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Does higher education protect against obesity? Evidence using Mendelian randomization

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**UNMARKED VERSION**

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**Abstract**

*Objectives.* The aim of this explorative study was to examine the effect of education on obesity using Mendelian randomization.

*Methods.* Participants (N=2011) were from the on-going nationally representative Young Finns Study (YFS) that began in 1980 when six cohorts (aged 30, 33, 36, 39, 42 and 45 in 2007) were recruited. The average value of BMI (KG/M<sup>2</sup>) measurements in 2007 and 2011 and genetic information were linked to comprehensive register-based information on the years of education in 2007. We first used a linear regression (Ordinary Least Squares, OLS) to estimate the relationship between education and BMI. To identify a causal relationship, we exploited Mendelian randomization and used a genetic score as an instrument for education. The genetic score was based on 74 genetic variants that genome-wide

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