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**POSTER ABSTRACT****Optimising the multimedia design of a user-facing mHealth app for older individuals**

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***Introduction***

The SHAPES (Smart and Healthy Ageing through People Engaging in Supportive Systems) Innovation Action aims to create an open technological platform allowing the deployment of secure and reliable digital solutions for supporting older people to live longer and healthier lives. The Medicines Optimisation Innovation Centre (MOIC) in Northern Ireland is preparing to pilot a set of digital solutions aimed at optimising medicines' use and control for older people with multimorbidity. The user-facing components of those solutions, one of which a mHealth app, are being developed using a co-design process.

***Aims Objectives Theory or Methods***

This study envisioned to collect feedback on the design and layout provided by an mHealth app to optimise its usability and acceptability by older people. Participants were recruited via local community support providers and known contacts of the investigators. Mock-ups (i.e., simplified visual representations) of the app were presented to specific user groups and feedback on the app's visual appearance was sought via interview. Feedback was analysed using the ISO Standards for multimedia design (ISO 14915) which refer to the suitability of the design with respect to its communication objective, perception and understanding, exploration and user motivation.

***Highlights or Results or Key Findings***

Mock-up presentations with recruited participants were conducted remotely via video conferencing software between 22nd March and 13th April 2021. Seven participants consented to take part in the study: two participants were aged  $\geq 65$  years and were multimorbid; two participants were healthcare providers; and three participants provided social support to older people.

Findings revealed that improvements to the design and layout of the app could be performed to better meet the four design objectives listed in ISO 14915. Participants commented that communication would be facilitated if the size of the text was larger and if pages proposed a singular content or activity instead of multiple sections. The inclusion of simple, direct instructions was also suggested to make the app more suitable for exploration. Overall, participants provided

valuable insight into the relevance of mHealth apps' design to encourage the acceptance and adoption of digital solutions as envisioned by the upcoming pilot.

### ***Conclusions***

This study collected valuable feedback on the design of a mHealth app aimed at optimising medicines' use and control for older people. By involving users from an early stage, it was possible to identify specific adaptations deemed relevant to improve the app's usability and the users' acceptance for new technologies.

### ***Implications for applicability/transferability sustainability and limitations***

The recommendations in this study are relevant for the development of digital solutions targeting older individuals, following standards on user interfacing and accessibility. These findings add to the knowledge base on multimedia design and user experience for older populations.

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