

SPECIAL REPORT

An Urgent Webinar for Therapists Working in Local Facilities by Psychiatrists and Therapists in a Regional Core Hospital during the COVID-19 Pandemic

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Background: After the emergence of novel coronavirus disease (COVID-19), cluster infections occurred at several rehabilitation facilities in Japan. Because rehabilitation is necessary for deconditioned COVID-19 patients, preventing cluster infections and providing rehabilitation while protecting therapists were also essential in the Wakayama region. **Webinar details:** The rehabilitation medicine department and division of Wakayama Medical University Hospital, which consists of psychiatrists and registered therapists, proposed that the Wakayama Physical Therapy Association hold an urgent webinar for therapists in the Wakayama region. The webinar (120 min in duration) comprised an overview of severe acute respiratory syndrome coronavirus 2, the significance of rehabilitation therapy for COVID-19 patients, instruction in personal protective equipment, and case reports on COVID-19 patients from an affiliated university hospital. The webinar was held on May 16, 2020, after only 9 days of preparation. Ninety-six members of 29 facilities in the Wakayama region participated, including therapists who lived far from the university. Moreover, the webinar was implemented at a lower cost than a conventional meeting. An opportunity was provided to share information among participants, speakers, instructors, and a supervisor after the presentations. The overall level of satisfaction of participants after the webinar was high. **Conclusion:** This webinar for therapists in local facilities was held by psychiatrists and therapists at Wakayama Medical University, a regional core hospital, in collaboration with the regional therapy association. The preparation time was only 9 days and the cost was lower than that for a conventional meeting, thereby allowing participants to share information about infection control for COVID-19 in an efficient and cost-effective manner.

Key Words: infection control; psychiatrist and registered therapist operating rehabilitation (PROr); severe acute respiratory syndrome coronavirus 2; web seminar

INTRODUCTION

Following the emergence of pneumonia of unknown origin in early December 2019 in Wuhan, China,¹⁾ novel coronavirus disease (COVID-19) caused by severe acute respiratory

syndrome coronavirus 2 (SARS-CoV-2) has spread rapidly around the world. More than 4.3 million people had been infected as of May 15th, 2020,²⁾ resulting in the collapse of healthcare systems in some countries. Many patients experience a variety of problems resulting from the infec-

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tion, including a marked reduction in physical fitness and cardiopulmonary function during and/or after infection. In March 2020, the Italian Thoracic Society, the Association for the Rehabilitation of Respiratory Failure, and the Italian Respiratory Society developed guidelines for COVID-19 treatment, stating that treatments of COVID-19 should include respiratory rehabilitation therapy by physiatrists and skilled therapists based on the condition of the patient.³⁾ In April, the Pan American Health Organization and World Health Organization jointly announced the necessity of rehabilitation interventions in the treatment of COVID-19.⁴⁾ Rehabilitation therapy is therefore necessary to overcome these problems from the early phase of infection.^{3,4)}

In Japan, the first case of SARS-CoV-2 infection was reported on January 16th, 2020, and a total of 16,193 individuals had been infected as of May 15th, 2020.⁵⁾ In the Wakayama region, the first infected individual was confirmed on February 13th, and 63 cases of infection were confirmed up to May 15th, 2020.⁶⁾ On April 7th, a declaration of emergency was issued by the government to seven major regions, such as Tokyo and Osaka, and this was later extended to the whole country.⁷⁾ Wakayama Medical University Hospital is designated as the infection control hospital for the Wakayama region. We frequently conducted study meetings on infection control to share information on the above guidelines and to share up-to-date information from other Japanese hospitals accepting COVID-19 patients among physiatrists and therapists in the university hospital. The information covered the routes and mechanisms of SARS-CoV-2 infection,⁸⁾ its incubation period, the main symptoms,⁹⁻¹¹⁾ the fact that about 20% of cases develop pneumonia, and the fact that mortality rates are higher among the elderly and individuals with cardiovascular disease, diabetes mellitus, and chronic respiratory disease.¹²⁾ At the university hospital, infection control was implemented among all staff members (physiatrists, therapists, and nurses). Furthermore, the patient schedule for the rehabilitation room was adjusted to avoid congestion, while instead promoting rehabilitation for immunocompromised patients at the bedside.

