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Child Health and Family Income

Physical and Psychosocial Health

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Child Health and Family Income: Physical and Psychosocial Health.*

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Abstract

This paper contributes to the important policy related literature on income and health by providing a detailed investigation of the family income/child health relationship using matched parent–child survey data from the Swedish Survey of Living Conditions (ULF). This study differs from previous work in the field in a number of respects. First, we focus on both physical as well as on the psychosocial health of the child. Second, we focus on the parent's socioeconomic background as well as on the liquidity constraint problems the household faces. We find little evidence of an income gradient or effect on children's physical and psychosocial health. However, our study suggests that the occurrence of liquidity constraints in the household increases the likelihood of the child having a lower psychosocial health status.

Sammanfattning

Denna studie bidrar till den viktiga policyrelaterade litteraturen på inkomst och hälsa genom att ge en grundlig genomgång av relationen mellan familjeinkomst och barnhälsa med hjälp av matchad förälder/barn undersökningar baserad på Undersökningarna av levnads- förhållanden (ULF). Studien skiljer sig från den tidigare litteraturen på två sätt. Dels fokuserar den på både fysisk och psychosocial hälsa. Dels fokuserar den på både hushållens socioekonomiska bakgrund samt på likviditets problem som hushållen möter. Studien finner lite bevis för en inkomsteffekt på barns fysiska eller psychosociala hälsa. Emellertid visar studien på att förekomsten as likviditetsproblem i hushållet ökar sannolikheten att barnen har lägre psychosocial hälsa.

Keywords: child health, income gradient, liquidity constraint and psychosocial health

JEL Codes: I12, I30

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1 Introduction

The relationship between socioeconomic status and health has been widely documented and the large majority of evidence in the literature points at a positive relationship between socioeconomic status and health. The difficulty however remains in determining the causal direction of the relationship. One way to get about this causality issue, and assess the effect of income on health is to study the relationship between family income and child health, since the channel that runs from health to income can be eliminate - or at least limited. Especially in Sweden today, children do not directly contribute to family income, so any positive correlation between poor health in childhood and low earnings can not be explained by lower earnings of children. Although it is to be noted that the prevalence of sickness among children could reduce parental labour supply and thus household income. Parents in Sweden are however to a high degree compensated for the income loss incurred during temporary care of sick children.

The relationship between earnings and child health is especially important to study as it has been shown that poor health in childhood - both in terms of physical and psychosocial health - is associated with lower educational attainment, worse health and inferior labour market outcomes in adulthood.

This paper's contribution to the literature is to assess the health income gradient in Sweden, focusing on both physical and psychosocial health aspects. We focus on the parent's socioeconomic background as well as on the liquidity constraint problems the household faces. That socioeconomic background is a determinant of health outcomes is well documented in the literature. Parents facing liquidity constraints, irrespective of socioeconomic background, may be prevented from making optimal investments in the human capital of their children, in terms of taking time off to get medical care, staying at home to take care of children who become ill, offering good quality health care etc. Liquidity constraints could also have other negative externalities, such as leading to stress and conflict among parents, which in turn may have an impact on the children's psychosocial health. Sweden has since the 1990's passed through a difficult economic transition with increased unemployment, particularly among young adults, increasing housing segregation and growing inequalities in income among households with children. Meanwhile, the share of Swedish schoolchildren reporting psychosomatic and psychological symptoms in classroom surveys has increased in recent decades, as reported in Janson (2001).

This study is based on the Swedish Survey of Living Conditions (ULF), which is a yearly survey data base consisting of 6000 households to which register data is linked. The ULF survey enables us to look at the income

gradient, both regarding physical and psychosocial health. Using the early survey years from 1988-89 and 1996-97 we shed light on the relationship between income and health based on parental assessment of child health with focus on physical health. These periods are of special interest to study given that the health care sector has been undergoing several reforms between these periods, potentially affecting children's use of health services and children's health. Data from the 2001-2003 years surveys is used to investigate the income health gradient focusing on psychosocial health of children, based both on children's own health assessment as well as parental assessment. It is of particular value to have children's direct opinion on their health status given that we are dealing with subjective health measures.

