

Depression, Anxiety, and Psychological Distress among Health-care Providers During the Outbreak of the Life-threatening Coronavirus Disease (COVID-19)

Sanjeev B Khanagar¹, Ali Al-Ehaideb², Satish Vishwanathaiah³, Prabhadevi C Maganur⁴, Saranya Varadarajan⁵, Shankaragouda Patil⁶

The Journal of Contemporary Dental Practice (2020): 10.5005/jp-journals-10024-2836

“The Concept of total wellness recognises that our every thought, word, and behavior affects our greater health and well-being. And we, in turn, are affected not only emotionally but also physically and spiritually.”—Greg Anderson

The above quote is absolutely pertinent at this juncture where the whole world is being tormented by the deadly coronavirus disease (COVID-19) infection. It is understandable that disease outbreaks significantly impact the normal life/well-being of the people dwelling in the affected regions. This is especially more relevant to outbreaks of respiratory infections where droplet borne transmission makes the disease highly contagious. Respiratory infections are challenging to control as community level spread is unavoidable due to lack of social distancing in the initial phase when the disease catches humanity unaware. The first ever case of coronavirus disease (COVID-19) was reported in Wuhan, China, in December 2019 and soon became an issue of global concern. It caused a global-level medical emergency in just a few weeks with scores of patients being affected. Many continents across the globe started buckling under the stress of this killer disease that not only took away several lives but has also jeopardized the global economy. It is noteworthy to mention that humanity is currently only facing the disease challenge and is yet to face the economic aftermath of this situation.

This pandemic disease outbreak has raised significant public health concerns as it has caused tremendous psychological distress among people. The most common psychiatric disorder that has affected humanity after this outbreak is post-traumatic stress disorder (PTSD) which by classic definition is “a mental health condition triggered by a terrifying event, causing flashbacks, nightmares and severe anxiety.” There have been reports of PTSD affecting the Chinese population after the COVID-19 spell. It has been found that females were more affected by PTSD than males.¹

As earlier mentioned, COVID-19 disease rapidly spreads by droplet transmission. This is a significant concern in dental care services where aerosol is generated by nonsurgical and surgical procedures that could affect health-care providers as well as patients utilizing the service. A reliable clinical report from the school and hospital of stomatology, Wuhan University has confirmed nine patients affected by coronavirus disease in their setup comprising of three dental surgeons, two nurses, two administrative staff, and one dental postgraduate student.² This ghastly finding goes to prove that dental health-care providers are at high risk of contracting the disease from affected patients through close contact and aerosol-borne transmission. This situation puts health-care providers in a tough predicament that causes ample stress to them in performing

¹Preventive Dental Science Department, College of Dentistry, King Saud Bin Abdulaziz University for Health Sciences, Riyadh, Kingdom of Saudi Arabia

²Department of Preventive Dental Sciences, College of Dentistry, King Saud bin Abdulaziz University for Health Sciences, Riyadh, Saudi Arabia; Dental Services, King Abdulaziz Medical City-Ministry of National Guard Health Affairs, Riyadh, Kingdom of Saudi Arabia; King Abdullah International Medical Research Center, Riyadh, Kingdom of Saudi Arabia

^{3,4}Department of Preventive Dental Sciences, Division of Pedodontics, College of Dentistry, Jazan University, Jazan, Kingdom of Saudi Arabia

⁵Department of Oral Pathology and Microbiology, Sri Venkateswara Dental College and Hospital, Thalambur, Chennai, Tamil Nadu, India

⁶Department of Maxillofacial Surgery and Diagnostic Sciences, Division of Oral Pathology, College of Dentistry, Jazan University, Jazan, Kingdom of Saudi Arabia

Corresponding Author: Sanjeev B Khanagar, Preventive Dental Science Department, College of Dentistry, King Saud Bin Abdulaziz University for Health Sciences, Riyadh, Kingdom of Saudi Arabia, Phone: +966 592349770, e-mail: sanjeev.khanagar76@gmail.com

How to cite this article: Khanagar SB, Al-Ehaideb A, Vishwanathaiah S, et al. Depression, Anxiety, and Psychological Distress among Health-care Providers During the Outbreak of the Life-Threatening Coronavirus Disease (COVID-19). *J Contemp Dent Pract* 2020;21(5):471–472.

Source of support: Nil

Conflict of interest: None

their regular duties. This is by itself enough to cause PTSD in dental health professionals.