Information about infection control for COVID-19 was limited for physical therapists in local hospitals. If appropriate countermeasures were not performed, therapists could face the risk of infection and could spread the disease among patients in their facilities. Urgent preventive measures at all facilities are therefore essential in the Wakayama region. Consequently, the rehabilitation medicine department and division, which consists of physiatrists and registered physical therapists in the university hospital, proposed that the

Wakayama Physical Therapy Association hold a free and urgent webinar for all therapists in the Wakayama region. The web meeting was held on May 16th, 2020. Several studies have reported the safety and utility of web meetings for medical-related staff,^{13,14)} but there are no reports describing a webinar organized and held by a regional core hospital in collaboration with regional therapist associations.

We report herein a recent webinar aimed at providing information about infection control among therapists in the Wakayama region that was organized and held by the university hospital and the regional therapy association.

DETAILS OF THE WEBINAR

Preparation for the Web Meeting

The meeting was proposed to the Wakayama Physical Therapist Association on May 7th, and the contents of the meeting were determined on the same day. Notification of the meeting was provided on May 8th and sent to The Association. Every rehabilitation facility in the Wakayama region was then informed about the meeting. All instructors checked the devices to be used in the meeting and confirmed the condition of the network on May 12th and 13th, respectively. The organizers checked the attendance status of persons wishing to participate via “Google Forms,” and the attendance list was closed on May 15th. The meeting was held on May 16th (Fig. 1). The number of attendees was 96 of 1371 association members from 29 facilities in the Wakayama region and 28 of the 96 participants were the chief therapists of their facility (Fig. 2).

Contents of the Meeting

The contents of the meeting were: (1) an overview of SARS-CoV-2 (30 min); (2) the significance of rehabilitation therapy for COVID-19 patients (30 min); (3) a demonstration of personal protective equipment during rehabilitation therapy (30 min); and (4) case reports from one hospital that had received infected patients (30 min). These contents were shared among members of our department and division before the meeting.

Web Meeting

The Zoom web meeting tool (Zoom Video Communications, San Jose, CA, USA) was used for the webinar. All instructors gave their part of the presentation from their home, whereas the supervisor, moderator, and demonstrators created a temporary studio in the rehabilitation room while keeping a suitable distance between themselves, wearing

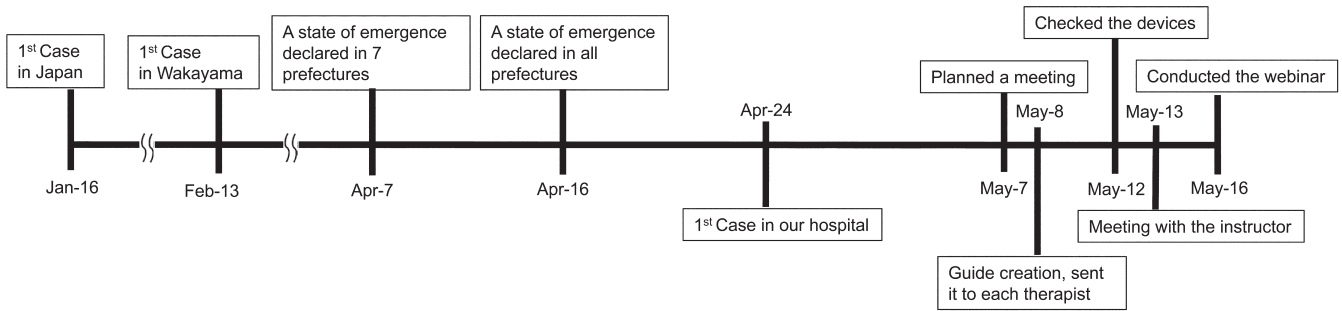


Fig. 1. Timeline for the webinar.