We find little evidence of an income gradient or liquidity constraint effect on children's physical health. We do however find evidence, in the 1988-1989 surveys, that higher income households use medical services more often despite the fact that they are not more affected by illness, and that the likelihood of staying at home for care of sick children, in the 1996-1997 surveys increases with household income. Regarding psychosocial health, based on the survey years 2001-2003, our study suggests that household income seldom affects the psychosocial health of children, whereas the occurrence of liquidity constraints in the household increases the likelihood of the child having a lower psychosocial health status. Based on self-assessed schooling outcome measures, we further verify that psychosocial health is positively associated with human capital accumulation.

The rest of the paper is set up as follows. Section 2 presents a brief overview of the literature on income and health. Section 3 describes the data. Section 4 gives an overview of the Swedish health system, followed by a presentation of the empirical models and results in Section 5. Section 6 provides a concluding discussion.

2 Relationship between income and health

Recent studies have tried to shed light on the relationship between parental socioeconomic status and child health. Based on data from the US National Health Interview Survey, Case et al. (2002), find robust evidence of a significant positive income gradient. They find children in poorer households to have significantly worse health than children from richer families. They also find that the income gradient in child health increased with child age, that children's health is closely associated with long run average household income and that the adverse health effect lowers permanent income over children's lives.

Currie J. and Stabile (2003) did a similar study on Canadian data, and found evidence of a positive income gradient as well, increasing with child age, which they attributed to the fact that low income children are subject to more health shocks than high income children. In a related UK study, Currie A. et al. (2006) find robust evidence of a significant family income gradient in child health using a subjective general health status measure, but find no evidence of a gradient when looking at objective health measures. When significant, they find the size of the gradient to be considerably smaller than that found in the US, and no evidence that it increases with age. They also provide evidence that nutrition and family lifestyle choices have an important role in determining child health.

Palme and Sandgren (2004) find an inverse relationship between parental economic resources and mortality among elderly based on Swedish cohort born in 1928. The effect holds even when controlling for the individual's lifetime earnings.

There is a large literature giving evidence that health in childhood, on the one hand has a direct impact on health in adulthood, and on the other hand affects socioeconomic status in adulthood through other mechanisms. Marmot and Wadsworth (1997) survey the literature presenting evidence of a direct link between child health and health outcomes in adulthood. Another strand in the literature points at poor health in childhood affecting adult well-being through its impact on educational attainment and overall human capital accumulation. See Grossman and Kaestner (1997) for an overview of the literature, and Currie (2005) for a summary of the literature linking child health to cognitive deficits.

Poor psychosocial health in childhood has also been shown to predict poor psychosocial health in adulthood as well as having negative effects on school achievement and thus human capital accumulation and future labour market outcome for the individual. Egle et al. (2002) present an overview of the research showing that early biological and psychological stress in childhood is associated with long-term vulnerability to various mental and physical diseases.

Children's behavioural or psychosocial health problems are usually classified in two main dimensions: externalizing and internalizing problems. Externalizing problems are characterized by behaviours that are harmful to others or disruptive, whereas internalizing problems are characterized by self-punitive emotions and moods including somatic complaints. Campell (1991) and Fergusson and Horwood (1998) have shown externalizing disorders to be highly stable over time, whereas evidence regarding the persistence of internalizing problems is less consistent.

McLelland et al. (2000) point at evidence that children with behaviour problems attain low school achievement, especially in the case of externalizing behaviour which also has been associated with long term negative outcomes such as school failure and adult criminality. They also point out that socio-emotional and behavioural problems are related to poor work-skills which in turn predict lower academic achievement. Several studies have shown that children who show signs of serious conduct problems in primary school are less likely to gain formal education, more likely to be excluded from school and receive a criminal conviction in their adolescent and adult years. There is evidence that persistent antisocial behavioural problems in childhood may lead to significantly lower income from employment in early adulthood, due largely to lower rates of workforce participation, which in turn affect future employment prospects and reinforce existing criminal tendencies.

