Lim Choi Keung S et al, 2023 Actioning usability study findings in the development of the ADLIFE integrated care digital tools. International Journal of Integrated Care 23(S1):230 DOI: doi.org/10.5334/ijic.ICIC23230

CONFERENCE ABSTRACT

Actioning usability study findings in the development of the ADLIFE integrated care digital tools.

23rd International Conference on Integrated Care, Antwerp, Flanders, 22-24 May 2023

Sarah N. Lim Choi Keung[9], Theodoros N. Arvanitis[1,7,9], Gokce B. Laleci Erturkmen[2], Mustafa Yuksel[2], Bunyamin Sarigul[2], Gokhan Yilmaz[2], Morven Miller[3], Fritz Arndt[4], Jonah Grütters[5], Dolores Verdoy[6], Bárbara López Perea[6], Ana Ortega-Gil[6], Timothy Robbins[7], Helen Muir[7], Tracy Gazeley[7], Ioannis Kyrou[7], Harpal Randeva[7], Anna Hestner[8]

1: Institute of Digital Healthcare, WMG, University of Warwick, Coventry, United Kingdom
2: SRDC Software Research Development & Consultancy, Ankara, Turkey
3: Department of Computer and Information Sciences, University of Strathclyde, Glasgow, United Kingdom
4: Gesunder Werra-Meißner-Kreis GmbH, Eschwege, Germany
5: OptiMedis AG, Hamburg, Germany
6: Kronikgune Institute for Health Services Research, Barakaldo, Spain,
7: University Hospitals Coventry and Warwickshire NHS Trust, Coventry, United Kingdom
8: Region Jämtland Härjedalen, Östersund, Sweden
9: School of Engineering, University of Birmingham, United Kingdom

Introduction: The ADLIFE project aims to improve the quality of life of older people with advanced chronic diseases by providing integrated intelligent personalised care via a digitally enabled holistic and integrated supportive care ICT Toolbox. The two interlinked user-facing tools are firstly, a Personalised Care Plan Management Platform (PCPMP) used by healthcare professionals; and secondly, a Patient Empowerment Platform (PEP) that patients and their informal caregivers use to promote patient self-management.

The impact of the ADLIFE digital tools will be explored in a 12-month pilot study conducted across 7 clinical sites in 6 countries to evaluate their impact on a range of health-related, implementation and socio-economic outcomes.

The development of digital tools needs to be done in continuous collaboration with target end-users. Feedback from prototype testing with typical user scenarios is crucial to identify any remaining issues to resolve ahead of the deployment of such tools. We present the findings from a pre-deployment usability study conducted on the ADLIFE Toolbox.

Methods: Pilot sites recruited 3-5 participants for their feedback on the PCPMP and PEP tools. Usability data was collected using a standardised Questionnaire for User Interface Satisfaction (QUIS), administered online, following a training workshop and testing by the participants. One site collected feedback via a Patient and Public Involvement (PPI) approach for the PEP tool as an option for the activity timeline. The questionnaire responses were analysed to identify the key areas of improvement. The analysis includes a standard scoring system giving an indication of users' satisfaction with each facet of interest. These scores identify specific features of the ADLIFE tools

that have lower usability scores, allowing useful improvements to be made before deployment in the main ADLIFE pilot study. Additional free text comments are used to complement the QUIS scores and provide greater depth of understanding around specific usability issues. PPI responses were analysed separately as the group did not test the tool directly.

Results: 13 responses were received for PCPMP and 18 for PEP. Overall, the study participants (excluding 10 PPI participants) scored both tools above average, with scores over 66% on average in all questionnaire categories (scores of over 6 out of 9, average score on this scale is 4.5). Some areas of usability scored lower, such as task progression and highlighting where input is required. Together with comments elaborating on scores given, those areas are being assessed further for prioritising updates to the tools and also to be considered in the study planning, such as training materials and communication channels. The PPI feedback provided insight into how ADLIFE tools can fit within the wider context of healthcare and technology.

Conclusions: The usability studies have provided an opportunity to get feedback from participants similar to the ADLIFE study participants and make improvements to the ADLIFE tools, training and communication ahead of the pilot study start.

Acknowledgements: ADLIFE has received funding from the EU Horizon 2020 research and innovation programme under grant agreement no. 875209. The authors thank all partners within ADLIFE for their cooperation and valuable contribution.