

Physical and psychosocial correlates of daily walking in people living with dementia: a cross-sectional accelerometry study

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Introduction

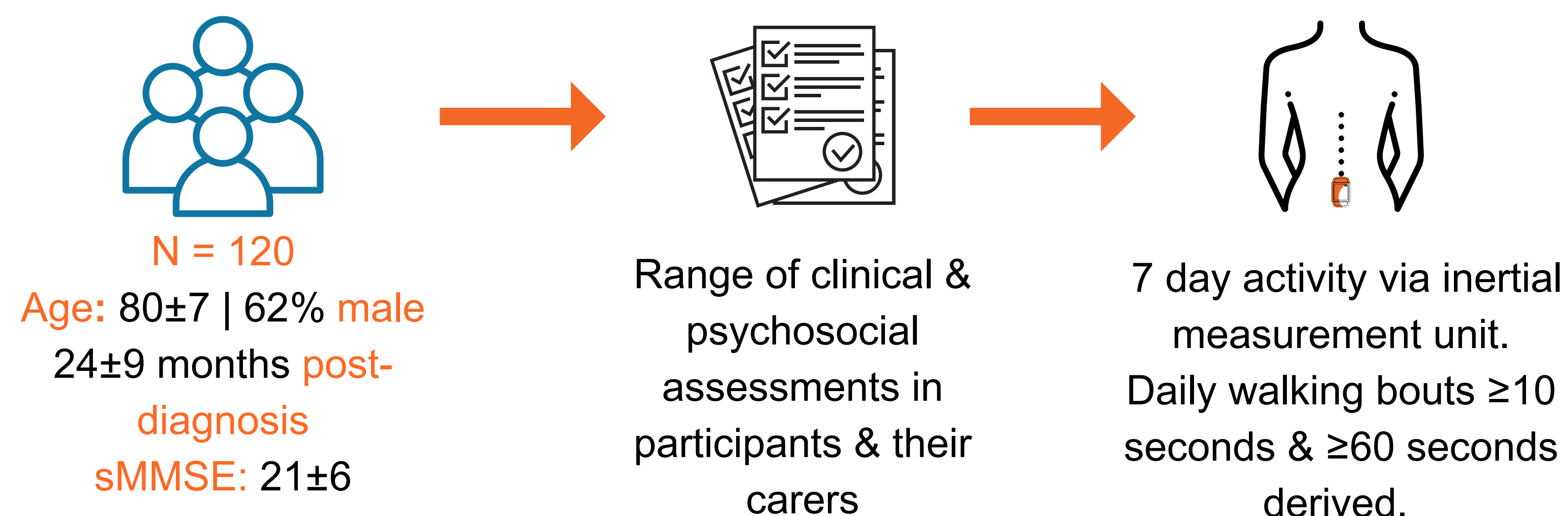
- Dementia progressively affects physical mobility, associated with reduced walking & physical activities, impaired gait & high fall risk [1,2].
- Disease-related features, such as cognition, contribute to mobility impairments.
- Qualitative research suggests that physical & psychosocial features (e.g. personal & social experiences) are also important & potentially modifiable contributors [3]. However, this has not been quantified.

Objective

To explore quantitatively the **association between disease-related, physical, & psychosocial characteristics and daily walking activities in people living with dementia.**

Methods

133 people living with dementia were recruited from the DETERMIND cohort [4]; assessment procedure below. 120 participants had ≥ 3 days activity data & were retained for analysis.



Seven conceptual variable blocks (**disease, physical function, social networks, psychological wellbeing, carer role & health, caregiving style, and carer wellbeing**) were examined using linear mixed-effects models, adjusting for age and gender. Significant variables were included in a final combined model.

Patient & Public Contributors affected by dementia were involved in study conceptualisation, design, governance & selection of model variables.

Results

Distribution of daily walking bouts can be found in Figure 1.

≥ 10 -second bouts: male sex and larger social networks were associated with more walking bouts, while older age, poorer perceived mobility, and more caregiving hours were associated with fewer bouts (Figure 2).

≥ 60 -second bouts: larger social networks with more walking bouts, while older age and poorer perceived mobility were associated with fewer bouts (Figure 2).

