Since January 2020 Elsevier has created a COVID-19 resource centre with free information in English and Mandarin on the novel coronavirus COVID-19. The COVID-19 resource centre is hosted on Elsevier Connect, the company's public news and information website.

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Letter to the Editor

An evolving problem—Mental health symptoms among health care workers during COVID-19 pandemic

Worldwide, the health care system has been stretched to its limit with the increasing number of people presenting with Coronavirus disease 2019 (COVID-19. While the world's attention is focused on the physical wellbeing of the general population, the mental wellbeing of the health care workers (HCW) has received less attention. Its rapid transmission has created a sense of urgency as the world continues to grapple with the reality of how highly infectious and fatal the disease can be. Unfortunately, mental health has taken a back seat for the most part compared to the attention the physical impact of the disease has received during the pandemic (Xiang et al., 2020). A recent editorial by Tandon (2020) tried to address the question of the relevance of COVID-19 and Psychiatry with each other (Tandon, 2020). One should not be surprised that the initial responses of colleagues about the relevance of COVID-19 and psychiatry were in the negative. However, their views changed in the affirmative after the author explained the mental health effects of COVID-19 on the general population and also among healthcare professionals (Tandon, 2020).

We reviewed the literature of the various mental health symptoms among HCW during the COVID-19 pandemic to better understand why mental health is relevant during COVID-19 especially among HCW. Our search included common databases like PUBMED and EMBASE using keywords from the thrust of our paper with search terms such as mental health, anxiety, depression, acute stress disorder, fear, stress, panic disorder, loneliness, COVID-19, severe acute respiratory syndrome coronavirus 2, and SARS COV-2. Articles were reviewed from December 2019 to April 2020. Seven cross-sectional studies were available as of May 1st addressing mental health problems among HCW during the COVID-19 pandemic (see Table 1).

The study conducted in China by Lai et al. found that nurses, women and frontline HCW were at higher risk of developing unfavorable mental health outcomes compared to their counterpart (Lai et al., 2020). A similar study conducted in China by Lin et al. reported that frontline HCW were more likely to have depression, anxiety, insomnia, and stress than non-frontline HCW (Lin et al., 2020). Lai et al. also found that being a woman and an intermediate cadre medical staff was associated with severe symptoms of depression, anxiety and distress (Lai et al., 2020). Xiao et al. (2020) identified various symptoms of mental health including anxiety, self-efficacy, stress, sleep quality and social support and analyzed them using a structural equation model (SEM) (Xiao et al., 2020).

These studies and other available papers on COVID-19 highlight some of the risk factors that may have influenced the severity of mental health symptoms among HCW. Some of the factors discussed were the increasing number of new cases, overwhelming workload, lack of personal protection equipment (PPE), lack of drug treatment/vaccines, lack of social support, lack of communication, lack of training in certain aspects, maladaptive measure, and media sensation about the pandemic.

Another mental health issue that can escalate among health care workers is anxiety. In Italy, one of the epicenters for COVID-19 in Europe, it was reported that some of the physicians developed insomnia and anxiety facing exceptional work and mental demand during this pandemic sometimes leading to unfavorable outcomes such as resigning from their jobs (Fagiolini et al., 2020). The study by Ahmed et al. among dental staff reported that their anxiety and fears increased due to a high risk of contracting the virus with exposure to droplets and aerosol (Ahmed et al., 2020). Health workers also fear the worse when they are at high risk of spreading the disease to families and friends (Tiong and Koh, 2013).

Limitation of these cross-sectional studies is the loss of temporal association Also, preexisting psychiatric conditions in study participants prior to study participation were not evaluated. The overlap of HCW being a member of the same community during the pandemic makes one wonder if the mental health symptoms are because of being an HCW working in the hospital or a member of the community in quarantine. However, more needs to be done for health personnel to prevent long term adverse health outcomes. Strategies important to get our world back to normal post COVID-19 are enshrined in making mental health assessment, support services, and ultimately making treatment options available to every HCW (Xiang et al., 2020). This will help the health systems better improve on mental health programs specially designed to prevent unfavorable mental health outcomes among HCW.

Therefore, we reaffirm that COVID-19 is relevant to psychiatry and Psychiatry is relevant to COVID-19.

Author's contribution

AO and OO both contributed to the conception, design of the manuscript, literature search, writing of the manuscript and final approval of manuscript.

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Table 1
Studies on mental health symptoms of health care workers during COVID-19 pandemic.

Author	Study site	Study question	Age mean	Gender	Sample size	Category of health care workers	Instrument used	Study Outcome
Ahmed et al. (2020)	30 countries 2020	Assess the anxiety and fear of getting infected with COVID-19	n/a	M = 160 (25 %) F = 490 (75 %)	650/669	Dentists	Structured questionnaire	Two third were anxious and scared of the devastating effect of the virus
Bohlken et al. (2020)	Germany 2020	Experience of the impact of pandemic on anxiety and sleep problems	n/a		396/2072	Physicians (Neurologists and psychiatrist)	Likert type questionnaire	18 % reported that the pandemic has triggered anxiety while 9% reported sleep problems
Xiao et al. (2020)	China 2020	Effects of social support on sleep quality and function of medical staff	40.58 ± 4.88 years	M 51 (28.3 %) F129 (71.7 %)	180/220	Doctors, Nurses	Self-Rating Anxiety Scale (SAS) General Self-Efficacy Scale (GSES), Stanford Acute Stress Reaction (SASR) questionnaire, Pittsburgh Sleep Quality Index (PSQI), Social Support Rate Scale (SSRS),	Anxiety Stress Self-Efficacy were dependent on sleep quality and social support
Lai et al. (2020)	China 2020	Degree of symptoms of depression, anxiety, insomnia, and distress	n/a	M = 293 (23.3 %) F = 964 (76.7 %)	1257/1830	Physicians Nurses	9 item Patient Health Questionnaire 7-item Generalized Anxiety Disorder scale 7-item Insomnia Severity Index, and 22-item Impact of Event Scale–Revised,	HCW particularly women, nurses and frontline HCW have a higher risk of developing unfavorable mental health outcomes.
Lin et al. (2020)	China 2020	Evaluate measures of depression, anxiety, insomnia, and distress	n/a	n/a	1431/2316	Physicians Nurses	9 item Patient Health Questionnaire 7-item Generalized Anxiety Disorder scale 7-item Insomnia Severity Index, and 22-item Impact of Event Scale–Revised,	Frontline HCW were more likely to have depression, anxiety, insomnia, and stress than non-frontline HCW
Moghadasi (2020)	Iran 2020	Evaluation of level of anxiety among medical staff	32.31 ± 4.44 years	M = 7 (50 %) F = 7 (50 %)	14/14	Physicians	Beck Anxiety Inventory	Mild level of anxiety found in only 2 physicians (mean level of anxiety 5.24 ± 3.79)
Shacham et al. (2020)	Israel 2020	Evaluate the association of COVID-19 factors and psychological factors with psychological distress	56.39 ± 11.18 years	M = 140 (41.4 %) F = 198 (58.6 %)	338	Dental Staff (Dentist and Dental hygienist)	Demands Scale—Short Version General Self-Efficacy Scale Kessler's K6	Elevated psychological distress was found among those who have background illness, fear of COVID-19 and higher overload

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