

## PSYCHOLOGICAL IMPACT OF THE SARS-COV-2/COVID-19 PANDEMIC IN HEALTHCARE PROFESSIONALS IN ALMADA-SEIXAL

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### Dear editor,

As in another countries, Portuguese healthcare professionals were placed at the front line of the COVID-19 pandemic, declared by the World Health Organization on March 11<sup>th</sup>, 2020. Due to the exponential growth of confirmed and suspected cases, critical mobilization and readiness of these professionals were needed, with a consequent burden of care (Santos 2020).

Given all the changes in the lives of healthcare professionals during this period, we aim to evaluate the psychological impact of the SARS-CoV-2/COVID-19 pandemic at this specific population, reproducing the study carried out in Japan, by Kunitaka Matsuishi and his research team, regarding the 2009 H1N1 pandemic (Matsuishi 2012).

Our cross-sectional, observational and analytical study targeted healthcare professionals, working during the pandemic period at Hospital Garcia de Orta (HGO), as well as in primary healthcare units related to the HGO's area of influence, the municipalities of Almada and Seixal, in Portugal. Anonymous data were retrieved from May to June 2021 and only those who expressed their informed consent were included. It was based on the application of three self-completion assessment instruments: a general questionnaire with socio-demographic, professional and general and mental health related data; the *19-Stress-Related Questions* questionnaire; and the *Impact of Event Scale – Revised* (IES-R). Our main goal was to determine specific stress-related factors and investigate the existence of post-traumatic stress symptoms.

We hope to contribute not only to ameliorate the knowledge about the psychological impact of COVID-19 on health professionals and its related factors, but also to enable awareness and planning of Mental Health responses aimed at the needs of this population.

Valid answers were received from 378 employees. Participants were mainly women (87.30%), with an average age of 41.29 years old (median of 40 years old), married or in a non-marital partnership (58.73%) and with a degree level (53.97%). Regarding professional role, 39.42% were nurses, 17.99% specialist physicians, 12.17% healthcare assistants, 11.90% secretaries, 10.58% diagnostic and therapeutic technicians

and 7.94% resident physicians. Most of them worked at general support services at the hospital (30.69%), followed by the ones working at medical specialty departments (24.07%) and primary healthcare units (15.61%).

From an illness perspective, 25.66% had previous diagnosis of a chronic physical illness and 7.67% of a psychiatric disorder (mainly depressive [48.28%] and anxiety disorders [34.48%]). Apart from tobacco and alcohol consumption (29.37%), there was no other reported psychoactive substance use. In the last year, 15.61% of all participants had Psychiatry and/or Psychology appointments. A percentage of 43.12% professionals cohabited with elderly, children, pregnant women and/or individuals with chronic illness. Outside the professional scope, 86.51% already knew at least one SARS-CoV-2 infected close relative or friend.

Concerning the *19-Stress-Related Questions*, only 8.47% never experienced anxiety about being infected and 2.37% about infecting their own family. Burden of increased work quantity or changed work quality was experienced by 88.09% and 88.36%, respectively. Complete lack of knowledge about prevention and protection from infection was reported just by 2.12% and about infectivity and virulence by 2.65% of these professionals. Only 4.23% felt protected by national and local government and 11.76% by their institution. Most of the respondents felt, at least sometimes, isolation (60.53%), insomnia (56.80%) and/or physical (81.17%) and mental (82.62%) exhaustion. However, motivation to work was maintained in 76.20% of professional, despite the feeling of having no choice but to work due to obligation in 54.26%.

In IES-R, participants indicated how distressing were difficulties related to the COVID-19 crisis, concerning the past seven days. The best cut-off score of IES-R for a probable diagnosis of Post-Traumatic Stress Disorder (PTSD) is 33 and above, which was found in 89.15% of our respondents. A score of 37 or more is high enough to suppress immune system's functioning and it was present in 84.39%.

In conclusion, this study examined the stresses experienced by healthcare professionals responding to COVID-19 pandemic in HGO and HGO-related primary care units in Almada and Seixal, Portugal. It was carried out approximately one year after the virus outbreak and three months after the third and worst virus wave in our country.

