Life course influences on health

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Family-work history and inequalities in old-age cognition in China
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Prior work showed that an individual's history of partnership, fertility, or employment was separately linked to old-age cognition, but little is known about how family-work history influences later-life cognition, especially in low- and middle-income countries. Our sample comprised respondents aged 50 and above in 2014 interviewed in regular (2011, 2013, 2015, 2018, and 2020) and life-history (2014) waves of the China Health and Retirement Longitudinal Study (CHARLS) (n = 8,535). After conducting sequence analysis and identifying six statistically justifiable and context-attuned family-work trajectories, we investigated how Chinese older adults' family-work history (age 18-50) related to their cognition measured by immediate word recall (0-10) and mental status scores (0-11) cross-sectionally (pairwise comparison) and longitudinally (linear mixed-effects models). We found that older adults in the "early marriage, ≥ 2 children, agriculturally employed" trajectory had lowest baseline immediate recall and mental status scores compared with whom slower declines in immediate recall rather than mental status were found for those in "late marriage, ≥ 2 children, agriculturally employed (b = 0.02, 95% confidence interval (CI): 0.00, 0.03)", "married, ≥ 2 children, not in labour force (mainly early retirees, b = 0.04, 95% CI: 0.01, 0.06)", and "married, ≥ 2 children, non-agriculturally employed in public sector (b = 0.04, 95% CI: 0.03, 0.06)" trajectories. Our findings imply that inequalities in China's pre-1964 birth cohorts' cognition were affected by marriage timing and, to a greater extent, driven by midlife employment sectors. Encouraging social engagement and improving social welfare may support cognitively disadvantaged older adults.

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Reproductive Histories and Biomarker-Based Health Outcomes in Indian Women: A Life Course Approach
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Over the past few decades, life expectancy has expanded enormously across the globe, particularly for women. With high life expectancies, women now spend nearly a third of their lives in menopause. Women's reproductive histories, including factors such as age at first pregnancy, number of pregnancies, breastfeeding duration, and pregnancy outcomes, have been increasingly recognized as important determinants of long-term health. We know very little, in contrast, about how these reproductive lifecycle events impact middle-aged women's health in Asia. This paper attempts to bridge this gap by looking at the most populous country: India. This study will investigate these relationships using data from the National Family Health Survey and employs regression modelling and age-period-cohort (APC) analysis to assess how reproductive histories impact biomarkers such as blood glucose, blood pressure, hemoglobin, and body mass index (BMI).

Expected results suggest that higher parity may be associated with an increased risk of diabetes and hypertension, while longer durations of breastfeeding could be linked to a lower prevalence of diabetes. Additionally, women with a history of miscarriage or stillbirth may exhibit poorer cardiometabolic profiles compared to those without such histories. The study also examines how these relationships vary across birth cohorts, considering the role of socioeconomic factors in modifying these associations.

By integrating biomarker-based assessments with demographic approaches, this study offers new insights into how reproductive experiences influence long-term health. As women live longer, understanding the cumulative impact of reproductive events on ageing trajectories becomes critical to improving health outcomes in later life.

Early life exposure to the 1958-61 Great Leap Forward and Famine in China and the long-term health consequences in middle- and later-life: is there any selection bias?

Zongpu Yue - UCL, Stephen Jivraj - UCL, Emily Murray - University of Essex

The 1958–61 Great Leap Forward movement (GLF) and subsequent famine stands out as the worst in human history, with approximately 15–30 million excess deaths and about 30 million lost or postponed births. However, very few scholars have touched on the long-term health consequences. This study employs a difference-in-difference estimator to identify the effects of childhood exposure to the GLF on frailty index (FI) in middle- and later-life, taking into account temporal and geographic variations in the GLF severity under the consideration of regional fixed-effect and selection biases. Using data on 22,979 respondents from China Health and Retirement Longitudinal Study, five birth cohorts based on the life stages during the GLF are identified. The results show that each additional unit increase in the GLF severity results a higher FI by 0.017 (p=0.071, 95%CI: -0.001, 0.035) and 0.021 (p=0.112, 95%CI: -0.006, 0.048) among individuals experienced the GLF at ages 0-3 and 4-11, respectively. Conversely, almost no health effect (0.005, p=0.780, 95%CI: -0.032, 0.042) is observed in individuals who experienced the GLF at ages 12-17, and a "protective effect" (-0.027, p=0.269, 95%CI: -0.078, 0.023) of the GLF for individuals who experienced it in adulthood is found due to the mortality selection bias. Gender differences further reveal that the positive selection biases are greater among women aged 12 and older, obscuring the adverse impact of the GLF exposure on health, while the GLF negatively affect men's health across all life stages. The findings strongly suggest welfare policies should be formulated for people experienced this tragedy, and efforts to reduce childhood adverse experiences should be undertaken.

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Social stratification, migration, health inequality in China: An intersectional lifecourse approach

Nan Zhang - University of Manchester

Migration is as old as humankind and forms an integral part of many older people's lives coinciding with modernisation and globalisation processes. Health and well-being in later life are strongly determined by what comes earlier in life including migration and migration can be one of the life-changing decisions in both physical and social environments, which forms an important turning point in one's life course. In the Chinese context characterised with rapid population ageing and urbanisation, living in urban areas with an urban Hukou is associated with socioeconomic advantage. However, little is known about how social stratification (rural or urban origin) and urbanisation intersect to shape health trajectories across life stages, especially in late life. Using data from a nationally representative ageing study—China Health and Retirement Longitudinal Study (CHARLS) and advanced statistics (sequence analysis and latent growth curve modelling), this study investigates how migration (rural-urban residential and social migration such as in-situ urbanisation) over the life course in China is associated with a range of health-related outcomes over time. Findings suggest that lifelong urban residents enjoy persistent health advantages, while lifelong rural residents consistently experience poorer health outcomes. Despite an initial advantage, individuals who achieve upward social mobility (through both rural-to-urban hukou conversion or residential migration) exhibit a steeper decline in health over time. Rural-to-urban migrant workers in their 20s begin with a health disadvantage and experience a rapid decline as they age. Earlier in-situ urbanisation appears to have greater health benefits compared to later transitions as they age.

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