Carpe Diem or Seize your Health?
The Economics of Time Preferences, Health, and Education

Lisa Norrgren

ACADEMIC THESIS

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Department of Economics, Vasagatan 1

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Abstracts

Chapter 1. Time Preferences, Illness, and Death

This paper investigates the predictive power of time preferences on the risk of early mortality and illness in adulthood. Using a unique Swedish cohort of 12,956 individuals born in 1953, interviewed in 1966, and followed with register data up to 2018, the paper finds that patient adolescents are 17–21% less likely to die before age 65. Patient adolescents have fewer hospitalizations and diagnoses in their adult life and are less likely to be diagnosed with conditions associated with lifestyle risk factors. Patient adolescents are also more in favour of sports activities and school rules on smoking. The investigated channels for the relationship between time preferences and future health include lifestyle, mother's time preferences, and the adolescents' education attainment and future income. Controlling for education and income reduces the coefficient for time preferences on early mortality by one-fourth.

Keywords: time preference, early mortality, long term health, illness, behaviour, lifestyle
JEL codes: D90, D91, I10, I12

Chapter 2. Time Preferences and Medication Adherence: A Field Experiment with Pregnant Women in South Africa

The effectiveness of health recommendations and treatment plans depends on the extent to which individuals follow them. For the individual, medication adherence involves an inter-temporal trade-off between expected future health benefits and immediate effort costs. Therefore, examining time preferences may help us to understand why some people fail to follow health recommendations and treatment plans. In this paper, we use a simple, real-effort task implemented via text message to elicit the time preferences of pregnant women in South Africa. We find evidence that high discounters are significantly less likely to report to adhere to the recommendation of taking daily iron supplements daily during pregnancy. There is some indication that time-inconsistency also negatively affects adherence. Together our results suggest that measuring time preferences could help predict medication adherence and thus be used to improve preventive health care measures.

Keywords: time preferences, medication adherence, field experiment
JEL codes: C93, D91, I12

Chapter 3. Can Mothers' Time Preferences Predict Children's Educational Outcomes?

This paper is the first to study if parents' time preferences are associated with adolescents' future educational outcomes. We combine time preferences data on mothers and their adolescents, measured in 1968 and 1966, with register data on education and labour outcomes up to 2015. The results show that children of patient mothers have higher grades, are more likely to be enrolled in an academic elementary school track, and are more likely to attain post-secondary education. Yet, we find no significant association between mothers' time preferences and adolescents' completion of upper secondary school or the likelihood to be enrolled in a theoretical upper secondary program. The unique Swedish data also allow us to shed some light on potential mechanisms. We find evidence of intergenerational transmission of preferences for both time and education, as well as a strong correlation between mothers' time preferences and whether their adolescent children apply for further education after year 9 of elementary school.

Keywords: time preferences, inter-generational preferences, educational investments
JEL codes: I20, I21, D10, D15, D91

Chapter 4. The highly educated live longer. The role of time preference, cognitive ability, and educational plans.

Using Swedish data on a cohort born in 1953, interviewed in 1966 (age 13), and followed with register data until 2018 (age 65), this study shows that one more year of schooling predicts a 17% lower risk of early mortality. Addressing concerns of potential selection bias, the mortality inequality by educational attainment persists when extensive controls are included in the regression. Adding information on background health, gender, socioeconomic variables, as well as adolescents' early educational plans, cognitive ability, and time preferences, only results in a 2-percentage point change in the mortality risk by years of education. Even when adolescents' applications to upper secondary school and year 6 and 9 grades are controlled for, completion of upper secondary and university education remain strong predictors of future health. Yet, the study also finds that the measure of future health matters for the stability of the results.

Keywords: mortality, future health, education, educational plans, time preferences, cognitive ability
JEL codes: D91, I14, I20, I21

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Contact Information: Lisa Norrgren, Department of economics, University of Gothenburg, Vasagatan 1, room E501.
Email: lisa.norrgren@economics.gu.se