Respiratory disease outbreaks in the past have caused significant stress, emotional turmoil, and traumatic psychological experiences among all the health-care providers in concern. Studies have indicated that health-care providers are under tremendous mental agony not only during the epidemic state but also thereafter when they suffer the long-term psychological consequences. There is a body of literature that reported psychological consequences in health professionals after the severe acute respiratory syndrome (SARS) outbreak, Ebola virus outbreak, and most recently with the Middle East respiratory syndrome-related coronavirus outbreak.^{3–5}

Long working hours, untimely emergency calls, a quarantined state, and separation from kith and kin due to professional commitments puts health-care providers under extreme stress,

anxiety, and frustration. More worrying is the stigmatization and rejection that these professionals face in their neighborhood due to a fear that they could transmit the disease. It is saddening but remains a truth that doctors who are celebrated as noble professionals are portrayed in this situation as social evils spreading disease in their neighborhood. This situation could cause mental depression which, in turn, could cause PTSD.⁶ In fact, a study has reported alcohol abuse and dependency symptoms in health-care workers which has been positively correlated with a quarantined state.⁷

The results from a study reported on the mental health outcomes among 1,257 health-care workers attending to COVID-19 patients in 34 hospitals in China were alarming. Half of the study population reported symptoms of mental depression, anxiety, and insomnia. In total, 70% of the study population also reported psychological distress. Again, in this study too, females were affected more than males.⁸ These findings succinctly highlight the fact that PTSD is a disease with female predilection. A similar study performed during the acute SARS outbreak reported that 89% of health-care workers who were in high-risk situations had experienced psychological symptoms.⁹

A thorough and detailed understanding of the etiopathogenesis of PTSD sheds light on the importance of health-care providers in the society and the pivotal role they play during life-threatening pandemic outbreaks. The need of the hour is to ensure that health-care workers are kept happy as they are toiling to save the lives of numerous patients who are in their deathbeds struggling to come back alive. The term “happy” in this context not only means regular motivation and inspiration but in a broader context translates to their safety. It is at this point that we have to understand that doctors need safety when they treat patients. This can be provided in the form of high-quality sterile personnel protective equipment (PPE). The administration and government health authorities should regularly ensure that PPE are available in all hospitals and are replenished on a regular basis. Needless to mention is the fact that doctors in intensive care units should be provided with high-speed internet services. This facility will help them connect with their family and the outside world during the crisis.

Health-care providers should be motivated to maintain a healthy habit free lifestyle, which includes eating healthy junk-free food with adequate sleep and regular exercise. Regular sessions

of motivation during the crisis by clinical psychologists can also have a significant impact on social and psychological behavior of health-care providers. As the famous quote goes: “Health is a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity”—World Health Organization. These golden words are applicable not only to patients but also to doctors who are regraded the sentinels of the society during life-threatening pandemics.

“Be safe and Keep safe.”

REFERENCES

1. Sun L, Sun Z, Wu L, et al. Prevalence and risk factors of acute post-traumatic stress symptoms during the COVID-19 outbreak in Wuhan, China [published online march 10, 2020]. medRxiv DOI: 10.1101/2020.03.06.20032425.
2. Meng L, Hua F, Bian Z. Coronavirus Disease 2019 (COVID-19): emerging and future challenges for dental and oral medicine. *J Dent Res* 2020;99(5):481–487. DOI: 10.1177/0022034520914246. <https://journals.sagepub.com/doi/full/10.1177/0022034520914246>. Accessed on April 1, 2020.
3. Shiao JS, Koh D, Lo LH, et al. Factors predicting nurses' consideration of leaving their job during the SARS outbreak. *Nurs Ethics* 2007;14(1):5–17. DOI: 10.1177/0969733007071350.
4. Maunder RG, Lancee WJ, Balderson KE, et al. Long-term psychological and occupational effects of providing hospital healthcare during SARS outbreak. *Emerg Infect Dis* 2006;12(12):1924–1932. DOI: 10.3201/eid1212.060584.
5. Lin CY, Peng YC, Wu YH, et al. The psychological effect of severe acute respiratory syndrome on emergency department staff. *Emerg Med J* 2007;24(1):12–17. DOI: 10.1136/emj.2006.035089.
6. Brooks SK, Webster RK, Smith LE, et al. The psychological impact of quarantine and how to reduce it: a rapid review of the evidence. *Lancet* 2020;395(10227):912–920. DOI: 10.1016/S0140-6736(20)30460-8.
7. Wu P, Liu X, Fang Y, et al. Alcohol abuse/dependence symptoms among hospital employees exposed to a SARS outbreak. *Alcohol* 2008;43(6):706–712. DOI: 10.1093/alcalc/agn073.
8. Lai J, Ma S, Wang Y, Cai Z, et al. Factors associated with mental health outcomes among health care workers exposed to coronavirus disease 2019. *JAMA Netw Open* 2020;3(3):e203976. DOI: 10.1001/jamanetworkopen.2020.3976.
9. Chua SE, Cheung V, Cheung C, et al. Psychological effects of the SARS outbreak in Hong Kong on high-risk health care workers. *Can J Psychiatry* 2004;49(6):391–393. DOI: 10.1177/070674370404900609.