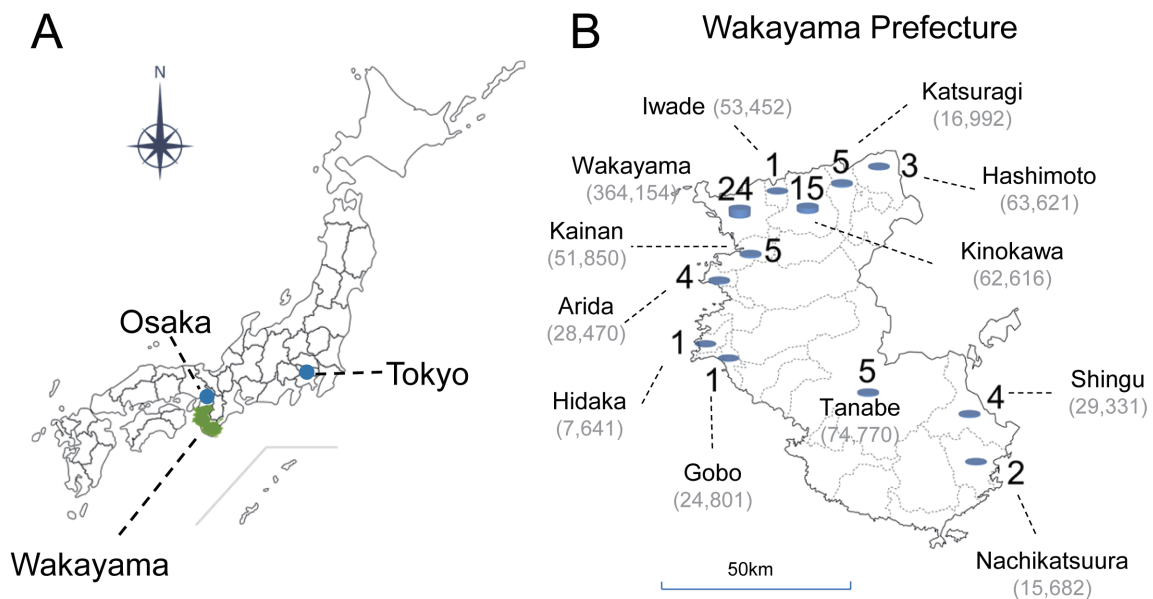


Fig. 2. (A) The location of Wakayama prefecture and (B) the numbers of webinar participants from each city or town (numbers in bold type). Wakayama City is the capital of the prefecture and a total of 12 cities and/or towns are shown along with their populations (gray numbers; 2015 Population Census by Statistics Bureau of Japan [<https://www.stat.go.jp/data/chiri/map/index.html>]).

masks, and having disinfected their hands and the devices (**Fig. 3A**). The real-time demonstration, showing how to fit and remove personal protective equipment, was conducted in the studio by two therapists (**Fig. 3B**). The meeting started at 18:00 to avoid the working hours of the therapists.

Feedback

The organizers asked all participants to complete an anonymous questionnaire after the meeting using Google Forms. The questions were: (1) “Was participation meaningful?” (2) “Was the network environment good?” (3) “What device did you use?” (4) “Where did you attend from?” (5) “Were the

slides in the web meeting easy to read?” (6) “Were the voices easy to hear?” and (7) “Would you like to attend future web meetings?” Items 1, 2, 5, and 6 were rated using a five-point Likert scale (1, very bad; 2, bad; 3, neither; 4, good; 5, very good). For Item 7, the organizer asked participants to choose whether they would definitely like to participate, would like to participate, or would not participate again in the future. The results of the anonymous questionnaire are described as median (interquartile range) scores. The questionnaire response rate was 45.8% (44/96 participants). The median response for whether the web meeting was meaningful was 5 (4–5), and whether the network environment was good was

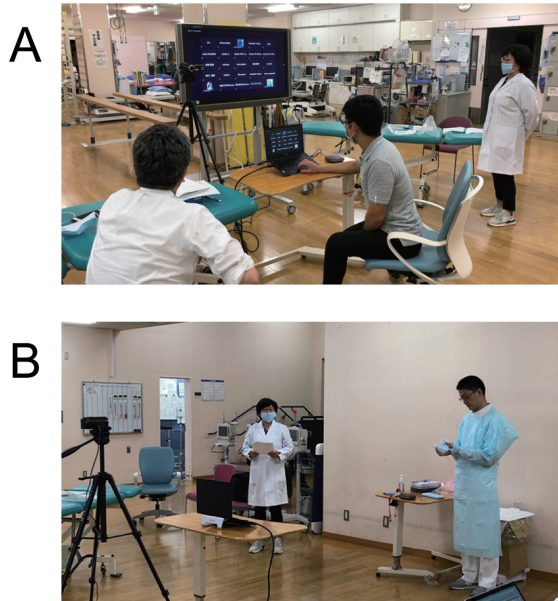


Fig. 3. (A) A scene from the web meeting using Zoom and (B) the demonstration of personal protective equipment used during rehabilitation treatment.

