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Behavioural and Implementation
Science Interventions
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#207 - Exploring the general acceptability and usability of CURATE.DTx for implementation in a senior population

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Objectives/aims

Digital therapies can be harnessed to drive remote care in Singapore, especially for seniors in a rapidly ageing population. We recently developed and assessed the usability of a remote digital therapeutic (DTx) for cognitive training (CURATE.DTx) in



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university students. The six month trial saw high retention rates. Based on student feedback, we noted the importance of game design and usability for effective engagement for implementation considerations. Hence, as a follow-up to this study, we aimed to explore the general acceptability and usability of the CURATE.DTx intervention for adoption and eventual implementation in a senior population.

Methods

In the follow-up study, 15 senior participants (mean age = 66.1 ± 3.58 years) were recruited for a single 90-minute in-person session, which included a 12-minute video recorded playtest session of the CURATE.DTx platform, followed by a 60-minute audio-recorded semi-structured interview to understand their overall experience, motivation, and feedback. Interviews were audio-recorded, transcribed verbatim and analysed thematically.

Main findings

Beyond gameplay factors, preliminary analysis revealed three main themes to improve adoption of the CURATE.DTx platform in the senior demographic – daily life analogies, cognitive training, and medical recommendation.

Several seniors struggled with understanding the flight simulator based game design of the CURATE.DTx. When asked on how they would change it, it was suggested that the implementation of a game design that is more analogous to the seniors' daily life experiences helped to improve their understanding of the game, as well as associate better to it. For example, basing the game interface on a car dashboard design would be more relatable than the current CURATE.DTx design which is based on aircraft piloting. While several participants were willing to play the CURATE.DTx as a game, many mentioned that they would be more enticed to do so if they thought of it as a cognitive training tool. This was because they considered it as a learning opportunity and a means to train and challenge themselves. Hence, framing the CURATE.DTx platform as a cognitive training tool instead of just as a game would be a way to generate greater interest in it. When asked if they would use the CURATE.DTx platform if prescribed by a doctor, almost all seniors answered in the affirmative, saying that they would be more open to using the platform if it was recommended by a health professional. Thus, working with medical professionals to endorse the DTx would be an effective strategy to increase its usage, due to the seniors' trust in their medical personnel's judgment. Similarly,

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seniors were more willing to adopt the DTx if it was proven that using it would be beneficial to them.

In conclusion, these are several factors that can affect the acceptability and adoption of the DTx in a senior population, and should be considered by future designers and healthcare providers to ensure effective implementation.