

Research on the sustained use of technology to support aging in place by community dwelling older adults

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THEORETICAL BACKGROUND

The majority of the industrialized countries are faced with an aging population: by 2040 the proportion of older people will double to 14 percent of the total world population [1,2]. For European countries such as the Netherlands the trend is especially alarming, since these countries are faced with “double aging” [3]: a “grey wave” caused by those born after the Second World War, coupled with a rising life expectancy. The aging of the population will lead to an increase in chronic disease conditions and age-related illnesses, which will put an increasing pressure on healthcare providers. One way to lower this pressure is by enabling older adults to age independently in their own homes. A number of technologies are being and have been developed to support these community dwelling older adults. At the same time not all older adults are willing to accept and use these technologies [6-8]. Technology can only enable and extend aging in place when it is used for a considerable amount of time. It is the research goal of the multi-stakeholder project “Aging all right, with technology by your side” to explore which factors lead to sustained use of technology by community dwelling older adults. Also, knowledge of these factors will be used to develop educational programs for professional caregivers and technology providers to enable them to provide adequate support of end-users. Technology in this project is defined as: electronic means that are developed to support aging in place.

METHODS

Our research consists of three phases:

- (1) a systematic literature review of factors influencing technology acceptance by community dwelling older adults (completed, manuscript in preparation)
- (2) a qualitative longitudinal study of 45 community dwelling older adults (≥ 75 y.) , aimed at describing and explaining sustained use and non-use of technology within the home (September 2013 – September 2016)
- (3) testing of a model of sustained use by community dwelling older adults, within a population other than the population of phase 2 (2016)

RESULTS

Results of phase 1 (systematic literature review) show that 12 of the 16 studies in the review were executed at the pre-implementation stage, investigating the intention to use a technology sometime in the future. Of the four post-implementation studies two were longitudinal. The majority of the

studies (15) investigated the use of monitoring or communication technology. Only one study linked or contributed to established models of technology acceptance [9, 10].

DISCUSSION

Results show there is a lack of longitudinal studies explaining sustained use in the post-implementation stage. Our research in phase 2 is aimed at filling this gap. In this phase we will be studying the use and non-use of different types of supportive technology by community dwelling older adults within a naturalistic setting. Results will be compared to available general models of technology use and acceptance that are used in cross sectional studies [7-9]

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