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Changes in suicide methods during the coronavirus disease 2019 pandemic: Comment on “Increased incidence of high-lethality suicide attempts after the declaration of the state of alarm due to the COVID-19 pandemic in Salamanca: A real-world observational study”

Dear editor,

I read the recent article (García-Ullán et al., 2022) published in Psychiatry Research with great interest. They considered the influence of the coronavirus disease 2019 (COVID-19) pandemic, the declaration of a state of alarm, and other factors on the incidence of suicidal behaviors and reported that highly lethal suicidal attempts were more frequent after lockdown. Additionally, they reported that women used less lethal methods, while men employed more lethal methods. They also highlighted the importance of investigating the long-term effects of COVID-19 on suicide, which is essential for identifying the groups at the highest risk of suicide. The content is very suggestive.

As previously reported, it has been highlighted that when considering attempted and completed suicides, most individuals who have attempted suicide tended to be female, while most individuals who have completed suicide tended to be male (Fushimi, 2022a, 2022b; Fushimi et al., 2006). I have attempted to examine how the COVID-19 pandemic affects this tendency as follows.

Looking at the changes in the number of suicides in Japan, there was a noticeable change in 2020 compared with that in the previous year. According to the National Police Agency's suicide statistics, the number of suicides in 2020 was 21,081, showing an increase of 912 (~4.5%) from the previous year. This level exceeded the previous year's level for the first time in 11 years (since 2009) after the Lehman shock (Fushimi, 2022b). In terms of gender, the number of males decreased for the 11th consecutive year, whereas the number of females increased for the first time in 2 years (Fushimi, 2022b). By gender, the number of suicides has significantly increased in women compared with that in men in 2020.

Considering the aforementioned tendency from the viewpoint of the methods of suicide, it can be hypothesized that there is not much change in the proportion of men who take lethal methods (no remarkable increase is seen), whereas the proportion of women who take lethal methods is increasing.

To confirm the aforementioned possibility, I have checked the statistical data provided by the government of Japan. Based on the data of the White Paper on Suicide Measures (Ministry of Health, Labour and Welfare, Government of Japan, 2022), the number of cases by gender and suicide method from 2016 to 2020 is presented below.

The percentages of the top three methods of suicide are as follows. Regarding men, the first-leading method is “hanging,” accounting for 67.7%, 69.3%, 67.6%, 67.7%, and 68.6% in 2016, 2017, 2018, 2019, and 2020, respectively. The second-leading method is “jumping (fall),” accounting for 9.0%, 8.8%, 9.4%, 9.2%, and 9.7% in 2016, 2017, 2018, 2019, and 2020, respectively. The third-leading method is “gas poisoning (briquettes, etc.),” accounting for 8.1%, 7.3%, 8.7%, 8.7%, and 7.8% in 2016, 2017, 2018, 2019, and 2020, respectively. In

contrast, for women, the first-leading method is “hanging,” accounting for 59.0%, 59.8%, 59.3%, 58.6%, and 64.4% in 2016, 2017, 2018, 2019, and 2020, respectively. The second-leading method is “jumping (fall),” accounting for 14.3%, 14.2%, 13.8%, 15.0%, and 13.4% in 2016, 2017, 2018, 2019, and 2020, respectively. The third-leading method is “drowning,” accounting for 5.6%, 6.3%, 6.1%, 5.7%, and 5.1% in 2016, 2017, 2018, 2019, and 2020, respectively.

Here, we examine the proportion of hanging, which is the most lethal method of suicide. As mentioned above, the number of female suicides increased remarkably from 2019 to 2020; however, as expected, the proportion of female suicide means increased from 58.6% (2019) to 64.4% (2020). In contrast, for men, although it has increased slightly from 67.7% (2019) to 68.6% (2020), the increase is not particularly noticeable in 2020 compared with the percentage in the previous years.

From the above, it can be summarized that in 2020, the number of female suicide completers increased compared with that in the previous year, and the proportion of individuals who used the “hanging” method, which is the most lethal method, increased. These results partially support the argument of García-Ullán et al. (2022).

Although the reason for more women adopting lethal suicide methods remains unknown, it is speculated that it may be related to the self-restraint in the COVID-19 pandemic and the restriction of consultation activities because of the restrictions on behavior. Although, it is possible that the COVID-19 pandemic is a factor that increases suicide (specifically, lethal methods of suicide), it differs from other factors, such as recession and increased unemployment. Further investigation and examination of the long-term effects of COVID-19 on suicide are needed to clarify the reason for this tendency.

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Declaration of Competing Interest

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