The importance of user experience for psychosocial impacts of telemonitoring system utilization
K. Prevodnik, S. Hvalič-Touzery, V. Dolničar, M. Škafar, A. Petrovčič

Prevodnik et al. (2020). Gerontechnology 19(Suppl); https://doi.org/10.4017/gt.2020.19.s.69702.3

Purpose There is ample evidence of telehealth services being beneficial for managing patients with chronic diseases such as diabetes and hypertension. They do not only facilitate and im-prove data sharing and real-time communication between care professionals and patients with long-term conditions, but can also support patients' self-management of health that results in more safe and comfortable life at home over a prolonged period of time (Uei et al., 2017; Cartwright et al., 2017; Dolničar et al., 2017). Surprisingly, there is a lack of research that would empirically investigate the relationships between acceptability, usability and the self-assessed benefits of telemonitoring systems (TMSs) for patients with chronic diseases (Goodwin, 2010). Hence, this paper will present the results of an intervention study in Slovenia that explored how user experience (UX) of patients using home TMS affects their self-evaluation of its utilization over an extended period of time. **Method** Ninety-five patients with diabetes (n=17), or hypertension (n=54) or a combination of the two (n=33), defined as a primary disease, received the home TMS and tested it for 3 months. All participants (age range: 35–76 years) in the non-probability sample were recruited in a Health Centre by health professionals who actively participated in the intervention. The UX of the home TMS was evaluated with two standardized survey instruments (TUQ, SUTAQ), while the psychosocial impacts of TMS utilization were measured with the PIADS-10 questionnaire. Structural equation modelling was used to examine relationships between the perception of psychosocial impact of the TMS use, the evaluation of acceptability, usability and the intent for future TMS use, based on a theoretical model. **Results and Discussion** The study demonstrates that in our sample of patients with diabetes and/or hypertension, the psychological impacts of home TMS utilisation were influenced by its usability but not by its acceptability, regardless of patients' (control over) health and frequency of TMS use. The intent for future TMS use is directly influenced only by the usability of the service tested.

References

Cartwright M, Hirani SP, Rixon L, et al. Effect of telehealth on quality of life and psychological outcomes over 12 months (Whole Systems Demonstrator telehealth questionnaire study): nested study of patient reported outcomes in a pragmatic, cluster randomised controlled trial. 2013.

Dolničar V, Petrovčič A, Šetinc M, et al. Understanding acceptance factors for using e-care sys-tems and devices: Insights from a mixed-method intervention study in Slovenia. Springer Verlag; 2017.

Goodwin N. The State of Telehealth and Telecare in the UK: Prospects for Integrated Care. J. In-tegr. Care. 2010;3.

Uei S-L, Kuo Y-M, Tsai C-H, et al. An Exploration of Intent to Use Telehealth at Home for Patients with Chronic Diseases. Int. J. Environ. Res. Public. Health. 2017;14.

Keywords: home telemonitoring, psychosocial impact, chronic diseases, technology acceptance, usability
Address: Faculty of Social Sciences, University of Ljubljana, Slovenia
Email: Katja.Prevodnik@fdv.uni-lj.si