Mental ill health has in recent Swedish public health reports been described as one of the biggest public health threats among the adult population. The largest increase in this respect has taken place among the young adult population. Danielson and Marklund (2000); Berntsson and Köhler (2001) are some of the studies which have indicated an increase in the share of schoolchildren's with psychosocial health problems in Sweden.

Studying the socio economic determinants of school aged children's psychosomatic health in Sweden, Östberg (2001) finds social class not to have a significant impact on children's psychosomatic wellbeing. She however finds financial hardship in the household to be a determinant of psychosomatic ill health among children.

3 Data

The empirical analysis is based on data from respondents in the Swedish Survey of Living Conditions (ULF) supplemented with register data providing income and education related information. The ULF is an annual cross-sectional study carried out by Statistics Sweden, employing face-to-face interviews with a random sample, representative of the Swedish population aged 16 years and over. ULF surveys have been conducted yearly from 1981 onwards. From 1988 onwards the survey consists of a rotating panel with approximately half of the households interviewed every eight years. Typically two consecutive years have a specific theme. In the surveys of 1988-1989, 1996-1997, and 2001-2002 the respondents are asked health-related questions about children currently living in the household. The questions vary over the years and over the age groups of the children. In 2001 and 2002 the children living in the household are interviewed

personally and asked questions relating to social activity and health - mostly focusing on issues relating to psychological health - as well as schooling outcome. Approximately a total of 6000 households are interviewed yearly, out of which about 40 % have children currently residing in the household and more than 30% have more than one child in the household. Although there is limited information on earlier year's economic situation of the household, for part of the sample we have information from the last time they were in the survey, 8 years back. See Table 1 below for an overview of the data.

Table 1: Descriptive statistics, sample size

	Year						
	1988	1989	1996	1997	2001	2002	2003
# of households with children	1317	1427	1398	1399	1671	1739	1624
# of children	2906	2966	2925	2950	3187	3244	2983
Share of children with household info from previous survey – 8 years back			42% (year 1988)	44% (year 1989)	45% (year 1993)	44% (year 1994)	42% (year 1995)
# of children in child survey aged 10-18					1416	1393	1234

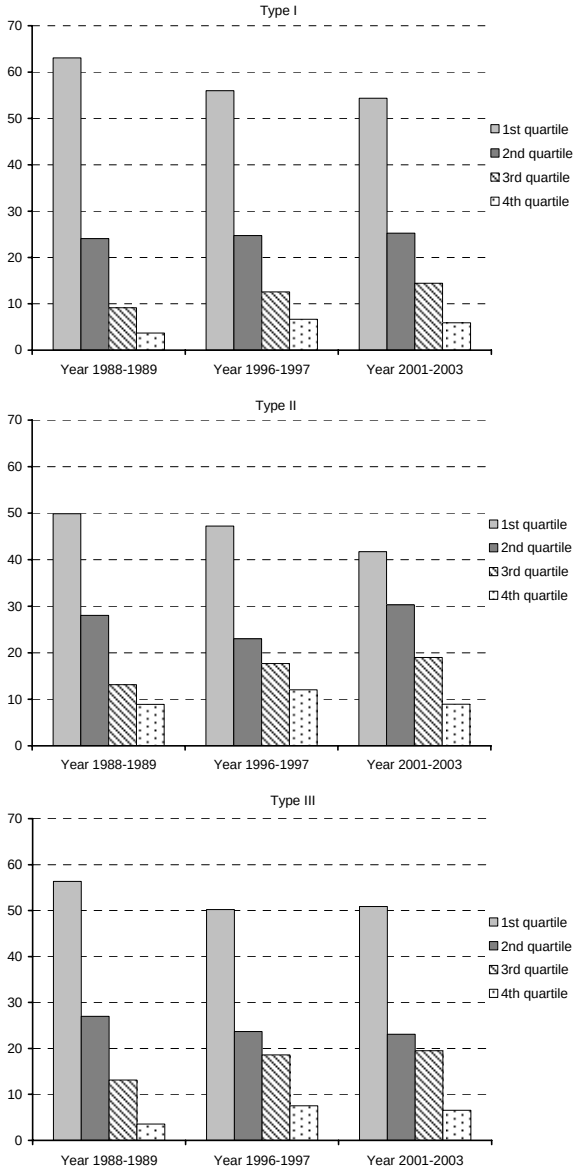
The question may be raised whether the results are biased due to non-response, non-response being higher in lower socioeconomic groups (See SOU 2001:55 report). An equally important issue is that of the accuracy of parental reports and the accuracy of children's self-assessment in schooling outcome. Studies have shown that this accuracy tends to depend on the recentness and seriousness of an event. Pless et al. (1995) studied the accuracy of parent recall compared with paediatrician records and found it not to be related to demographics such as the respondent's age and education. Similar studies undertaken by Rajmil et al. (1999) and Suarez et al. (1997) also support this finding.

