



## "The Heart Game": Using Gamification as Part of a Telerehabilitation Program for Heart Patients.

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Abstract:

The aim of this article is to describe the development and testing of a prototype application ("The Heart Game") using gamification principles to assist heart patients in their telerehabilitation process in the Teledialog project.

A prototype game was developed via user-driven innovation and tested on 10 patients 48-89 years of age and their relatives for a period of 2 weeks. The application consisted of a series of daily challenges given to the patients and relatives and was based on several gamification principles. A triangulation of data collection techniques (interviews, participant observations, focus group interviews, and workshop) was used. Interviews with three healthcare professionals and 10 patients were carried out over a period of 2 weeks in order to evaluate the use of the prototype.

The heart patients reported the application to be a useful tool as a part of their telerehabilitation process in everyday life. Gamification and gameful design principles such as leaderboards, relationships, and achievements engaged the patients and relatives. The inclusion of a close relative in the game motivated the patients to perform rehabilitation activities.

"The Heart Game" concept presents a new way to motivate heart patients by using technology as a social and active approach to telerehabilitation. The findings show the potential of using gamification for heart patients as part of a telerehabilitation program. The evaluation indicated that the inclusion of the patient's spouse in the rehabilitation activities could be an effective strategy. A major challenge in using gamification for heart patients is avoiding a sense of defeat while still adjusting the level of difficulty to the individual patient.

Notes:

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