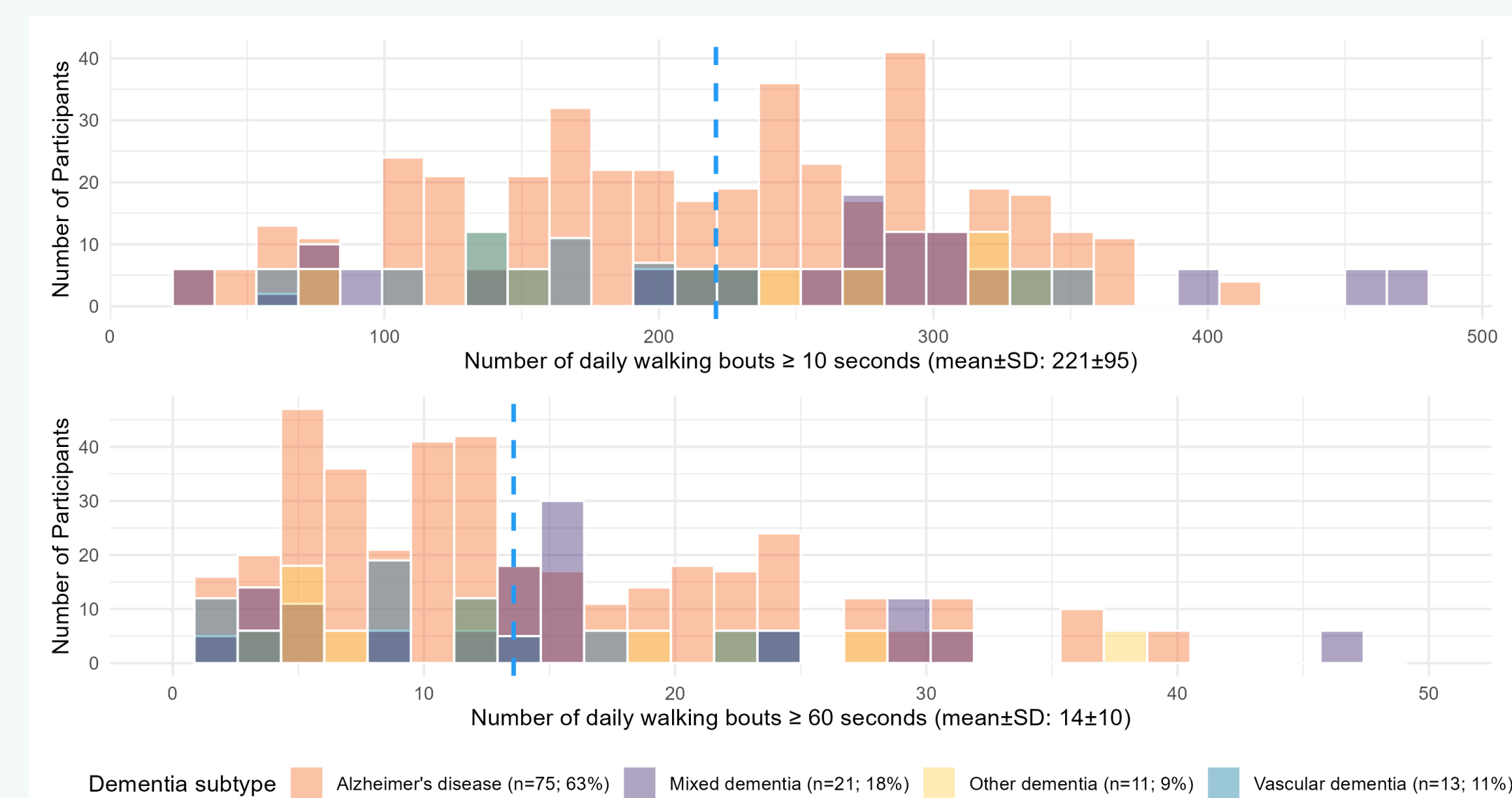


Figure 1: Distribution of daily walking bouts across participants

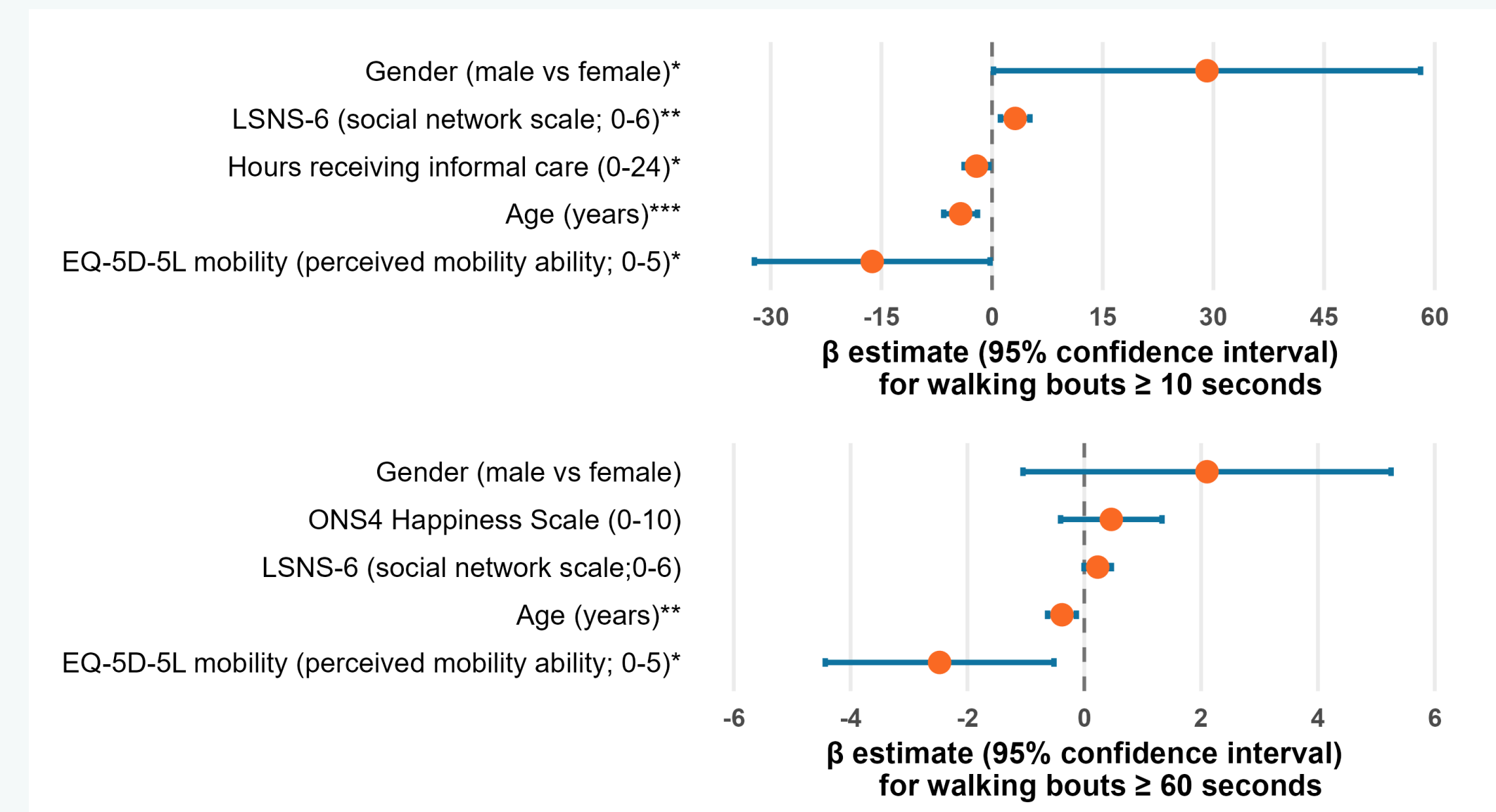


Figure 2: Estimated associations between participant characteristics and daily walking bouts ≥ 10 s and ≥ 60 s from the final linear mixed-effects models.

LSNS-6: Lubben Social Network Scale, *, $p < .05$, **, $p < .01$, ***, $p < .001$

Conclusion

Disease-related features were not independently associated with daily walking. Perceived mobility & social support may be **modifiable targets** to help maintain daily walking.