

Community Group Exercise Program for Elderly Can Temporarily Shift Online during COVID-19 Pandemic

M. Kaneko^{1,2}, Y. Yamamoto¹, N. Ishimaru², M. Shimizu¹

1. Shimizu Medical Clinic, Akashi City, Hyogo, Japan; 2. Department of General Internal Medicine, Akashi Medical Center, Akashi City, Hyogo, Japan

Corresponding Author: Masahiro Kaneko, MD, Department of General Internal Medicine, Akashi Medical Center, 743-33, Yagi, Ohkubo-cho, Akashi City, Hyogo, 674-0063 Japan, Tel: +8178-936-1101, Fax: +8178-936-7456, E-mail: qhnqj628@gmail.com

Key words: Community medicine, geriatrics, exercise, telemedicine, frail elderly, COVID-19.

Dear Editor,

Group-based physical exercise is both a physical and social activity, and for elderly people it has been recommended to prevent functional decline compared with individual physical exercise (1). We began a weekly group exercise program for elderly community members in 2015 as an anti-frailty measure. It is weekly private clinic-supported (participation fee 100 JPY, approx. 1 USD/hour) group exercise program for elderly community members in Akashi City, Hyogo, Japan. About 30 participants in their 70s and 80s exercise together regularly (70s: 80%, 80s: 20%). Our program is one of many similar local group exercise programs in Japan. During the COVID-19 pandemic, many have had to stop their activities, especially in high-risk areas; 47% of community initiatives in Tokyo completely stopped meeting in April 2020 (2). As COVID-19 spread, we faced a high likelihood of also having to stop our exercise program.

There is growing evidence of the effectiveness of online exercise for elderly people (3). We planned to transition the social and physical aspect of our exercise program from offline (in person) to online using free online conference software.

Before beginning the online program, we surveyed the participant's experience of video conference software; 29 of 30 participants responded, but only 2 of 29 (7%) participants had experience of using video conference software. Nineteen (65%) had access to a smart device or computer with internet access, and 16 (55%) expressed desire to participate in an online group exercise program. We judged that it was feasible to transition the program online without additional cost, so we began adapting our exercise program. We used ZOOM (Zoom Video Communications Inc., San Jose, CA) because it is free, easy to use, and pre-installed on many smart devices. Initially, between November and December 2020, we provided simultaneous hybrid online and offline sessions, briefly explaining and testing the use of ZOOM. Participants were eventually able to join the program in only two steps (Supplemental figure). Five individuals registered as willing online participants.

On 6th January 2021, we stopped the offline program following government recommendations to restrict in-person social activity as a measure against the pandemic. From 13th January, we resumed the exercise program, now a totally online 30-minute session. For five minutes, our staff (instructor) explained the day's program, followed by 20 min participation in the video exercise program. Participants could also see the instructor and other participants exercising. This program was continued 12 times between January and March, and between three and five individuals participated every week. As the online version of the program had no particular problems and showed some benefits, we plan to continue providing offline and online program simultaneously after the offline program is able to restart.

Internet subscription in Japan is 74% for people in their 70s and 56% for people in their 80s (4). Simplifying the process and offering support enables them to ultimately join online activity by themselves. Fortunately, family support for elderly may be improved during the COVID-19 lockdown, and this restricted status can be a chance to remove the technical barrier of older people(5). Risk of COVID-19 is especially high in the elderly, who may miss out on social and physical activity because they must stay at home. Temporary shift to online social and physical activity could therefore be valuable for elderly members of the local community during the COVID-19 pandemic era.

Funding: Our exercise program was supported by Shimizu Medical Clinic and a grant from The KIRIN welfare foundation "Chiiki no chikara ouen jigyou (local community empowerment project)". Detailed information about this project is available on the website (<https://www.kirinholdings.co.jp/foundation/subsidy/>, in Japanese). The sponsors had no role in the design and conduct of the study.

Conflict disclosure: The authors declare none.

Acknowledgment: We thank Benjamin Phillis from Akashi Medical Center for proofreading and editing the manuscript.

References

1. Kanamori S, Kai Y, Kondo K, Hirai H, Ichida Y, Suzuki K, et al. Participation in sports organizations and the prevention of functional disability in older Japanese: the AGES Cohort Study. *PLoS One*. 2012;7(11):e51061.
2. Bureau of Social Welfare and Public Health, Tokyo Metropolitan Government. «Activity survey of community action group in Tokyo in the COVID-19 pandemic era» (in Japanese) 2020 [updated 2020/5/15. Available from: <https://hometown.metro.tokyo.jp/report202004-05/>. Accessed 27th Augst
3. McGarrigle L, Todd C. Promotion of Physical Activity in Older People Using mHealth and eHealth Technologies: Rapid Review of Reviews. *J Med Internet Res*. 2020;22(12):e22201.

4. Japanese Ministry of Internal Affairs and Communications. WHITE PAPER Information and Communications in Japan. Year 2020. [Available from: <https://www.soumu.go.jp/johotsusintokei/whitepaper/ja/r02/html/nd252120.html>. Accessed 27th Augst
5. Machon M, Mateo-Abad M, Vrotsou K, Vergara I. Health Status and Lifestyle Habits of Vulnerable, Community-Dwelling Older People during the Covid-19 Lockdown. *J Frailty Aging*. 2021;10(3):286-9.

How to cite this article: M. Kaneko, Y. Yamamoto, N. Ishimaru, et al. Community Group Exercise Program for Elderly Can Temporarily Shift Online during COVID-19 Pandemic *J Frailty Aging* 2022;11(1)123-124; <http://dx.doi.org/10.14283/jfa.2022.1>