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Abstract Puijo symposium 2014

A 6 YEAR LONGITUDINAL STUDY OF ACCELEROMETER MEASURED PHYSICAL ACTIVITY AND SEDENTARY TIME IN SWEDISH ADULTS

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Objective

The objective of this study was to investigate changes over time (6 years) in physical activity (PA) and sedentary behavior assessed with accelerometry (Actigraph 7164) in a representative sample of Swedish adults.

Methods

The cohort consisted of 1,172 participants (537 males) in 2002 and 511 participants (236 males) in 2008, of which 478 (215 males) had valid data on both occasions. To analyze changes over time, a mixed linear model for average intensity (counts per minute), and minutes per day in sedentary, light and moderate or higher intensity PA was conducted for the total sample and stratified for sex and age, adjusting for BMI, education, self-rated health and Δ wear time.

Results

For average intensity, no significant change over time was found in the total sample ($p = 0.10$). However, a significant decrease over the follow-up period was found for men (mean 33 min, $p = 0.006$) and those aged 60-75 years at baseline (mean 53 min, $p < 0.001$). Sedentary time increased and light intensity PA decreased significantly over the follow-up period (mean 26 min and 51 min, respectively, $p < 0.001$), occurring across sex and age groups. For time in moderate or higher intensity PA, a significant increase over the follow-up period was found for women (mean 3.9 min, $p = 0.006$) and those aged 40 – 59 year (mean 3.3 min, $p = 0.014$) at baseline.

Conclusion

The results suggest no change in objectively assessed total physical activity over six years in the total cohort. However, when stratified by sex and age changes in the pattern of PA and sedentary time in different subgroups were observed. Our results further support the need for public health strategies to increase PA and decrease sedentary time in the population, especially among men and those aged 60 years and older.