of them showed symptoms of anxiety, 8.9% have showed also symptoms of depression and 7.7% showed post-traumatic stress disorder (PTSD) symptoms. 28.7% of the sample were doctors and 34.3% of the sample were nurses, the rest of sample were allied health professionals and technicians [16].

Another problem facing health health care workers is the absence from work during pandemics like avian flu, nearly one of every four health care workers were absent [17]. Also another study conducted in Japan has revealed that 20-30% of health care workers during H1N1 pandemic, showed a great hesitation about working at the time of pandemic [18]. Lack of sufficient preparation to deal with pandemics is another problem facing health workers. El Gaafary *et al* 2010 [19], have reported that 30% of physicians showed no preparedness to deal with H1N1 pandemic and they showed lack of personal protective equipment training and shortage of these equipment and so many nurses were having to treat COVID-19 without adequate protection and this was a source of anxiety fear.

Health care workers are in the need of psychological support, due to the p to exposed to it. This support can be given through their or through support from their colleagues i.e psychologists, so it is crucial to reduce the psychological upsets for mental health in the workers, they face during pandemics and enhancing the clinical skills through training esp. through simulation scenarios and increase their preparedness among all health care workers and getting the skills and learning them how to keep with mental illness like anxiety and depression during pandemics.

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