Socioeconomic variables used in this study are: net household income, education level of parents, indicator of single parent household, indicator of foreign born parent as well as employment status. We also use survey information on whether the households have faced liquidity problems. Three types of liquidity constraint measures are available. The first refers to whether or not the respondent can get hold of SEK 14000 within a week if needed, either by turning to personal savings or by other means. The second and third measures refer to whether or not the respondent has had difficulties in actually paying bills the past 12 months, and whether or not the respondent has had to borrow money from friends, relatives or needed to request help from the social assistance to pay bills the past 12 months respectively.

Given that we are interested in accounting for financial stress or hardship in the household, any of the above measures are relevant. However, the first measure refers to a hypothetical situation and need not reflect existing financial hardship. Nevertheless, it gives a hint of the financial situation of the household and whether it has access to a financial buffer or safety net. The two remaining measures are more direct measures of actual financial stress. The third measure may be regarded as a tighter liquidity constraint compared to the second since the liquidity constraint is actually binding. We therefore focus on the third measure, and present the results for the two other measures in the appendix. The main results are however qualitatively robust to the choice of measure of liquidity constraint studied.

An overview of the data, presented in Figure 1, shows that liquidity constraint problems is to a large extent concentrated among the lower income and single-parent households. Irrespective of the years studied, half of the households who have a liquidity constraint problem belong to the lowest quartile, and only between 15-30 % of the households who have a liquidity constraint belong to the two highest income quartiles. The share of liquidity constrained households who belong to higher income quartiles increases somewhat with the severity of the liquidity constraint problem. Similarly, as shown in Table 2, even though the majority of the households who have a liquidity constraint are two-parent households, one-parent households are 2 to 4 times more likely to state that they have a liquidity constraint compared to two-parent households depending on the severity of the liquidity constraint. Figure 2 shows a 70 to 100% increase in the share of liquidity constrained households between the 1988-1989 and the 1996-1996 surveys which can be attributed to the aftermaths of the economic downturn in the Swedish economy in the early 1990s.

