

Parental Health, Child Labor and Schooling Outcomes

Shamma Adeeb Alam

University of Washington - Seattle

Abstract

This study examines the influence of parents' health on children's labor and schooling outcomes. Employing longitudinal data from Tanzania, this study finds that sickness of parents lead to increased hours of child labor. Parents' sickness also causes previously unemployed children to be forced into child labor. This increased child labor then leads to fewer school enrollment. I find that the effect on child labor and school enrollment is especially higher when single-mothers are sick. Furthermore, fathers' illness lead to greater child labor in farm work, while sickness of mothers or both the parents lead to greater child labor related to housework. There is also a gender-gap in labor as the increase in housework is mainly true for girls rather than boys. However, there is no gender gap in the increased hours spent at the farm. Also, older children are likely to work more in the farm. The paper concludes with policy implications.

Extended Abstract

Child labor continues to be a serious problem in developing countries. It is estimated that there are still over 200 million children laborers worldwide (ILO, 2010). An important consequence of increased child labor is reduction in children's schooling. Edmonds (2005) summarizes many factors that affect child labor and educational outcomes. Although prior research examines many factors that affect child labor and educational outcomes (Edmonds, 2005), the effect of parental illness have received very little empirical attention. However, it is important to understand this relationship because (i) there is the possibility that adult and parental illness may drastically increase children labor and reduce schooling; (ii) the relationship can help us understand if households increase child labor to mitigate the effect of these adult health shocks.

This study examines the influence of parents' health on children's labor and schooling outcomes. Employing longitudinal data from Tanzania, this is the first study to show that illness of fathers and mothers lead to increased hours of child labor and also more children being exposed to child labor. Consequently, I find the increased child labor leads to reduced school enrollment. These effects are especially higher when single-mothers are ill. However we find no impact on child labor or school enrollment when other adults, such as siblings, grandparents, uncles and aunts of the child, are ill. Furthermore, this study shows evidence that parental illness leads to greater gender gap in housework as girls work more than boys. However, there is no gender gap in the increase in farm work. Additionally, children's farm work increases when only fathers are ill and housework increases when only mothers or both the parents are ill at the same time. We use a child-level fixed effects model to control for household preferences or birth order effects.

This paper makes three contributions to the literature. First, it contributes to the child labor literature as it shows that parental illness is a significant determinant of child labor. Although prior studies have shown that numerous factors affect child labor (Edmonds, 2005), there is only limited evidence on the effect of parental health on child labor. Dillon (2008) finds that only illness of mothers in Mali increases child labor. However, as his study is based on cross-sectional data, it does not control for time-invariant child or household level heterogeneity that can bias results.¹

Second, this study contributes to the education literature as it demonstrates that parental illness lead to lesser school enrollment. The only prior study having examined this relationship is

¹ Certain inherent characteristics can cause households are likely to have more sick people and also more child labor. If we do not control for unobservable household characteristics, it will lead to a biased result.

Sun and Yao (2010). They find that illness of parents causes reduced enrollment and completion of middle school. However, their study is based on retrospective survey that asks households to recall illness and health expenditure in the prior 15 years, which may lead to reporting errors arising from such long recall periods.² Sun and Yao (2010) also does not address potential endogeneity issues as it does not control for household and child's unobserved characteristics. I employ child fixed effects model to address the unobserved heterogeneity and endogeneity issues.

Third, my findings contribute to the consumption smoothing literature and permanent income hypothesis. This literature states that households use savings and borrowing to adjust their consumption during economic booms and busts. Several studies (Beegle et al, 2006; Duryea et al, 2007; Guarcello et al, 2010; Janvry et al., 2006) demonstrate that households increase child labor to smoothen their consumption during income shocks (i.e. sudden loss of income). Child labor may also be used to smoothen household consumption during adult illness. Adult illness affects household budgets in two ways: greater health care expenditure and reduced income through forgone labor hours. Households can cope with these shocks (i.e. illness) using savings, credits or buffer stock of assets. However, if households lack buffer stock or are credit constrained, they are likely to resort to increased child labor to cope with adult illness.

Data

This study uses a panel data survey, named Kagera Health and Development Survey (KHDS), from the Kagera region in Tanzania. The survey is conducted by the World Bank and

² Errors may occur as respondents may forget some illnesses in the last 15 years or may not recall the precise time of the sickness. The study focuses only on major health shocks. However, smaller health shocks can also have a significant effect on education as shown by my study.

the University of Dar es Salaam in four rounds from 1991 through 1994. It surveyed over 800 households, drawn from 51 communities (49 villages) in the six districts of Kagera. The average interval between each of the survey rounds was between six and seven months. The sample selection was based on a variable probability sampling procedure (a two-stage, randomized stratified procedure) based on expected mortality.³

The data contain detailed information on individual and household level demographic and socioeconomic characteristics, which makes it suitable for this study. It contains data on child's age, education and enrollment status. It also provides detailed data on value of household asset holdings, which include business equipment, durable goods, land, livestock and personal savings. Additionally, the survey provides detailed time use data in the past seven days of all household members aged 7 and above, hence allowing us to find the number of hours worked by children. Furthermore, household members were asked to report any illness that they have suffered in the past 4 weeks. They were further asked about the number of days of work, if any, that they have missed because of their illness. As there can be a huge variation in the severity of illness, I only consider an individual to be ill, if they have missed at least a day's worth of work. Using this data on illness of all adult household members aged 18 and above, I find its effect on child labor and education of children between the age of 7 and 15.

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³ For further details on the sample selection, please refer to World Bank (2004).

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