Abstract

Background: It is unclear whether participation in exercise programs specifically developed for elderly translates into a more active lifestyle. Objectives: To compare the objectively measured level of physical activity in daily life (PADL) between physically independent elderly who participate or do not participate in community-based exercise programs; and to evaluate which factors are associated with the higher level of PADL in these subjects. Method: 134 elderly participants in community-based exercise programs (PG) and 104 non-participants (NPG) had their level of PADL measured using pedometers during 7 days. Other measurements: 6-minute walking test (6MWT), incremental shuttle walking test (ISWT), muscle strength, flexibility and balance. Results: The PG had higher 1-week mean daily step count than NPG (8314 [IQR 5971-10060] vs. 6250 [IQR 4346-8207] steps/day, p<0.0001), as well as higher step count in any day of the week. There was a higher proportion of physically active subjects (8000 steps/day) in PG than in NPG (37% vs. 16%, respectively; p<0.001), as well as the proportion of sedentary subjects (<5000 steps/day) (14% vs. 33%, respectively; p<0.001). Participation in exercise programs, 6MWT and ISWT explained a higher daily steps count (model r2=0.56, p<0.0001). Conclusions: In physically independent elderly, a higher level of physical activity in daily life occurs in those who participate in community-based exercise programs, regardless of the weekday and including nonprogram days. Participation of elderly in community-based exercise programs should be more systematically available and encouraged due to its close link to higher activity levels and better exercise capacity.

Keywords

Aged, motor activity, exercise, rehabilitation, regression analysis.