Figure 1: Share of liquidity constrained households in income quartile groups



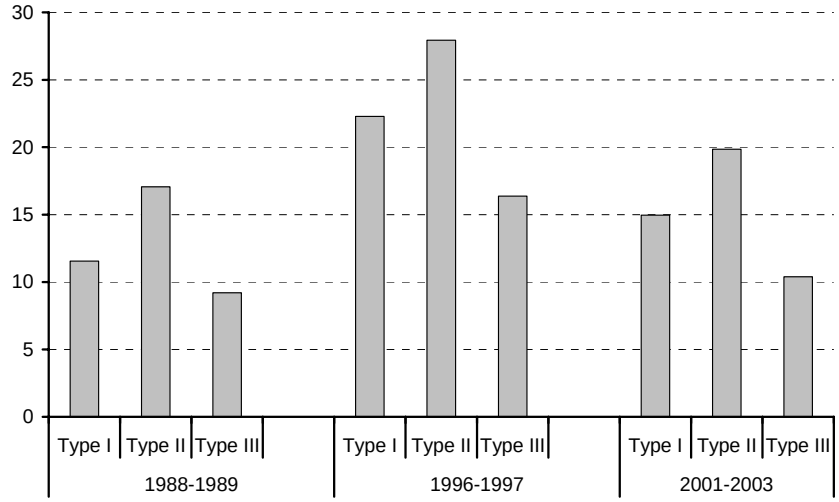
Note: The staples should be interpreted as follows: for liquidity constraint type III in the 2001-2003 survey, 51% of households with liquidity constraint type III belong to the lowest income quartile, followed by 22% in the 2nd quartile, 20 % in the third and 7% in the fourth quartile. The sum of staples equals one.

Table 2: Share of household with liquidity problem by household type

	1988-1989		1996-1997		2001-2003	
	Single parent household	2 parent household	Single parent household	2 parent household	Single parent household	2 parent household
type I	32,6	7,5	49,5	19,6	36,7	12,2
type II	54,1	14.9	53,8	25,4	48,1	16.3
type III	35,8	9,3	42,6	13,8	33,71	7,4

Note: The table should be interpreted as follows: in the 1988-89 surveys, 32.6% (7.5 %) of single parent households (two parent households) are type I liquidity constrained

Figure 2. Share of households with liquidity constraint problem, by type and year



Note: Liquidity constraint, type I = 1 if the respondent states that he/she can not get hold of SEK 14000 within a week if needed, = 0 otherwise; liquidity constraint, type II = 1 if the respondent states that he/she has had difficulties paying bills the past 12 months, = 0 otherwise; liquidity constraint, type III = 1 if the respondent states that he/she has had to borrow money to pay bills the past 12 months, = 0 otherwise

4 The Swedish health system

The health services in Sweden, as in the other Nordic countries, are tax-financed, universal and comprehensive. Since 1981, the provision and financing of health services is a public sector responsibility, which rests primarily with the county councils, who operate almost all health services and levy taxes to finance them, although some health services may be privately provided.

Patients pay flat rate fees for most health services at rates determined by the county councils. A high-cost protection scheme limits personal expenses related to both health care services and prescription drugs. Several reforms have taken place within the Swedish health system during the 1980s and 1990s, offering an exogenous variation when studying socio economic determinants of children's health during these two decades.

Between 1981 and 1991 the high cost protection scheme was based on the number of doctor visits or purchase of prescription drugs used by an individual. The system was changed in 1991 introducing a ceiling for the total medical expense any individual can pay in a 12 months period. The medical expense then included both doctor's visits and prescription drugs. From 1 January 1997 onwards separate systems were introduced for doctor's visits and prescription drugs. For prescription drugs, the maximum expense an individual could have during a 12 months period was set to SEK 1300. For outpatient care the maximum cost for a patient was set to SEK 900 in user charges in each 12 month period. Maximum user charge for inpatient care is of 80 SEK per day. Furthermore, starting from 1 January 1997, children below the age of 18 belonging to the same family are regarded as one entity in the high-cost protection system.

There have also been substantial increases in user fees / patient charges, both with regard to physician consultation and in the purchase of prescription drugs. In 1990 the patient cost for a visit to the doctor was SEK 60 and the cost for all prescribed drugs purchased at one occasion was SEK 65. In 1996 most county councils had raised the fees to SEK 100–120 for a visit to a general practitioner and SEK 150–260 for a visit to a specialist physician. In 1996 the patient cost for prescribed drugs was raised to SEK 170 for the first prescribed drug and SEK 70 for each subsequent drug purchased on the same occasion.

