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Purpose Research indicates that health-oriented applications on mobile units such as smartphones and PDAs, so called mHealth applications, can be useful to support older persons with cognitive impairment and their informal caregivers¹. However, several studies suggest that a prerequisite for older persons to start using computer-based technology is that it offers individual customization according to personal preferences^{2,3,4}. In the ongoing Horizon 2020 project SMART4MD (Support, Monitoring And Reminder Technology for older persons with Mild Dementia), an health-oriented model app has been developed through a user-centered process involving stakeholders in six European countries and with an emphasis on customization to allow for the various needs of older persons with cognitive impairment and their informal caregivers. The aim of this study is to gain insights about the specific needs of the target group and success factors related to the user-centered design process. **Method** Within the frames of the SMART4MD project, an initial Feasibility study was conducted in two countries (Spain and Sweden) simultaneously, in which in total nineteen persons with cognitive impairment aged 66-93, and their respective informal caregivers, performed a task-based usability test of the SMART4MD model app individually in a clinical setting, followed by a four-week testing of the app in their home environment. Finally, a usability evaluation was done through individual structured interviews. **Results & Discussion** The result indicates that less exposure to similar technology affects both ability and self-esteem when confronted with the model app, and that evaluating usability with the target group using standard forms within usability testing requires precautions.

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