

## *Untangling the relationship between physical capacity and physical activity in people with dementia*

Sara Almeida,  
University of Aveiro, Portugal



### *Abstract*

Physical capacity (PC) is an important determinant for physical activity (PA). Nevertheless, an increase in PC does not imply a more physically active lifestyle but the relationship between these two domains is still unknown in people with dementia. We explored the relationship and the distribution of people with dementia across the four quadrants of PC and PA levels.

An exploratory cross-sectional study with community-dwelling people with dementia was conducted. PA was assessed with accelerometry. Participants wore the device for 7 consecutive days during waking hours on the right side of their hip. Data of at least 4 days and minimum of 8h/day were used for analysis. PC was measured with the 2 Minute Step Tests (2MST). Receiver operating characteristic curve was performed to establish a cut-off point for 2MST able to discriminate physically active from non-physically active people with dementia. Correlations were explored with the Spearman Correlation Coefficient.

Twenty-five people with dementia (79 [72-83] years old; 16[64%] female) participated in this study. A cut-off of 34 steps was found for the 2MST (91.7% (95%CI 61.5-99.8%) sensitivity and 69.2% (95%CI 38.6-90.9%) specificity). Significant, moderate and positive correlations ( $r_s=0.66$ ;  $p<0.001$ ) were found between PC and PA.

In this study, people with dementia who presented low or high PC were also low or high physically active, respectively. Future studies with larger samples should be conducted to corroborate these results, exploring other characteristics of participants and to understand their influence on physically active lifestyle

behaviour in this population.



### *Biography:*

She completed her Master's Degree in Gerontology - Equipment Management from the University of Aveiro in 2015. She published 2 papers in the minutes of events. It has 3 items of technical production. In her professional activities, she interacted with 2 collaborators in co-authorship of scientific works.

### *Speaker Publications:*

1. Almeida, Sara. 2016. "Balance and Anxiety and Depression symptoms in Old Age People", Work presented in Health, demographic changes and well-being, In -, Leiria.
2. Almeida, Sara; Santos, J; Marques, A. 2016. "Balance Differences in Community Based Older People", Paper presented at I International Health Days at the School of Health of the University of Aveiro, In -, Aveiro.
3. "Untangling the relationship between physical capacity and physical activity in people with dementia"; 2020

[14<sup>th</sup> International Conference on Alzheimer's Disease & Dementia](#); Webinar, October 12-13, 2020.

### *Abstract Citation:*

Sara Almeida, Untangling the relationship between physical capacity and physical activity in people with dementia, Dementia 2020, 14<sup>th</sup> International Conference on Alzheimer's Disease & Dementia; Webinar, October 12-13, 2020



<https://alzheimersdementia.neuroconferences.com/abstract/2020/untangling-the-relationship-between-physical-capacity-and-physical-activity-in-people-with-dementia>