At children clinics, vaccinations, health checks and consultation as well as certain types of treatment are provided free of charge to all children under school age. In addition to the fact that the direct cost of health services is low, Sweden has an extensive system of benefits for the sick including

sickness benefit system, compensation for participation in labour market rehabilitation schemes and compensation for forgone earnings due to nursing of sick child.

Other changes which have affected households with children is the regular increase in child subsidy. Child subsidies in Sweden are not means tested and increased from approximately SEK 6000 to SEK 8000 between 1989 and 1996. Households with more than 2 children are entitled to a supplement subsidy as well, but this supplement was temporarily abolished the years 1996-1997.

5 Results

The first section deals with children's physical health issues based on survey data from 1988-89 and 1996-97. We start by analysing the survey data from1988-1989, in which we have survey information based on parent's assessment of child health. We head on to similar analysis based on the 1996-1997 survey which provides a larger selection on child health related variables. For part of the households in the sample we can link information to the survey from 1988-89 enabling us to do some additional sensitivity analysis. The main reason for not pooling the data, and controlling for year dummies, is that many of the survey questions have slightly changed over the years, making the pooling somewhat problematic. Further, given the lapse of time between the years, we do not want to assume that the income-health relation to be the same throughout time.

In the second section we analyze the survey data from 2001-2002 which includes both a limited array of survey information on children's health based on parents assessments, and children's psychosocial health based on the children's own assessment. For part of the households in the survey, register and other survey data information from 1993-1994 are available, enabling a sensitivity analysis.

The regression equation takes the following specification:

$$H_i = \alpha + \beta y_i + \tilde{\beta}\ell_i + \chi X_i + \mathrm{I}\delta Z_i + \varepsilon_i,$$

where H_i is a measure of child health, y_i refers to log family income. In line with earlier research X_i is a vector of standard control variables which include a year dummy, indicator of at least one foreign-born parent, log of household size, an indicator of one parent household, a dummy variable for

the sex of the child (available in the child survey), and a complete set of age dummies. Z_i is a vector of control variables which include parental education level and employment status. I is an indicator variable taking the value one or zero depending on whether the control variables are included or not. ℓ_i is a dummy variable indicating whether the household is liquidity constrained. Since we are dealing with cross section data, the age dummies are intended to capture both age related changes in child behaviour and cohort effects such as availability of treatment that might affect different cohorts. The subscript *i* denotes the individual child.

We focus on family income and liquidity constraints as two key indicators of the family economic situation. Our income variable refers to log net household income, including taxable transfers. Using an alternative measure of household income, such as disposable income –which includes non-taxable transfer payment has shown not to alter the results. The correlation between our income variable and disposable income, as defined by HINK, is 98%. Using an equivalence scale for measuring household income has also shown not to affect the results since we control for household size in our specification.

We estimate the regressions using logit estimations, which enable a more straightforward interpretation of the coefficient parameters using odds ratios. In most cases our variables are ordinal scale variables which enable ordered logit estimations to be used. Alternatively probit estimations can be used, but this change does not affect the results significantly either.

One advantage with our data set is that it includes all the children currently residing in the household. As we would like to control for household specific aspects which may affect all children in the household, we specify a Huber/White estimator where observations are allowed to be independent between households, but not within households, resulting in robust standard errors.

Table 3: Child health variables – Physical health – Definition of H_i variables.

	Age	1988	1989	1996	1997
Chronic health condition:					
H_i^{chc} : Any of the conditions below		X	X	X	X
Impaired vision	3-15	X	X	X*	X*
Impaired hearing	3-15	X	X	X*	X*
Allergy	3-15	X	X	X*	X*
Asthma	3-15	X	X	X*	X*
Digestive system complaints	3-15	X	X	X*	X*
Diabetes	3-15	X	X	X*	X*
Skin complaints – psoriasis	3-15	X	X	X*	X*
Epilepsy	3-15	X	X		
Headache/migraine	4-15			X*	X*
Sickness frequency and use of health system					
H_i^{h} : Hospitalized during past 12 months	0-15	X	X	X	X
$H_i^{h\_days}$: # of days hospitalized during past 12 months	0-15	X	X		
$H_i^{h\_times}$: # of times hospitalized during past 12 months	0-15			X	X
H_i^{dv} : Consulted a doctor due to sickness the past 12 months	0-15	X	X	X**	X**
H_i^{m} : Regular medication	0-15	X	X	X	X
H_i^{hs} : Been at home due to sickness the past 3 months:	0-15			X	X

