Title: Association between gait and cognition in an elderly population based sample

Authors: Vyara Valkanova, Patrick Esser, Naiara Demnitz, Claire E. Sexton, Enikő Zsoldos, Abda Mahmood, Ludovica Griffanti, Mika Kivimäki, Archana Singh-Manoux, Helen Dawes, Klaus P. Ebmeier

PII: S0966-6362(18)31317-1
DOI: https://doi.org/10.1016/j.gaitpost.2018.07.178
Reference: GAIPOS 6452

To appear in: *Gait & Posture*

Received date: 16-9-2017
Revised date: 20-6-2018
Accepted date: 27-7-2018

Please cite this article as: Valkanova V, Esser P, Demnitz N, Sexton CE, Zsoldos E, Mahmood A, Griffanti L, Kivimäki M, Singh-Manoux A, Dawes H, Ebmeier KP, Association between gait and cognition in an elderly population based sample, *Gait and amp; Posture* (2018), https://doi.org/10.1016/j.gaitpost.2018.07.178

Association between gait and cognition in an elderly population based sample

Vyara Valkanova[1]*, Patrick Esser[2,3], Naiara Demnitz[1,3], Claire E. Sexton[3], Enikő Zsoldos[1], Abda Mahmood[1], Ludovica Griffanti[3], Mika Kivimäki[5], Archana Singh-Manoux[4,5], Helen Dawes[2], Klaus P. Ebmeier[1]

[1]Department of Psychiatry, University of Oxford, Oxford, OX3 7JX, United Kingdom

[2] Movement Science Group, Oxford Brookes University, OX3 0BP, United Kingdom

[3] FMRIB Centre, Nuffield Department of Clinical Neurosciences, John Radcliffe Hospital, University of Oxford, OX3 9DU, United Kingdom

[4]Centre for Research in Epidemiology and Population Health, INSERM, U1018, Villejuif, France

[5]Department of Epidemiology and Public Health, University College London, UK

*corresponding author vyara.valkanova@psych.ox.ac.uk

Highlights

- Gait is thought to have a cognitive component, but the evidence in elderly is mixed.
- We studied the association between multiple gait and cognitive measures.
- No strong relationship in a cognitively healthy, high functioning sample of elderly.
- Nevertheless we find some relationships with spatial, but not temporal gait.
- White matter hyperintensities made no independent contribution to gait measures.

Abstract

Background

Gait is thought to have a cognitive component, but the current evidence in healthy elderly is mixed. We studied the association between multiple gait and cognitive measures in a cohort of older people.