

Physical activity moderates the association between fertility history and later life health



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Introduction

High parity and early parenthood are associated with adverse health outcomes in old age. Biosocial pathways underlying these associations may include adverse life style factors. One potential promoter of health is physical activity which is associated with numerous advantageous health outcomes throughout the life-course. We examined whether physical activity moderates later life health disadvantages related to high parity and early child birth.

Methods

Sample: English Longitudinal Study of Ageing (ELSA) waves 1 - 5 (2002-2010) - nationally representative survey of men and women aged 50+ (mean age = 63, SD = 9.2 in wave 1).

Functional limitations: A sum score of self-reported difficulty in performing 10 tasks related to mobility, strength and endurance.

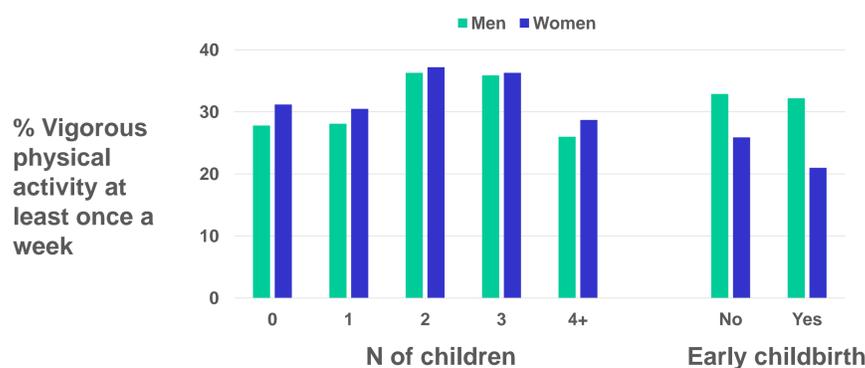
Physical activity: Self-reported physical activity (sedentary/mild, moderate and vigorous activity at least once a week).

Fertility history: Number of natural children (0, 1, 2, 3, 4+); for parents: young (<20/23) age first birth; late age last birth (>34/39).

Covariates: Age, education and smoking (from wave 1). Currently married, co-residence with child (parents only), wealth, depressive symptoms (time-varying from waves 1-5).

Analysis: Latent growth curve modelling.

Figure 1 – Vigorous physical activity by fertility history

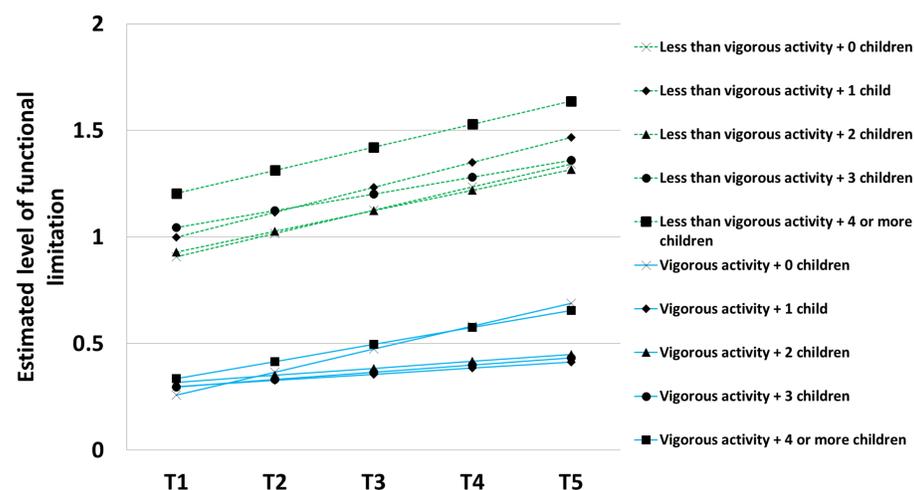


Results

Physical activity was lower among those who had experienced early childbirth and those with high parity (4+ children) (Figure 1). Functional limitations remained in a considerably lower level in those who were physically active. Among the vigorously physically active, parity was not associated with any difference in functional limitations, whereas there was a clear disadvantage

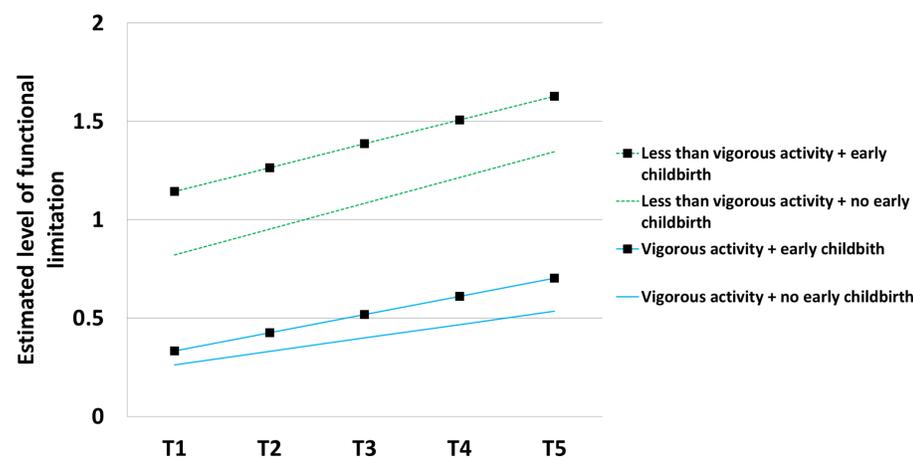
of high parity among the less physically active (Figure 2 for men; the results for women were very similar).

Figure 2 – Functional limitations by parity and vigorous physical activity in men



Experiencing early parenthood had very little effect on functional limitations among those who were vigorously physically active, whereas among the physically less active, early parenthood was associated with a considerably higher level of functional limitations (Figure 3 for men; the results for women were very similar). In women also moderate activity several times a week made the associations between high parity and early childbirth and functional limitations disappear.

Figure 3– Functional limitations by early childbirth and vigorous physical activity in parous men



Conclusions

Early parenthood and high parity are associated with poorer health – and with sedentary behaviour. Vigorous physical activity at least once a week, and in women also moderate activity several times a week, moderate the adverse health outcomes related to high parity and early parenthood. The usefulness of physical activity interventions among older people with adverse fertility history needs further investigation.