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The Influence of Health in Early Adulthood on Male Fertility

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Abstract

Background. Health and health behaviors have been associated with fertility. However, previous research suffers from data limitations (e.g. small samples, response bias, unobserved confounding) which we are able to address with population data and sibling comparison models.

Objectives. We examine the relationship between health-related measures in early adulthood and fertility by age 40 amongst men in Sweden.

Data and methods. We use Swedish register data on men born 1965-1972 (N=405,427) to examine the relationship between fertility by age 40 and BMI, physical fitness, weight, and height. The health-related measures were collected during military conscription tests conducted when the men were aged 17 to 20 years. We used OLS to study number of children by age 40 and linear probability models for parity transitions within the full population. Additionally, we applied sibling fixed effects models (75,378 brothers within 36,383 families) to examine whether the health differences were driven by shared social background factors. We adjusted for birth order, family size, cohort, and completed educational attainment in our analyses.

Results. For physical fitness, height, and weight, we found a positive relationship with number of children. For BMI, men in the normal category had more children by age 40 than those who were underweight, overweight, or obese. Men who were underweight, obese, the least fit, and the shortest were far more likely to be childless. The magnitude of the effect was large; for example, obese men had a relative probability of being childless 100% higher than normal BMI men. These results persisted when we compared brothers to one another in the sibling fixed effects model.

Main conclusions. Overall we find a clear positive relationship between fertility and physical fitness, height, weight, and having a normal body mass index. Shared social background factors do not explain this relationship.