Note: X denotes that the information on chronic health condition is available for the respective years, * denotes that the information is only available for children aged 4-15, ** denotes that the information on doctor's visit corresponds to the past 3 months.

5.1 Physical health

The information on the physical health aspects can be divided into two main categories. On the one hand we have information relating to actual health status, such as (i) the occurrence of chronic health condition, (ii) hospitalisation (iii) regular medication intake. On the other hand we have information on the days spent at home due to sickness and the use of health services i.e. the number of doctor's visits. The latter set of variables need not solely depend on the child's health needs, but also on the parent's likelihood

to use the health system available or take preventive measures. We choose to look at a wide variety of physical health status variables since health consists of many dimensions. The list of physical health variables included in the survey is presented in Table 3.

Table 4 summarises the results of an income gradient and liquidity constraint effect on child health when it comes to measurable aspects of children's physical health. As can be seen in the table, for both 1988/1989 and 1996/1997, we find no significant income effect on child health. Below, we take a closer look at the results for the five specific measures of physical health.

5.1.1 Chronic health problems

We start by looking at the occurrence of chronic health problems among children. The variable H_i^{chc} is a dummy variable which takes the value 1 if the child has any of the chronic conditions listed in Table 3. As can be seen in Tables 4 (see also Table A1 and A2 in the appendix), for both 1988/1989 and 1996/1997 we find no significant income effect in the prevalence of chronic health problem among children. The result is not altered when controlling for education level and unemployment in the household. Interestingly, we find some evidence that households with liquidity problems have a greater probability of having a child with chronic health problems. The coefficient estimate of the liquidity constraint variables in terms of odds ratio is approximately 1.2.

Table 4: Logit estimations for physical health.

	Parental survey								
	H_i^{chc}		H_i^{h}		H_i^{dv}		H_i^{m}		H_i^{hs}
	88/89	96/97	88/89	96/97	88/89	96/97	88/89	96/97	96/97
y_i	-0.052	0.045	-0.282	0.073	0.115	-0.076	-0.080	0.053	0.169*
	(0.114)	(0.063)	(0.247)	(0.165)	(0.114)	(0.084)	(0.223)	(0.129)	(0.073)
ℓ_i^{III}	0.026	0.217*	0.233	0.316	-0.257+	-0.059	-0.055	0.138	0.336**
	(0.147)	(0.101)	(0.251)	(0.236)	(0.153)	(0.130)	(0.356)	(0.190)	(0.113)
H_i^{chc}			0.745**	0.378*	0.916**	0.829**	2.311**	2.267**	0.487**
			(0.159)	(0.179)	(0.075)	(0.088)	(0.214)	(0.194)	(0.072)
# Obs	4351	5167	4011	4770	4263	4767	4030	4775	4942

Note: + significant at 10%; * significant at 5%; ** significant at 1%. Robust standard errors in parentheses. y_i refers to log household net family income, ℓ_i^{III} refers to whether the

households are liquidity constrained according to definition *III* in the data section. Control variables include log of household size, indicator variable for foreign born parent and single parent household as well as a full set of age dummies, a year dummy, parental employment status and education level. The control variables have been suppressed. H_i^{chc} is a dummy variable which taked the value one if the child has any chronic health conditions listed in Table 3. H_i^h refers to whether the child has been hospitalised the past 12 months, H_i^{dv} refers to whether the child has consulted a doctire due to sickness the past 12 months. H_i^m refers to whether the child has been o regular medication and H_i^{hs} refers to whether the child has been at home due to sickness.

