

RESEARCH LETTER

Online consortium managing COVID-19-related mental health problems

The World Health Organization declared the COVID-19 pandemic in March 2020 and presented the need for action on mental health in May 2020.¹ The fear and anxiety of invisible threats have a notable impact on citizens and healthcare workers and may cause mental health problems, such as anxiety and depression.^{2,3} Discrimination and stigmatization can occur even among healthcare workers, forcing solitude onto frontline COVID-19 healthcare providers.³ In such a mental health crisis, close collaboration among psychiatrists, other healthcare workers, local authorities, and community health workers is essential to support vulnerable populations.² However, face-to-face meetings with direct communication were difficult to hold during the infection-spreading stage.

Ibaraki Prefecture has a population of 2.82 million. The first case of COVID-19 was reported in March 2020, and 642,582 cases have been confirmed with 1,300 deaths reported until May 2023.⁴ To achieve collaboration and provide COVID-19-related mental healthcare services, we organized the Ibaraki COVID-19 Mental Health Consortium (ICMC). The ICMC dealt with mental health problems related to COVID-19, occurring at various facilities in Ibaraki Prefecture (Figure 1a). When someone contacted the ICMC, headquarters discussed their problem using e-mail or video conferences and chronology via online. Headquarters coordinated appropriate interventions for individuals in need. The ICMC coordinated cooperation between psychiatric and general hospitals, using a mental and physical triage system before admission, and ensured psychiatric consultations and examinations. For citizens, brief counseling with psychological first aid was provided so that they could access the consultation service of the mental health and welfare center. The ICMC also employed an online questionnaire based on the Japanese version of Patient Health Questionnaire (PHQ-9) to determine whether people in quarantine facilities experienced depressive symptoms.

We examined all the activity data of the ICMC to determine its impact on mental health issues caused by the COVID-19 pandemic. In total, 341 COVID-19 cases were reviewed between April 2020 and November 2023 and 69 (20%) patients had a history of psychiatric disease. Among the 333 cases quarantined

(facility, home, nursing home, and medical facility, including psychiatric facility), 25 quarantined in the facility underwent telemedicine consultations. They complained of insomnia, anxiety, agitation, depression, and suicidal ideation because of their socioeconomic distress. Ten patients required psychotropic medication and 37 patients required hospitalization adjustments. ICMC members of the general hospital liaison psychiatry team consulted with 12 inpatients with COVID-19 and seven hospitals provided mental health support consultations to medical staff engaging with COVID-19 patients.

Figure 1b shows the longitudinal number of telemedicine and hospitalization adjustments that the ICMC did for each wave. The total number of interventions increased until the third wave, when the COVID-19 vaccination was first accepted in Japan. However, when the SARS Cov-2 delta variant pandemic occurred in the fifth wave, the number of telemedicine services increased, especially among patients with psychiatric history. When the SARS Cov-2 omicron variant pandemic occurred in the sixth wave, the number of telemedicine services dropped. This may be because the total number of infected people increased, whereas the risks of hospitalization and severity declined.

ICMC activities integrated with voluntary mental health related to COVID-19 in the Ibaraki Prefecture. To the best of our knowledge, such integration across all psychiatric institutions in one prefecture has not been reported elsewhere. With an online command and control system, ICMC members from various sources can rapidly discuss and intervene, even at a distance. The importance of routinely screening symptoms of mental disorders among COVID-19 patients⁵ was suggested. Our screening system using the PHQ-9, sharing information with facility nurses, and telemedicine, as necessary, may contribute to these needs. The ICMC activities have a few limitations. Telehealth without visual transmission may limit the detection of problems during physical examination.⁶ We used an online questionnaire, which may have been difficult for elderly people to access. Concurrently, we pay special attention to the mental health problems of healthcare providers, especially frontline COVID-19 workers, since they may present with post-traumatic stress symptoms.^{7,8} The ICMC may be a “new-normal” mental health support system in the emerging infectious disease pandemic era.

