



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.

Elsevier hereby grants permission to make all its COVID-19-related research that is available on the COVID-19 resource centre - including this research content - immediately available in PubMed Central and other publicly funded repositories, such as the WHO COVID database with rights for unrestricted research re-use and analyses in any form or by any means with acknowledgement of the original source. These permissions are granted for free by Elsevier for as long as the COVID-19 resource centre remains active.



Letter to the Editor

**Asia and COVID-19; The need to continue mental health care to prevent the spread of suicide in the elderly**

Dear Editor,

The probable impact of infection with severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2) on the mental health of patients and other individuals in the community, especially its probable role in the suicide situation at the community level, is an important issue. Since the onset of the COVID-19 pandemic, the unpredictability of the disease and uncertainty of its various aspects have led to the need to take care of people's mental health, especially those infected with the virus (Zandifar and Badrfam, 2020).

Okusaga et al., in a study of a group of patients with mental health disorders, reported a strong association between being seropositive for coronavirus and having a history of mood disorders compared to the control group (Okusaga et al., 2011). Also in a study by Hickie et al., some symptoms such as feeling unhappy or depressed and irritability followed by some viral infections were reported. According to their report, sometimes these symptoms persist for a relatively long time (Hickie et al., 2006).

According to some studies, immunological proteins, especially interleukins, can cause central neurobehavioral and emotional manifestations (such as depressed mood, anxiety and cognitive difficulties) during significant infections by acting on the central nervous system. Also, various factors affect a person's vulnerability to major depression, in the form of various genetic predispositions, neuroendocrine and psychosocial conditions and the age status of individuals (Gunaratne et al., 2013).

In a study conducted by Cheung et al. in Hong Kong after the severe acute respiratory syndrome-related coronavirus (SARS) epidemic among the elderly, the highest suicide rate between 1993 and 2004 was in the country at the height of the epidemic in 2003, with more than 40.35 per 100,000 elderly people. This rate was 28.44 per 100,000 elderly people in 2002 (Cheung et al., 2008). These results were also statistically significant. Although attributing this obvious change in suicide to SARS epidemic and its negative effects on mental health should be done with caution, the authors of this study attributed the most causal correlation with this phenomenon to the direct and indirect effects of that epidemic.

They also reported an increase in the prevalence of suicide in the post-epidemic year compared to the pre-epidemic period, and attributed this to the continued negative effects of the epidemic. They argued that the public mental health status should be given as much importance as epidemic control. According to them, one of the most important reasons for this was the fear and anxiety caused by epidemic conditions on the one hand and the reduction of social support on the other hand in this age group.

In another study in Hong Kong on the SARS epidemic, the prevalence of suicide among older men did not differ significantly in 2003 from previous years, but it was statistically significant higher in older women (Chan et al., 2006). They also did not report a statistically significant decrease in suicide rates between 1993 and 2002 for men as opposed to women. They noted that women were more likely than men to participate in health and social policy programs that have been in place since 1991. With the outbreak of SARS, important parts of the implementation of those policies were interrupted. This was reported as one of the effective factors in increasing the suicide rate in older women compared to men.

One of the important concerns in the field of mental health care at the present time and related to COVID-19 pandemic, is the concern of reducing mental health services in different age and gender groups. This raises worries about the potential risk of increasing suicide in the coming years. Furthermore, given some of the weaknesses in the structure of health care systems in the recent pandemic (Tandon, 2020), there is serious concern about the possible increase in the prevalence of suicide due to the global pandemic.

Given that significant proportions of the elderly population in Asian developing countries such as Iran (Zandifar and Badrfam, 2019) and South Asia countries (Hossain et al., 2020), suffer from mental health disorders, it is important to pay attention to the suicide situation among the elderly in these countries in the current pandemic situation. Another point of concern is the high prevalence of abuse of the elderly in Asia (Yan et al., 2015), which sometimes cover up to half of the elderly population (Abdi et al., 2019). The continuation of such abuses, combined with the specific conditions of the existing pandemic (Han and Mosqueda, 2020), could increase the risk of suicide in this age group more than ever before (Kim and Im, 2010).

