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Your Parents' Wealth is more Important than their Education for Your Later Health and Wellbeing: Evidence from the Tromsø Study.

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INTRODUCTION: Little evidence is available about the unique effect of different SES markers in childhood on subjective measures of health and life satisfaction in adulthood.

METHODS: The Tromsø Study is a prospective cohort study of the general population in the municipality of Tromsø. With more than 70,000 inhabitants, Tromsø is the largest city in Northern Norway. It is situated at 69 N, ∼400km north of the Arctic Circle. Between 1974 and 2007/8, six waves of the Tromsø Study have been conducted (referred to as Tromsø I-VI). The current research is based on data from the latest wave: 19,762 subjects were invited, and 12,984 (65.7%) attended – 6,054 men and 6,930 women, born between 1920–1977. The aim was to assess the unique effect of three indicators of childhood socio-economic status (CSES), childhood financial conditions, mothers' education and fathers' education on the EQ-5D health dimensions (mobility, self-care, usual activities, pain and discomfort, anxiety and depression), self-rated health, age-comparative self-rated health, and satisfaction with life. We observed interaction ($P < 0.05$) between CSES indicators and the respondents education when regressed on subjective health measures therefore the data was analyzed with a counterfactual-based mediation analysis using Stata command Paramed as it allows exposure-mediator interaction. Logistic regression was used for the mediator (own education). Log-linear regression was used for the health and life satisfaction outcomes to estimate the natural direct effects (NDE), natural indirect effects (NIE) and marginal total effects (MTE) as risk ratios (RR). Statistically significant interaction ($p < 0.05$) was observed between the CSES exposures and gender, regressed on the health and wellbeing outcomes, therefore the analysis was conducted separately for men and women.

RESULTS: Independent of respondents education, childhood financial conditions was associated (NDE) with all EQ-5D dimensions, self-rated health, age-comparative self-rated health, and satisfaction with life. The RRs were not the same for men and women. Men had a higher risk of being unhealthy on the composite EQ-5D measure (RR: 1.22, CI 1.14–1.31), and the anxiety/depression dimension (RR: 1.88, CI 1.57–2.26), but women had a higher risk of being unhealthy on the dimensions self-care (RR: 1.91, CI 1.23–2.97), usual activities(RR: 1.68, CI 1.46–1.94), pain/discomfort(RR: 1.13, CI 1.07–1.21), as well as on SRH(RR: 1.46, CI 1.32–1.61). Childhood financial conditions had no statistically ($P > 0.05$) significant NIE mediated by respondents' education, on any health measure. The magnitude of the estimate of NIE was 1.00, though not statistically significant ($P > 0.05$). While almost all NDEs of parental education on health outcomes were not statistically significant ($P > 0.05$), most of the NIEs of parental education were statistically significant ($P < 0.05$). The exceptions were the increased risk (NDEs) of being unhealthy on the composite EQ-5D measure(RR: 1.10, CI 1.02–1.19), pain/discomfort(RR: 1.12, CI 1.03–1.22), and anxiety/depression(RR: 1.38, CI 1.13–1.69), from having low mothers' education among women.

CONCLUSIONS: Our results show that childhood financial conditions have a strong direct effect on later health and wellbeing, independent of respondents' education, while generally speaking parental education has an indirect effect on later health mediated by respondents' education. This indicates that effect of childhood financial conditions on later health and wellbeing is long-term and that there may be other pathways from childhood financial conditions to health, than respondents' education. However, the effect of parental education on later health is not independent of the respondents' education.