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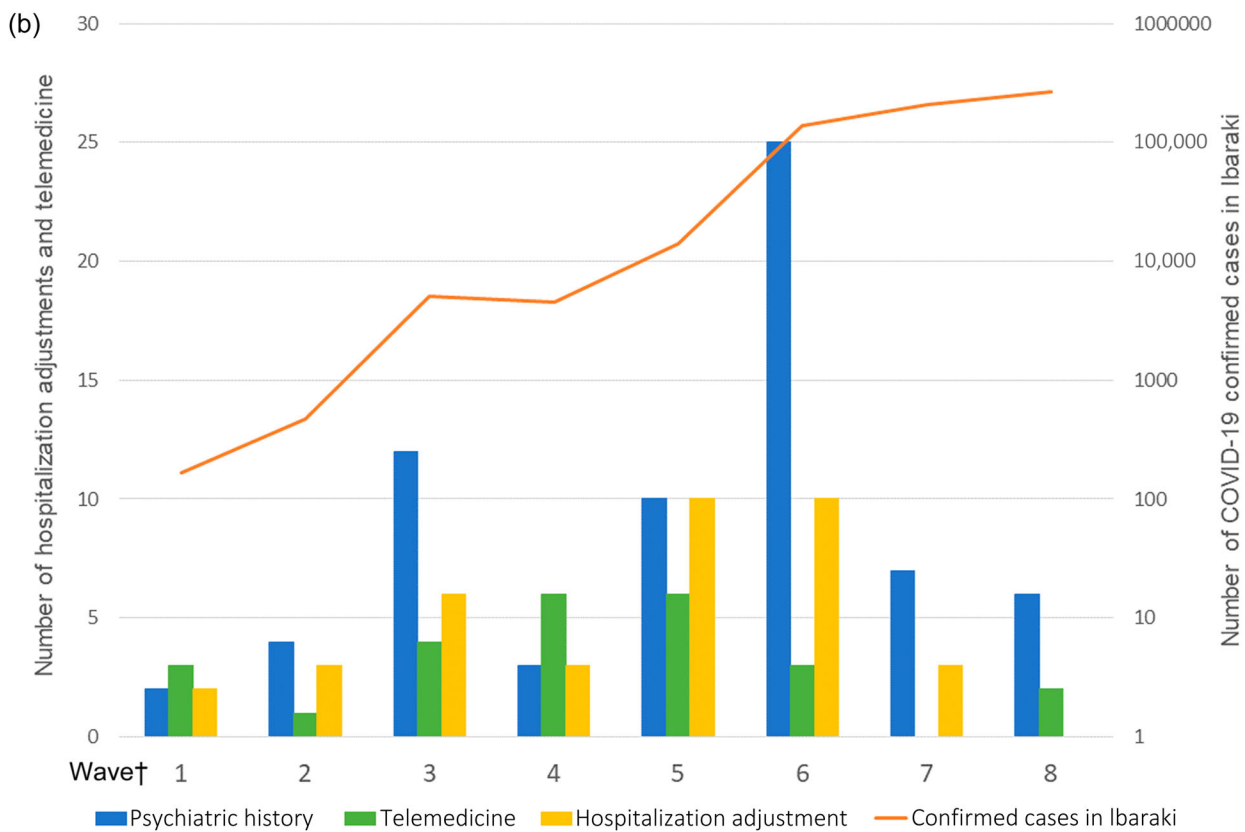
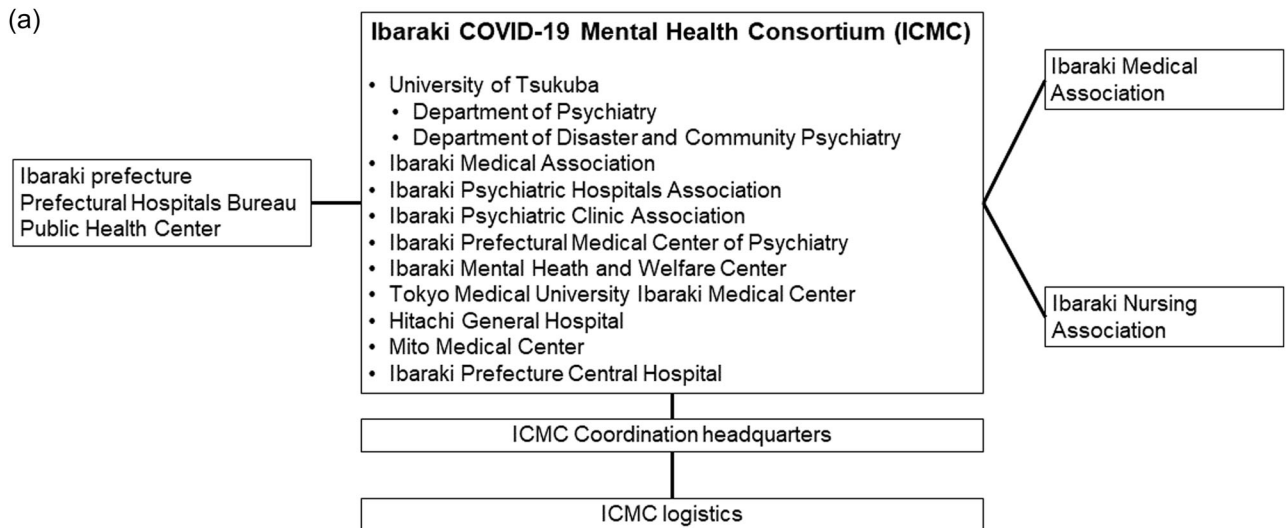


