



Telerehabilitation still has technical challenges

Providing rehabilitation to patients living far from hospitals is challenging. Computers, tablets, and faster telecommunications enable telerehabilitation, but how does it work in practice? GASEL-project studies on these by using participatory testing.

Telerehabilitation based on a tablet computers, videoconferencing and games was tested in the cognitive rehabilitation of patients with recent cardiovascular event. Cognitive rehabilitation targets attention, memory, problem solving, communication, and visuospatial and executive skills. In previous research, cognitive rehabilitation is a rare case of telerehabilitation.

The full series of 20 video meetings could be completed with only one of the three participants. Major difficulties were encountered with telecommunications; the 4G connection did not work reliably, and the 3G connection was not sufficient for videoconferencing. Additional problems were related to the technical functionality of the tablet, usability of the software, and updates interrupting sessions. Apart from the technical difficulties, feedback from the patients and the therapist was positive. Usefulness of the games divided patient opinions.

Based on these findings, cognitive telerehabilitation is well accepted among users, but the technical challenges still need addressing.

News based on student project and conference abstract:

Project work, University of Oulu, Medical technology: Heta Helakari: User Experience and usability of home-based cognitive rehabilitation.

Keränen N, Helakari H, Lahti J, Similä H, Immonen M, Kangas M, Enwald H, Kallinen M, Korpelainen R, Jämsä T (2016) Feasibility of home-based cognitive telerehabilitation- a pilot study.

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