

Usability of remote digital intervention: An analysis from the perspective of caregivers of elderly individuals with dementia

D. F. Alves, A. C. M. Gratão, P. C. Castro

Purpose Identifying the perceptions of caregivers of elderly people regarding the safety and usability of mobile applications, is a factor for improvements in remote digital interventions in order to increase adherence to use (Frohlich et al, 2020). Highlighted the insufficiency of research on online cognitive training for the elderly with dementia, which can be supported by their caregivers, taught through digital remote devices, the objective of this study is to analyze the usability of remote interventions monitored by caregivers of elderly people, aiming at a user-centered experience. **Methods** This investigation is part of a pilot feasibility study, with a quantitative-qualitative approach composed of elderly people with dementia and their caregivers, participants of a Gerontology Outpatient Clinic of the University Hospital of São Carlos – SP, Brazil. The study was conducted during the period of recess in outpatient activities and consisted of the use of a mobile application by participants during this period. Participants were classified into control group (CG) and intervention group (IG), and each participant formed a pair with their respective caregiver. Participants of the IG were invited to install the application Method of Sampling of Experience and Programmed Intervention (ESPIM) (Rodrigues et al, 2018) and to participate in the face-to-face training of using the platform. The ESPIM (Figure 1) contained cognitive activities for the elderly, and a questionnaire to monitor the burden of their caregivers. Each pair was followed for four weeks, and the activities and follow-ups were performed twice a week. After remote monitoring, caregivers of IG participants responded online to the System Usability Scale (SUS), which provides a score, enabling the evaluation of the usability of ESPIM. Caregivers also provided feedback on ESPIM through a focus group. In turn, CG participants received the same printed tasks and without the corresponding follow-up through ESPIM and performed the tasks for 4 weeks. **Results and discussion** Those who were not monitored through the ESPIM platform – Control group - during the holidays demonstrated a lower return rate, with only one participant returning and undergoing reevaluation. Four caregivers responded to the SUS and the average score was 76.25, considered very good, given the scores of this questionnaire, which indicate good usability above 68. Caregiver 1 (C1), who takes care of two older people, indicated that he felt overwhelmed using the app, and scored 57.5 on the SUS. Caregivers 2 (C2) and 3 (C3), both older people who care for other older people, despite indicating that they had difficulty using ESPIM, evaluated the system as good, scoring 75 and 70 in the SUS, respectively. Finally, caregiver 4 (C4) reported that monitoring and use were satisfactory, scoring 100 and evaluating the system as the best imaginable. With the SUS results, we realized that usability, measured by effectiveness, efficiency, and satisfaction, is influenced by the particularities of each caregiver, which can be reinforced with feedback from caregivers, such as “It was a good experience. Even though I answered the questionnaire for two people, which was a little tiring, it was good overall, C1.” “I thought it was good to be able to participate. It was a period in which we could enjoy and learn about the application. I was unable to send audio, only photos. I think it was a problem with the tablet, C3”. “For me, the support in the activities was great. I would like it to happen every week, for this activity to be constant. I think everyone should have access to this app. It would be very good for both the caregiver and the older people to exercise, and it improves our mood, C4.” **Conclusion:** Based on the results obtained through the System Usability Scale (SUS) and feedback from caregivers, we can conclude that the usability of ESPIM was considered very good by the participants.

References

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Keywords: mobile applications. caregiver. elderly people. dementia. health education

Address: Department of Gerontology, Federal University of São Carlos, Brazil; **Email:** castro@ufscar.br

Acknowledgement: (CAPES) - Finance Code 001. We also acknowledge the Post Graduate Program in Bioengineering at the University of São Paulo.

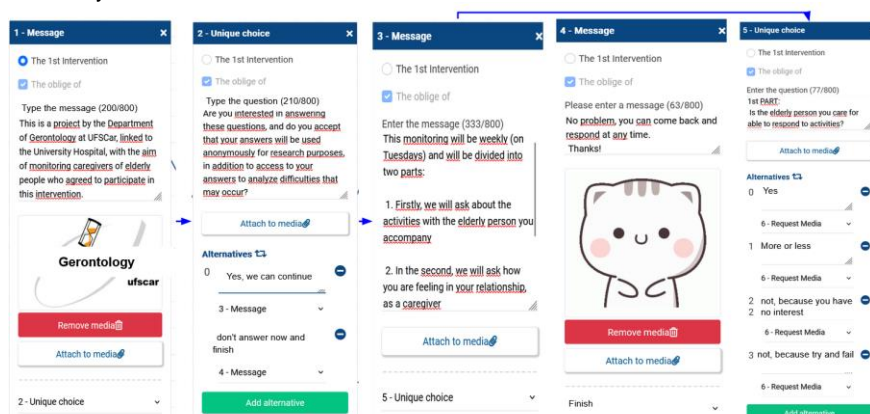


Figure 1. Example of an intervention activity in stages on ESPIM