

【Original Article】

Types of Social Participation and Patterns of Objectively Determined Sedentary Behavior and Physical Activity in Community-Dwelling Older Adults

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Abstract

Objective: The aim of this study was to examine associations of types of social participation and objectively assessed sedentary behavior (SB) and physical activity (PA) patterns in community-dwelling older adults.

Methods: This cross-sectional study was conducted in 2015. The study sample was 1,314 Japanese older adults who were originally randomly selected from three cities (Bunkyo, Fuchu and Oyama) and took part in a community-based survey carried out in 2010. In 2015, participants who agreed to accelerometer survey were asked to wear the accelerometer (Active style Pro HJA-350IT) on their waist for seven consecutive days. SB, light-intensity PA (LPA), and moderate-to-vigorous PA (MVPA) were evaluated. Social participation was examined using question items from the National Health and Nutrition Survey in Japan and was classified into two types; community involvement and individual relationship. Sex-stratified multiple linear regression analysis was used to examine the associations between each type of social participation and patterns of SB and PA after adjustment for age, residential area, living arrangement, working status, driving status, body mass index, self-rated health, physical functioning, and accelerometer wear time.

Results: Data from 450 participants was analyzed. In multiple regression analysis, higher level of community involvement was associated with longer time spent in short-bout (<10 min) MVPA in older men ($\beta=1.56$, $p=0.03$) and women ($\beta=2.91$, $p<0.01$). In women, community involvement was also related to reduced total SB time ($\beta=-11.43$, $p<0.01$) and increased LPA time ($\beta=8.13$, $p=0.03$).

Conclusion: Promoting community involvement may increase short-bout MVPA and LPA time in older adults.

Key words: accelerometry, epidemiology, public health, social interaction

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