

DELAYED INCREASES OF SUICIDALITY AFTER THE COVID-19 PANDEMIC REQUIRES THE ATTENTION - THE CASE SERIES

Yao-Tung Lee^{1,2,3}, Che-Yin Lin¹, Hsin-Chien Lee^{2,4} & Yen-Kuang Lin⁵

¹Department of Psychiatry, Shuang Ho Hospital, Taipei Medical University, New Taipei city, Taiwan

²Department of Psychiatry, School of Medicine, College of Medicine, Taipei Medical University, Taipei, Taiwan

³Center of dementia, Shuang Ho Hospital, Taipei Medical University, New Taipei city, Taiwan

⁴Department of Psychiatry & Sleep Center, Taipei Medical University Hospital, Taipei, Taiwan

⁵Graduate Institute of Athletics and Coaching Science, National Taiwan Sport University, Taoyuan, Taiwan

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INTRODUCTION

The COVID-19 pandemic not only causes devastating effects on physical health but also results in mental health consequences (Sinanović et al. 2020). While global prevalence of anxiety and depression increased massively after the outbreak, a multi-country study has indicated that the suicide rate remained unchanged or even declined in the early months of the pandemic (Pirkis et al. 2021). As possibility of delayed impacts on suicide rates was proposed to explain this phenomenon (Min et al. 2021), we highlight this issue by reporting two elderly adults presented with suicide attempt in the post-peak period of the pandemic. Written informed consent for publication of the clinical details was obtained from the patients.

CASE REPORT

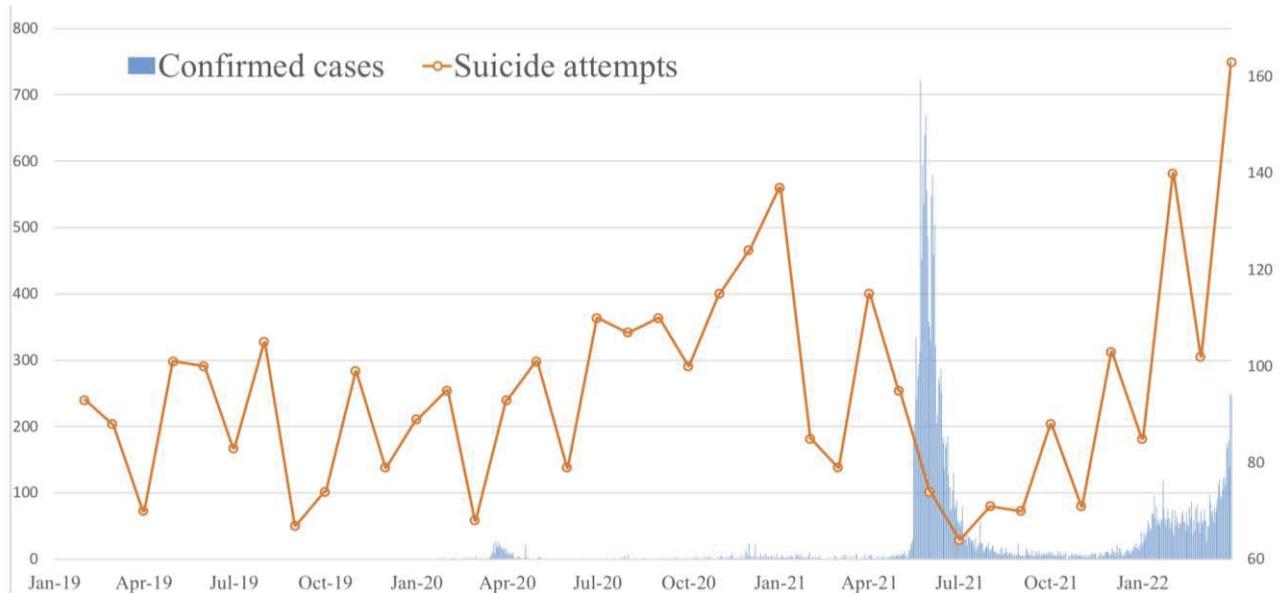
Mrs. D, a previously healthy and introverted 71-year-old widow without history of neuropsychiatric disorder presented to the emergency department (ED) following a suicide attempt by ingesting alkaline detergent. She used to have appropriate interpersonal interactions until April 2021, the time of COVID-19 outbreak in Taiwan, after which she remained in social isolation at home indefinitely. Later, she experienced anxiety, insomnia, dizziness and frequently complaining about loneliness. In August, her family observed she being fatigued and socially withdrawn. However, they didn't take the symptoms seriously since she never revealed any negative thought. These conditions persisted even after the COVID-19 infection rate had passed its peak in Taiwan. In February 2022, she was sent to ED after being seen ingesting alkaline detergent. Following the emergent treatments, she was admitted to the intensive care unit. The psychiatrist consultation after relatively stable physical condition found her severely depressed and having persistent strong suicide ideas. She was diagnosed of major depressive disorder and psychiatric collaborative care was suggested.