It seems that mental health policymakers should pay special attention to this worrying situation, and mental health care programs should be of higher quality and using available tools at the same time as trying to control the existing pandemic.

Authors' contributions

All authors were equally involved in preparing the manuscript (conception and design of the study, searching for articles, writing final text, etc.)

Financial disclosure

None.

<https://doi.org/10.1016/j.ajp.2020.102452>

Received 11 September 2020

Available online 14 October 2020

1876-2018/© 2020 Elsevier B.V. All rights reserved.

Declaration of Competing Interest

The authors report no declarations of interest.

Acknowledgements

None.

References

- Abdi, A., Tarjoman, A., Borji, M., 2019. Prevalence of elder abuse in Iran: a Systematic review and meta-analysis. *Asian J. Psychiatr.* 39, 120–127.
- Chan, S.M.S., Chiu, F.K.H., Lam, C.W.L., Leung, P.Y.V., Conwell, Y., 2006. Elderly suicide and the 2003 SARS epidemic in Hong Kong. *Int. J. Geriatr. Psychiatry* 21 (2), 113–118.
- Cheung, Y., Chau, P.H., Yip, P.S., 2008. A revisit on older adults suicides and Severe Acute Respiratory Syndrome (SARS) epidemic in Hong Kong. *Int. J. Geriatr. Psychiatry* 23 (12), 1231–1238.
- Gunaratne, P., Lloyd, A.R., Vollmer-Conna, U., 2013. Mood disturbance after infection. *Aust. N. Z. J. Psychiatry* 47 (12), 1152–1164.
- Han, S.D., Mosqueda, L., 2020. Elder abuse in the COVID-19 era. *J. Am. Geriatr. Soc.* 27. <https://doi.org/10.1111/jgs.16496>.
- Hickie, I., Davenport, T., Wakefield, D., Vollmer-Conna, U., Cameron, B., Vernon, S.D., et al., 2006. Post-infective and chronic fatigue syndromes precipitated by viral and non-viral pathogens: prospective cohort study. *Bmj* 333 (7568), 575.
- Hossain, M., Purohit, N., Sultana, A., Ma, P., McKyer, E.L.J., Ahmed, H.U., 2020. Prevalence of mental disorders in South Asia: an umbrella review of systematic reviews and meta-analyses. *Asian J. Psychiatr.*, 102041.
- Kim, Y.-J., Im, M.-Y., 2010. A study on relationship between elder abuse and suicide risk. *Korean J. Community Living Sci.* 21 (3), 351–364.
- Okusaga, O., Yolken, R., H, Langenberg, P., Lapidus, M., Arling, T., A, Dickerson, F.B., et al., 2011. Association of seropositivity for influenza and coronaviruses with history of mood disorders and suicide attempts. *J. Affect. Disord.* 130 (1–2), 220–225.
- Tandon, R., 2020. COVID-19 and mental health: preserving humanity, maintaining sanity, and promoting health. *Asian J. Psychiatr.* 102256.
- Yan, E., Chan, K.-L., Tiwari, A., 2015. A systematic review of prevalence and risk factors for elder abuse in Asia. *Trauma Violence Abuse* 16 (2), 199–219.
- Zandifar, A., Badrfam, R., 2019. Psychiatric challenges among the elderly in Iran: looking ahead. *Asian J. Psychiatr.* 45, 123.
- Zandifar, A., Badrfam, R., 2020. Iranian mental health during the COVID-19 epidemic. *Asian J. Psychiatr.* 51, 101990.

Rahim Badrfam

Department of Psychiatry, Roozbeh Hospital, School of Medicine, Tehran University of Medical Sciences, Tehran, Iran

E-mail address: rbadrfam@gmail.com.

Atefeh Zandifar^{a,b,*}

^a *Cardiovascular Research Center, Shahid Rajaei Educational & Medical Center, Alborz University of Medical Sciences, Karaj, Iran*

^b *Social Determinants of Health Research Center, Alborz University of Medical Sciences, Karaj, Iran*

* Corresponding author at: Cardiovascular Research Center, Shahid Rajaei Educational & Medical Center, Hesarak, Karaj, Alborz, Iran.
E-mail address: zandifaratefe@gmail.com (A. Zandifar).