Title: Smart Home and its Use in the Occupational Therapy; With a Focus on Seniors

Abstract:

The bachelor thesis focuses on smart home and its use in the occupational therapy. The aim of the theoretical part is to describe smart home technology in relation to people with disabilities and seniors, and to outline the role of the occupational therapist in this issue. The aim of the practical part is to assess the suitability of implementing smart home technologies in the households of selected seniors and to compile an overview of specific technologies that could address the relevant problem areas.

The practical part includes five case studies, one of which serves as a model case study of a senior who already uses smart home elements in their household. The following tests and tools were used to process the case studies: the Barthel Index to assess personal activities of daily living (pADL), the Assessment of Living Skills and Resources Revised 2 for instrumental activities of daily living (iADL), the Montreal Cognitive Assessment to evaluate cognitive functions, and the Smart Evaluation Methodology of Accessibility for Home to assess the home environment. A semi-structured interview was then conducted with clients about their relationship to technology and awareness of smart home.

Based on the collected data, problem areas where smart home technologies could be applied were selected, and then an overview of relevant technological solutions was compiled. As the selected seniors showed low awareness of smart home devices and low motivation to use them, one occupational therapy intervention was proposed for each case study. These proposals take these facts into account and focus on supporting seniors' adaptation to new technologies. The findings suggest that there is a need to focus more on external support for users of smart home technologies and that the selection of devices should always be tailored to their individual needs.

Key words: occupational therapy, smart home, assistive technology, seniors