These results show us a very high burden of care among healthcare professionals during the pandemic (Bany Hamdan 2021). The diagnosis of PTSD may be considered when dealing with these professionals, since the majority show suggestive symptoms in our study. Factors such as access to information and adequate protection equipment, work environment and mental healthcare availability, as well as hospitals and governments policies, are critical to reduce the stress and psychological impact of a stressful event with the magnitude of COVID-19 pandemic on healthcare workers (Nagarkar 2022).

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## DELIRIUM AND COVID-19: THE NEED FOR PERSON-CENTERED CARE

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### Dear editor,

COVID-19 pandemic is expected to increase both incidence and duration of delirium in elderly patients, regardless of whether they are hospitalized or not for COVID-19 infection, due to difficulties in implementing proper preventive strategies (LaHue et al. 2020).

With increasing frequency, delirium is being recognized as an important neuropsychiatric component of COVID-19 infection, a presenting manifestation of the disease or as a complication upon admission (Low et al. 2021), while the World Health Organization recognizes disorders of consciousness and/or confusion as core features of the presentation of COVID-19 infection (Hawkins et al. 2021). Despite these, the evaluation of elderly patients with COVID-19 does not routinely include assessment for delirium or changes of mental status (O'Hanlon & Inouye 2020).

Delirium is among the commonest acute disorders in general hospital. It is related to increased duration of hospitalization and mortality, long-term cognitive and functional decline, and risk for institutionalization (Mcloughlin et al. 2020). Especially for patients with COVID-19, studies have shown that 20-30% of hospitalized patients with the infection will present or later manifest delirium. In severe cases, this rate increases to 60-70% (Mcloughlin et al. 2020).

The etiology of delirium in these patients is possibly multifactorial and is related to viral invasion in the central nervous system (CNS) (Sinanovic 2021). The secondary neurological effects include increased inflammatory mediators in the CNS, brain hypoxia and brain vascular injury, multi-organ failure, fever and dehydration, neurotransmitter imbalance and metabolic derangement (Emmertson et al. 2020). In critically ill patients of intensive care units the etiology is probably related to microvascular disease and inflammatory mechanisms (Hawkins et al. 2021).

There is a need for increased vigilance of elderly patients with COVID-19 infection in order to timely detect and acutely treat delirium, initially using non-pharmacological measures, if this is possible. Identification of at-risk patients is also important (Emmertson et al. 2020). Taking into consideration that no drugs are approved for the prevention or treatment of delirium, patient management is based on non-pharmacological measures and cessation of psychotropic drugs which are not necessary (LaHue et al. 2020).

Nevertheless, protective equipment used by nurses and physicians, and isolation of patients, resulting to limited communication, impede many of the preventive strategies for delirium. Furthermore, patients may have many preexisting cognitive deficits or memory disorders that deteriorate by the negative consequences of isolation, of drugs used for the treatment of infection and of the effects of COVID-19 (Low et al. 2021).

Treatment of delirium in patients with COVID-19 poses additional challenges related to matters concerning human resource management and bioethical problems concerning patient care and infection control, available nursing and medical time, and family visits (Peterson et al. 2021).

Prevention and treatment of delirium should be placed in the heart of politics, research, and education about COVID-19 infection. Since it bears many important negative consequences for the experience and the outcome of patients, the duration of hospitalization and continuity of care, it is imperative that necessary resources are directed towards research for effective strategies of prevention, identification of patients and management of delirium (Peterson et al. 2021).

Even though non pharmacological approaches are considered effective and consist the main methods of management of delirium in elderly patients, measures such as therapeutic communication and reorientation of patients, therapeutic activities, early mobilization, techniques of relaxation, and non-pharmacological management of sleep-wake disorders may be more difficult to implement under the current circumstances of nursing and medical work in a general hospital. In any case though, person-centered care must be at the core of our response to the vulnerable group of elderly patients (O'Hanlon & Inouye 2020).

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