
Abstract

The Heart Game: A New Tool for Digital Patient Education for Patients With Heart Failure

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Abstract

Background: The COVID-19 pandemic has shown the need for new ways to perform remote patient education. Patients with heart failure are associated with a high readmission rate. Rehabilitation can prevent hospital readmissions, but there is poor participation in rehabilitation of patients with heart failure. Based on user-driven innovation in the Future Patient research project, we have developed the prototype of the digital Heart Game. The Heart Game is a new approach to digital patient education, where patients can access a digital board game via an app; through the board game, they can be presented with quizzes, activities, and reflection questions, all related to heart failure.

Objective: The objective of our study was to assess the usability of the Heart Game prototype app.

Methods: A total of 6 patients with heart failure were recruited. Think-aloud test, where participants were observed during play and sound and iPad screens were recorded, was conducted, followed by a questionnaire immediately after playing. Finally, an interview (n=6) was carried out. Qualitative data were analyzed in NVivo software (version 12.0).

Results: In total, 6 patients with heart failure (83% male; mean age 66 years) participated in the think-aloud tests. One participant did not complete the game. The game duration was from 9 minutes and 14 seconds to 16 minutes and 13 seconds. Findings from the think-aloud tests were shown in themes: digital games are a new world; practice makes perfect; the Heart Game is illogical; tasks are not generalizable, in understandable formulations, or entertaining; and the Heart Game is relevant, fun, and entertaining to play.

Conclusions: The usability of the Heart Game shows opportunities for digital patient education. However, there are some challenges in the prototype with illogical game structures in the board game. Further test and development of the prototype needs to be performed.

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KEYWORDS

telehealth; digital patient education; heart failure; game prototype

Conflicts of Interest

None declared.

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