

Parental Health and Time Investments in Children

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Resources and the time devoted by parents to caring for their children are important to the development of human capital. This paper investigates the effect of an adverse health event experienced by a parent on their time spent on their children. A variety of health conditions, including severe conditions (cancer, lung disease, heart attack or disease, and stroke), mild conditions (arthritis, asthma, diabetes, and high blood pressure), and psychological issues (emotional problem, nervous problem, psychiatric problem, and permanent loss of memory or mental ability) are used for our empirical analyses. Our measures of parental time spent with their children include time spent with their children on educational (homework) and recreational (board games, sports, video games, and arts and crafts) activities.

Becker's (1965) time allocation model is the primary conceptual framework to examine people's use of market and non-market time. In this model, an individual derives satisfaction from home-produced goods such as children's skill development or well-being. The production of these outcomes requires financial resources to consume goods and services, and time investments in children. Thus, parental health adversities have consequences not just for own well-being but also for the well-being of family members. On one hand, health misfortunes may influence market behavior through two channels - market productivity and labor hours. These altered labor outcomes shift a family's monetary budget constraint and limit parental investments in children. On the other hand, parental health adversities may provide an opportunity for parents to spend more time with children because they cut back their labor supply to the market. Therefore, it is an unsettled question as to how and an adverse health event of parents affects the time children spend with their parents. A large number of studies demonstrate the harmful effect of an adverse health event on earnings (Chatterji, Alegria, and Takeuchi, 2011; Garcia-Gomez and Lopez-Nicolas, 2006; Garcia-Gomez et al., 2013) and examined the negative relationship this may have with child outcomes (Morefield 2010). However, none of these studies investigate the effect of parental health status on the time they devote to childcare. This study fills in this research gap.

We use two waves of panel data for the years 2003 and 2007, from the Panel Study of Income Dynamics (PSID). The PSID provides detailed information on health events biannually starting from 1999, and it conducted the Child Development Supplement (CDS) in 1997, 2002/2003, and 2007. To investigate the relationship between parental health and parental time allocated to children, our main independent variable takes the value of one if an individual is suffering from illness and zero otherwise. Our measure of childcare activities is defined to include educating and playing (board games, sports, video games, and arts and crafts). Primary caregivers were asked to indicate how often they participate in activities across a month's time (1 = not in the past month and 5 = every day). We control for observable parental traits (e.g., age, race, years of education, employment status, and marital status), child demographic factors (i.e., gender and birth order), and household characteristics such as family size, family income, homeownership, and urban residence. We include year fixed effects.

We find that a mother's psychological problems are negatively correlated with time to childcare at the one percent significance level. Future research that accounts for the within-mother's variation in their health condition may shed light on why a mother's non-physical issues are more likely to associate with time investment in children.

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References

- Becker, G. S. (1965). A Theory of the Allocation of Time. *The economic journal*, 493-517.
- Chatterji, P., Alegria, M., & Takeuchi, D. (2011). Psychiatric disorders and labor market outcomes: Evidence from the National Comorbidity Survey-Replication. *Journal of health economics*, 30(5), 858-868.
- García Gómez, P., & López Nicolás, Á. (2006). Health shocks, employment, and income in the Spanish labour market. *Health economics*, 15(9), 997-1009.
- García-Gómez, P., Van Kippersluis, H., O'Donnell, O., & Van Doorslaer, E. (2013). Long-term and spillover effects of health shocks on employment and income. *Journal of Human Resources*, 48(4), 873-909.
- Morefield, B. (2010). Parental health events and children's skill development. *University of North Carolina at Greensboro-Department of Economics Working Papers*, 10-11.