

## P28. Monitoring of physical activity levels of guide dog owners – a preliminary study

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### INTRODUCTION

Despite the well-documented benefits of regular physical activity, people with disabilities are often challenged with too many barriers that discourage an active lifestyle. This is particularly evident among people with visual impairments (VI). Previous studies have shown that adults with VI are significantly less active than the general population, and do not meet the physical activity recommendations of the World Health Organisation (WHO). However, most study samples are based on participants using a white cane. Owning a guide dog is often described as a factor for increased mobility and has the potential to increase physical activity. Therefore, the purpose of this preliminary study was to objectively assess the physical activity of adults with VI assisted by a guide dog.

### METHODS

Fourteen adults with VI and owners of guide dogs (age average: 48.2 years; 8 male), living in the Lisbon metropolitan area, were recruited by email through the database of the only training school of guide dogs in Portugal. Daily physical activity was measured with the Actigraph activity monitor (model GT1M; Actigraph LLC). Participants were asked to wear the accelerometer, securely attached on the right hip, during all waking hours (except during water activities), for 7 consecutive days. The use of the accelerometer for at least 3 days (including 1 weekend day) with recordings of  $\geq 600$  min/day served as the criterion for a valid registration. Activity counts were recorded in 15-s epochs.

### RESULTS

Despite spending most of the wear time in sedentary activity (75.9% on average), participants accumulated 32.5 min/day in health-related physical activity (moderate: 30.49 min/day; vigorous: 2.01 min/day). Fifty percent of the participants (n=7) reached the recommendations of 30 or more min/day of moderate-to-vigorous physical activity (MVPA). Participants also accumulated on average 6980 steps/day. When compared with previous studies regarding the physical activity of Portuguese adults with VI, our participants accumulated on average more min/day of MVPA, a higher percentage of participants reached the WHO recommendations of 30 min/day of MVPA on most weekdays and accumulated more steps per day.

### CONCLUSIONS

Our results suggest that owning a guide dog can promote a higher level of daily physical activity on adults with VI, facilitating the achievement of the WHO recommendations on physical activity. In order to better understand this specific population, more data should be collected.

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