

POSTER SESSION 2

Enhancement of the mobility and social connectedness in older people with a chronic disorder by using an activity tracker and social interactions gatherings

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Purpose The Dutch population is aging. In 2018, an estimated number of 3.2 million people were 65 or older (19% of the entire population) (Volksgezondheidszorg.info, n.d.). This percentage will raise to 24 in 2030 (Rijksinstituut voor Volksgezondheid en Milieu, 2014). 70 percent aged 65 years and over have a chronic illness (Schumacher, n.d.). At some point these older people often follow a rehabilitation process, but for them it is difficult to maintain the motivation to keep up with enough movement to be physically active and remain socially active after rehabilitation. The purpose of the project was to increase the daily activities and exercises of single-living older people with one or more limitations in functioning after a period of rehabilitation. **Method** A field trial (6 months for each participant) was set up in Houten and Nieuwegein in the Netherlands. A total of 29 older adults, with different chronic diseases, participated in the project. The criteria were: living independently, single, 65 years or older, with one or more disability and not using a walking aid. Before and after the trial the participants were asked to fill out the loneliness scale (De Jong Gierveld & Tilburg, 2008). In addition to this, daily measurements of steps were made by using a Sensewear Bracelet (validated measurement tool) (Van Remoortel et al., 2012). The loneliness scale traced the emotional and social loneliness score on a 5-point scale. Together this added up to a total score for loneliness (11 max). The Sensewear Bracelet measures the total energy, the active energy consumption, duration and level of physical activity, number of steps, active and rest periods, sleep duration and sleep/wake efficiency. During the trial the participants used the activity tracker Garmin Vivosmart HR+, which continuously registers physical activity, sets goals and gives reminders. Furthermore, meetings were organized. The aim of the meetings was to facilitate peer-support and to make new social contacts in the neighborhood. By the end of the trial, in June 2019, the participants who gave permission and wanted to keep the activity tracker (N=18), were contacted (via email and telephone). This to examine whether participants were still using the activity tracker and whether they desired any support. **Results & Discussion** The loneliness scale was completed twice by 22 participants and 21 participants did wear the Sensewear twice. The results of the loneliness scale (total) and the steps are reported under table 1. After the trial 14 participants were contacted in October 2019. Three of them stopped using the activity tracker, because to them it had no added value or because the activity tracker did not feel comfortable to wear. The other participants used the activity tracker on a regular basis (most of them on a daily basis). The number of participants in this project was low being an explorative study, so this may have affected the results. The project had no effect on the steps per day of the participants, but the project had a positive effect on loneliness. Most of the participants who kept the smartwatch still use it and finds pleasure using the device.

References

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Table 1. results loneliness scale and number of steps
T=0 (start of the project) and T=1 (end of the project).

	T=0	T=1	p-value
Loneliness scale (total) – N=22	3,45 ± 2,69 (Mean ± SD)	2,86 ± 2,77 (Mean ± SD)	0.042
Steps – N=21	5440 ± 2658 (Mean ± SD)	5435 ± 2628 (Mean ± SD)	0.495