

P16 GENDER DIFFERENCES IN WALKING (FOR LEISURE, TRANSPORT AND IN TOTAL) ACROSS ADULT LIFE: A SYSTEMATIC REVIEW

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Background The possibility of gender differences in walking practices has largely been ignored, but an understanding of whether and how walking practices differ between men and women would usefully inform interventions to promote walking. The aim of this systematic review was to examine gender differences in walking for leisure, transport and in total in adults, and to assess whether gender differences in walking practices change across the adult life-course.

Methods Web of Science Core Collections, PubMed and the Transportation Research International Documentation databases were searched to identify relevant studies, as well as reference lists of included studies. Papers providing quantitative data on the walking of both men and women aged 18 years and above in a high-income country and published between 1995 and 2015 were identified. Data assessed as high quality were extracted and results were synthesised using forest plots and narrative summary.

Results Of the 24 498 studies retrieved by the search strategy, 36 studies were included. Most (30) studies reported data on the prevalence of walking for a minimum duration, usually 10 min per week, either in total or for a specific purpose. Of these, 6 of 6 studies combining all ages found that more women than men walked for leisure (Odds Ratios (ORs) 1.12–1.47). There was no evidence of a gender difference in overall walking for transport (ORs 0.78–1.11 for 3 studies combining all ages), but 3 of 3 studies found that more women than men walked to undertake errands (ORs 1.08–2.97). 5 of 6 studies combining all ages reported no gender difference in total walking (ORs 0.90–1.39). 6 studies reported on walking for leisure by age group; more young women than young men walked for leisure (ORs 1.54–1.99), but this difference consistently declined with age such that in the oldest age groups it had disappeared or reversed (ORs 0.63–0.96). There was some evidence for a similar pattern in overall walking.

Conclusion While we found no gender difference in participation in walking overall, we did find consistent gender differences in participation in walking for some purposes, including for leisure, and that there are gender differences in the impact of age on walking. We conclude that more research is needed to improve our understanding of how walking fits into the lives of women and men across the life-course, especially in relation to gender differences in the impact of ageing on walking.

P17 CHRONIC MALNUTRITION IN EARLY LIFE AND COGNITIVE OUTCOME IN MID-CHILDHOOD: EVIDENCE FROM FOUR DEVELOPING COUNTRIES

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Background Chronic malnutrition is a major global health challenge, particularly in low- and middle-income countries (LMICs). Malnutrition, in particularly stunting in early

childhood, is associated with developmental delay, including cognitive deficits and poor academic performance, often leading to reduced work capacity in adulthood. Few studies have examined the long-term influence of chronic malnutrition in early life on subsequent cognitive outcome and how recovering from early stunting can benefit cognitive development in a cross-national context.

Methods Analysing data on 8062 children in Ethiopia (n=1,999), India (2,011), Peru (n=2,052) and Vietnam (n=2,000) from the Young Lives Study, a cross-national cohort study on child poverty and wellbeing in the developing world, we studied younger cohort, enrolled in 2002 at ages 6–17.9 months (round 1), followed in 2006 at 5 years old (round 2) and in 2009 at 8 years old (round 3) to explore whether duration of chronic malnutrition in early life matters for cognitive outcome and whether recovery from early stunting benefits for cognitive development.

The duration of stunting was defined as having a HAZ Height-for-Age Z scores (HAZ) < -2 based on WHO standards. Chronic malnutrition was determined as the number of stunting for three rounds, ranging from 0 to 3. Recovery from stunting was defined as having a HAZ > -2 in subsequent rounds after baseline. Cognitive outcome was assessed at age 8 using the Peabody Picture Vocabulary Test (PPVT) to evaluate vocabulary skills and listening comprehension.

Results Longer term of being stunted was associated with lower cognitive scores at age 8 for both girls (p<0.05) and boys (p<0.01). We found catch-up growth from early stunting significantly increases cognitive outcomes of girls who were stunted at baseline (coef=7.91, p<0.01). No significant associations were found for boys. Chronic malnutrition during childhood can be detrimental for children's cognitive development in later life. Recovery from early stunting is possible, in particular for girls and this can lead to improvement in cognitive development.

Conclusion Policy makers and program planners should consider redoubling efforts to prevent stunting and promote catch-up growth over the first few years of life, especially for girls, as a way of improving children's physical and intellectual development. Given the important role girls and women play in contributing to national and global economies, improving nutrition in early childhood of girls in developing countries is a long-term economic investment and driver of economic growth.

P18 IS THE RISK OF PERMANENT CHILDHOOD HEARING IMPAIRMENT HIGHER IN BABIES OF SHORTER GESTATIONAL LENGTH?

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Background Permanent childhood hearing impairment (PCHI) has major implications for social and cognitive development over the life-course. Early detection and management improves outcomes, providing the rationale for universal newborn hearing screening (UNHS), introduced in England from 2002. In England and Wales, one baby in every eight is admitted to specialist neonatal care, including neonatal intensive or special care baby units (NICU/SCBU), a known risk factor for PCHI, however the association with gestational length remains