5 (4–5); all participants evaluated these items as “good” or “very good”. The devices used by participants were personal computers (36/44; 81.8%), tablets (4/44; 9.1%), and smartphones (4/44; 9.1%). Forty of the 44 respondents connected from home (90.9%), and 2 from the workplace (4.5%); 2 respondents did not provide responses to this question (4.5%). The median quality of the audio, images, and slides was perceived as 5 (4–5) for all items. Twenty-six participants (59.1%) responded that they would definitely like to participate in future meetings, 18 (40.9%) that they would like to participate, and no participants (0%) replied that they did not want to participate in future web meetings.

DISCUSSION

We report here on an urgent web meeting targeting rehabilitation therapists at the prefectural level that was rapidly organized by psychiatrists and therapists in a regional core hospital, in collaboration with a regional-level association, during the emergence of COVID-19. Switching from conventional face-to-face meetings to web meetings has become increasingly popular to allow discussions to be held with participants from around the world, such as from the United States¹⁵⁾ and Japan, and the Wakayama Medical University Hospital is no exception. The present web meeting was realized after psychiatrists and therapists in Wakayama Medical

University Hospital proposed the concept to the Wakayama Physical Therapy Association. Before the COVID-19 outbreak, we had no experience with meetings and seminars in which psychiatrists and therapists collaborated, such as that described here.

Rehabilitation therapy can ameliorate the severe medical problems of COVID-19, such as the deterioration of physical and cognitive functions and dysphagia, and may also reduce anxiety during infection.⁴⁾ Rehabilitation therapy also optimizes patient recovery, facilitates early discharge, and reduces the risk of readmission or intensive care admission.⁴⁾ Therapists and physicians in the department of rehabilitation medicine are potential sources of infection and/or transmission among patients if appropriate countermeasures (e.g., avoiding person-to-person airborne infection) are not taken.⁸⁾ Indeed, several cluster infections within hospitals have been reported in Osaka, a neighboring region. Urgent countermeasures in all facilities were therefore necessary in the Wakayama region also.

One of the features of a webinar is its ability to be quickly realized. To hold a conventional meeting for therapists at the prefectural level, an organizer must book a venue after first estimating the likely number of participants and then ask instructors or speakers to give presentations, confirm their schedules, and usually advertise the meeting to therapists. The preparation and recruitment of participants would usually take at least several weeks or even months. For the present web meeting, however, no venue needed to be prepared and the contents of the meeting had already shared within the department. We were therefore able to prepare for the web meeting in just 9 days.

Because meetings or seminars with more than three participants were not allowed during the COVID-19 pandemic in Wakayama Medical University Hospital, web meetings were held on a regular basis within our department. All organizers and speakers were familiar with the preparation and operation of the digital equipment used. No participants had any issues with the audio or visual quality of the presentations. The web meeting enabled therapists to participate from distant locations. Furthermore, the present web meeting could be implemented at a lower cost than conventional meetings. Evidently, using web meeting tools offers major advantages for both the organizers and the audience, particularly under emergency conditions. As shown by the results of the questionnaire, participants showed high levels of satisfaction after the web meeting. Notably, all respondents replied that they would like to participate in this kind of meeting again in the future.

In order to recruit more participants, on-demand delivery should be considered. There are several problems related to on-demand delivery, for example, technical issues and costs to install new equipments. Based on the experience of holding this webinar, the present web meeting format represents a good model.

CONCLUSIONS

The present web meeting was organized by the department and division of rehabilitation medicine in a medical university hospital and was advertised locally through a therapists' association. The present report shows that meetings such as that described here can be held with minimal preparation time and cost. Participants can share information and promote levels of comprehension in emergency situations, such as during the COVID-19 pandemic. Similar urgent web meetings may offer a new forum for the cooperation of medical professionals at the prefectural level.

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CONFLICTS OF INTEREST

Financial disclosure statements have been obtained, and no conflicts of interest have been reported by the authors or by any individuals in control of the content of this article and our previous presentation.

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