Mrs. C, a 70-year-old widow with no history of neuropsychiatric disorders presented to the ED following a suicide attempt by jumping from a building. Since May 2021, the outbreak of COVID-19 in Taiwan, this pre-

viously cheerful and sociable female was asked to stay at home definitely, after which she became excessively anxious and insecure and gradually developed hypotalkative, slow reaction, and social withdrawal. She had visited the physicians because of swallowing difficulty where all the physical examinations were normal, after that she was transferred to the psychiatrist for evaluation where antidepressant was prescribed but she didn't follow the prescription. With the pandemic slowing down in September, her general condition seemed improved gradually except for some residual symptoms including swallowing difficulty and correlated body weight loss, making her family ignored her status. However, recurring symptoms developed and she eventually attempted suicide by jumping off the fifth floor on a morning of October 2021. After rescue by her family, she was subsequently sent to the ED and then admitted to the psychiatric ward under the impression of major depressive disorder because of depressive symptoms and strong suicide ideation.

DISCUSSION

Literature review suggested that suicide rate did not rise in the majority of studies published to date (Efsthathiou et al. 2022). Nevertheless, there are perspectives that mental health consequences of COVID-19 crisis may be long-lasting (Sinanović 2021) and the suicidal behavior may peak later than the actual pandemic (Efsthathiou et al. 2022). The viewpoint is supported by the finding of previous studies that the peak in suicide rate was at the end of the peak of the 1918 influenza epidemic (Wasserman 1992). Besides, the neuropsychiatric manifestations including depression may significantly increase over time in post-COVID-19 syndrome (Premraj et al. 2022). Because Covid-19 outbreak has been under control with the daily confirmed local cases less than 100 since January 2022 in Taiwan, our cases may be examples of the delayed impacts of the pandemic on suicidality. Besides, our monthly monitoring data in two of the most densely populated districts of Taiwan revealed that the number of suicides fall to lowest following the peak of the pandemic and subsequently rise again with decline of the daily confirmed COVID-19 cases (Figure 1).



37. **Figure 1.** Number of COVID-19 cases and suicide attempts in Taiwan

CONCLUSION

Given that suicide is a complex issue involving interactions between bio-psycho-social and culture, the prevention strategies require multidimensional, multi-disciplinary approaches during and after pandemic. Considering the possibility of delayed increase in suicide rate, it is urgent to develop targeted prevention strategies such as promoting self-help and positive coping and disseminating accurate information, particularly among vulnerable groups.

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Contribution of individual authors:

Study conception and design: Yao-Tung Lee, Che-Yin Lin & Hsin-Chien Lee.

Acquisition of data: Yao-Tung Lee & Che-Yin Lin.

Analysis and interpretation of data: Yao-Tung Lee, Che-Yin Lin & Yen-Kuang Lin.

Draft manuscript: Yao-Tung Lee & Yen-Kuang Lin.

All authors had read and approved the final manuscript and agreed to be accountable for all aspects of the work in ensuring that questions related to the accuracy or integrity of any part of the work are appropriately investigated and resolved.

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Correspondence:

Yen-Kuang Lin, PhD

Graduate Institute of Athletics and Coaching Science, National Taiwan Sport University

No. 250, Wenhua 1st Rd., Guishan, Taoyuan 33301, Taiwan

E-mail: robbinlin@ntsu.edu.tw