# PAPER

## Acceptance and Use

*C.A.L. VALK, M.C. WINTERMANS, Y. LU, M.M. BEKKER, R.G.A. BRANKAERT. Identifying factors for personalized strategies to motivate seniors to adopt a more active lifestyle. Gerontechnology 2018;17(Suppl):63s;* https://doi.org/10.4017/gt.2018.17.s.063.00 **Purpose** Sedentary lifestyles threaten the independence and wellbeing of the rapidly growing senior population[1]. This lack of physical activity contributes to symptoms of frailty[2]. Maintaining or increasing physical activity has many benefits[3] and can increase senior independence[3]. The value of personal profiling (context of work, personal traits...etc.) according to personal drivers toward behavioral intention is accepted[4,5]. User profiling relates to the goal that the user aims to reach, while psychological factors relate to motivation towards behavior changes[6]. It is therefore necessary to investigate which profiling factors are important to create personalized motivational strategies for promotion of physical activities. **Method** In this observational study, community dwelling senior members of a local Dutch senior community center were asked to wear the Xiaomi Band step counters and record their daily activities in diary-like cultural probe with both open and closed questions. Personal trait information, including age, gender, their perceived age, perceived health, participant stage of change[7] and their Regulatory Focus[8], was collected at the beginning and end of the 3-month test period. **Results & Discussion** Of the 52 seniors initially recruited, 44 submitted diaries and 15 yielded complete step data. To explore the relationship between participant's personal traits and activities, a word search on the qualitative data from the diaries was done to find how often participants mentioned high, moderate and low intensity physical activity. The number of references which male and female participants made about these levels of physical activity was compared using a non-parametric test correlation analysis using Spearman's rho correlation efficient. With 95% confidence, this analysis implied that female participants undertook a higher diversity of physical activity in terms of intensity compared to male participants (Spearman's rho=0.878). This result suggests that gender is one important profiling factor concerning the promotion of physical activity. A similar analysis was conducted to examine the level of physical activity reported compared to participant's level of perceived health. This analysis indicated, with 99% confidence (Spearman's rho=0.698), that participants with higher perceived health undertook activities with more diverse levels of physical intensity. Further research is needed to see if health or self-efficacy could cause this correlation. In a linear regression analysis, no significant difference was found between the number of steps participants with a different regulatory focus[8] (promotion or prevention) made. The number of steps participants completed was correlated with the months that the steps were taken in (February, March, or April). This could be possibly due to the improved weather and could suggest that personalized strategies addressing participant's environment or context can also increase motivation to physical activity.

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