205 PHYSICAL ACTIVITY MODULATES GEOGRAPHICAL VARIATIONS IN COGNITIVE AGEING: RESULTS FROM...

Article in Age and Ageing · September 2016
DOI: 10.1093/ageing/afw159.186

2 authors:

Marica Cassarino
University College Cork
5 PUBLICATIONS  6 CITATIONS
SEE PROFILE

Annalisa Setti
University College Cork
47 PUBLICATIONS  190 CITATIONS
SEE PROFILE

Some of the authors of this publication are also working on these related projects:

Outdoor lived environment as 'brain training'; View project

Deficits in perceiving environmental stimuli across the senses in fall-prone older adults View project
PHYSICAL ACTIVITY MODULATES GEOGRAPHICAL VARIATIONS IN COGNITIVE AGEING: RESULTS FROM THE IRISH LONGITUDINAL STUDY ON AGEING

Marica Cassarino, Annalisa Setti
University College Cork, Cork, Ireland

Background: Recent evidence indicates that rural individuals show poorer cognitive performance than urban dwellers. Urban environments offer a wider range of cognitive stimulation, and are associated with higher levels of tonic arousal. A cross-sectional association between urban living and better performance in global cognition (Montreal Cognitive Assessment, MoCA) has been found after controlling for individual level factors (Cassarino, O’Sullivan, Kenny & Setti, 2015). Another study found a non-linear relationship between land-use mix and dementia. The present study aimed to assess whether the cognitive disadvantage of living in a rural environment may be compensated by modifiable lifestyle factors, i.e. physical activity. We hypothesised that levels of physical activity would modulate cognitive performance especially for rural dwellers, who most need cognitively stimulating activities.

Methods: Cross-sectional analyses of MoCA were conducted for healthy Irish people aged 50+ participating in Wave 1 of The Irish Longitudinal Study on Ageing, in relation to the interaction between levels of physical activity measured through the International Physical Activity Questionnaire, and residence either in urban, suburban, or rural areas, while controlling socio-demographic, health, and other lifestyle factors.

Results: After controlling for confounders, engaging in vigorous weekly physical activity modulated the association between environment of residence and global cognition, with physically active rural participants showing no differences from the urban group in terms of MoCA scores. No interactions were found for the other environments.

Conclusions: The results support the hypothesis that engaging in physical activity can compensate for urban-rural differences in cognitive performance in ageing. The findings have implications for the promotion of lifestyle initiatives tailored to the environment of residence.

References: