

Co-design and user validation of the MedFit App: A focus group analysis

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Background: This research details the development phase of the formative research process as part of the mHealth Development Evaluation Framework, used to develop a theoretically informed Android App, named MedFit. The overall aim of the app is to increase physical activity minutes of adults with cardiovascular disease (CVD). This research comes under the theme 'Health and Wellbeing', creating an alternative mode of cardiac rehabilitation. The focus of this abstract is the co-design and user validation of the MedFit app through focus group testing.

Methods: Participants in the focus groups were recruited from the HeartSmart programme in MedEx. MedEx is an exercise rehabilitation programme for people with chronic illness run in Dublin City University (DCU). In total 26 people took part in the groups (65% male; mean age 64 ± 8.2 years). There were five focus groups lasting approximately 1.5-2 hours in duration, with a max. of six people per group. The script was developed and informed using a questionnaire based on the Unified Theory of Acceptance and Use of Technology 2 (UTAUT2). The questionnaire data identified constructs that were primary concerns for end-users. The focus group had two main strands; usability and acceptability of the app. The data was analysed using content analysis.

Results: During the usability focus group testing participants provided feedback on the prototype app. Examples of the feedback included; retrieve password function, play exercise video continuously under the timer and remove the leaderboard function. Following in-depth content analysis of the acceptability section, four main themes were identified; support, the app as a mentor/guide, translation of activity from gym to home and technology knowledge gap.

Conclusion: User validation through the focus groups is a crucial part of the user-led formative research and design process. The feedback was then translated into technical improvements through close collaboration with the technical team.