FIGURE 1 (a) Ibaraki COVID-19 Mental Health Consortium (ICMC) and cooperating facilities. (b) Number and types of interventions that the ICMC did in each wave.

†There are no clear definitions for waves in Japan, so we used the “Start of each wave is defined as the week in which there is an increase in the number of people infected with COVID-19 for 3 consecutive weeks.” This was defined on April 19, 2023 by the COVID-19 Advisory Board of the Ministry of Health, Labour and Welfare.

AUTHOR CONTRIBUTION

Conception: Hirokazu Tachikawa, Sho Takahashi, Megumi Sasaki, Takafumi Hori, Shinji Sato, and Tetsuaki Arai. *Data curation:* Saori Ecoyama. *Drafting figures:* Kiyotaka Nemoto. *Writing—review and editing:* Hirokazu Tachikawa and Kiyotaka Nemoto. All authors have read and agreed to the published version of the manuscript.

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CONFLICT OF INTEREST STATEMENT

Kiyotaka Nemoto is an Editorial Board member of *Psychiatry and Clinical Neurosciences Reports* and co-author of this article. To

minimize the bias, he was excluded from all editorial decision-making. There is no conflict of interest to disclose for other authors.

DATA AVAILABILITY STATEMENT

N/A

ETHICS APPROVAL STATEMENT

This study was approved by the Ethics Committee of University of Tsukuba Hospital (R04-012), which conforms to the provisions of the Declaration of Helsinki.


PATIENT CONSENT STATEMENT

Informed consent was obtained.

CLINICAL TRIAL REGISTRATION

N/A

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REFERENCES

- Nagai Y, Miyakawa N, Takawa H, Hori Y, Oyama K, Ji B, et al. Deschloroclozapine, a potent and selective chemogenetic actuator enables rapid neuronal and behavioral modulations in mice and monkeys. *Nat Neurosci*. 2020;23:1157–67.
- Rajkumar RP. COVID-19 and mental health: a review of the existing literature. *Asian J Psychiatr*. 2020;52:102066.
- Shigemura J, Ursano RJ, Morganstein JC, Kurosawa M, Benedek DM. Public responses to the novel 2019 coronavirus (2019-nCoV) in Japan: mental health consequences and target populations. *Psychiatry Clin Neurosci*. 2020;74:281–2.
- Number of Confirmed Cases (cumulative). Visualizing the Data: Information on COVID-19 Infections. May 7, 2023. National Epidemiological Surveillance of Infectious Diseases Program; 2023 [cited 2024 May 20]. Available from: <https://covid19.mhlw.go.jp/>
- Manchia M, Gathier AW, Yapici-Eser H, Schmidt MV, de Quervain D, van Amelsvoort T, et al. The impact of the prolonged COVID-19 pandemic on stress resilience and mental health: a critical review across waves. *Eur Neuropsychopharmacol*. 2022;55:22–83.
- Cowan KE, McKean AJ, Gentry MT, Hilty DM. Barriers to use of telepsychiatry: clinicians as gatekeepers. *Mayo Clin Proc*. 2019;94:2510–23.
- Brooks SK, Webster RK, Smith LE, Woodland L, Wessely S, Greenberg N, et al. The psychological impact of quarantine and how to reduce it: rapid review of the evidence. *Lancet*. 2020;395:912–20.
- Park J-S, Lee E-H, Park N-R, Choi YH. Mental health of nurses working at a government-designated hospital during a MERS-CoV outbreak: a cross-sectional study. *Arch Psychiatr Nurs*. 2018;32:2–6.