It is however possible that we have an endogeneity issue, given that children's ill health could have a negative effect on parental labour supply, thus decreasing household income. As part of the households in our sample are included in both 1988-1989 and 1996-1997 surveys we can partly control for the endogeneity issue in the 1996-97 by using the corresponding liquidity constraint variable and the household income information from the earlier survey. The Smith-Blundell's test of exogeneity rejects the exogeneity of the income and liquidity constraint variables with a p-value of .002. When including the 1988-1989 values instead of the 1996-1997 values the coefficient estimates remain similar in size and significance when looking at all children, but turns insignificant when limiting the sample to children aged less than 8 years. The variables from the earlier survey are particularly relevant instrument variables for these younger age groups since they could not have affected household income in the survey 8 years earlier.

5.1.2 Hospitalisation frequency, regular medication

Based on both the 1988-89 and 1996-97 surveys, there is no evidence of any significant income or liquidity constraint effects on whether the child is on regular medication, as can be seen in Table 4 and in Tables A3 and A4 in the appendix. The same holds for whether the child has been hospitalised during the year (see Table A5 and A6 in the appendix). These results are robust to whether or not we control for chronic health conditions.

5.1.3 Doctor's visit

In the 1988-89 survey, Table 4 shows a positive income effect, although not significant, on the probability of consulting a doctor. The results are robust – and even turning significant – to the inclusion of chronic health conditions and other control variables, as shown in Table A7 in the appendix, suggesting that higher income households use the medical services more despite the fact that they are not more affected by chronic illness or have had to be hospitalised to a greater extent. The income effect remains significant (at the 5 or 10% level) when including liquidity constraint problems faced by

the household. Liquidity constraints do not show any significant effect on the probability of a doctor's visit.

In the 1996-1997 survey, the coefficient estimate of income is not significant irrespective of the set of controls included. When further including liquidity constraint problems, we find no significant effect of these indicators on doctor's visit (as seen in Table A8 in the appendix). The finding that the income effect disappears in the 1996-1997 survey is especially interesting and may partly be attributed to both the gradual increase in child subsidy which took place between these time periods, as well as the new high cost protection scheme and the introduction of a common high cost protection scheme for all children in the household under the age of 16.

5.1.4 Days at home due to sickness

Based on information from the 1996-1997 survey we find a positive income effect on the probability of the child having stayed at home due to illness. The result prevails even when controlling for chronic health conditions (see Table A9 in the appendix). This could suggest that parents in higher income households are more inclined to let their child stay at home and hence either stay at home to take care of their ill child or arrange for someone to take care of their child. High income households may afford to decrease their own labour supply in response to child ill health, whereas lower income households are less prone to "let" the child stay at home due to ill health, since they cannot afford the loss of income or the cost it entails to arrange for child care. We find the effect to be stable across age groups as well. Including liquidity problems does not significantly affect the income coefficient.

Liquidity problems of type III (as well as type II) increases the probability of a child staying at home due to sickness, but the effect is significant only for children above the age of 10 (see Table A9).[2]

5.2 Psychosocial health

We now focus on the psychosocial health of the child, based on the 2001-2003 years surveys which contain information based on direct interviews with the children as well as with the parents. Our aim in this section is to

[2] Liquidity problems of type I have no effect on the probability of staying at home to take care of sick child. Once again the Smith-Blundell's test fails to reject exogeneity of both the income and liquidity problem variables with a p-value of .73 for liquidity problem II, and .93 for liquidity problem III.

assess whether income measures - including liquidity constraint problems - have an effect on psychosocial health in childhood.

Few studies are based on children's own assessment of their psychosocial health. Since children are the best informants of their own subjective health status, combining on the one hand register data on parental socio economic status and parental own statements of their liquidity constraint problem with on the other hand children's assessment of their health gives us a good point of departure. Furthermore, using both the information from the child survey and that from the parental survey gives us a more balanced picture and limits the lack of objectivity in the measurements. This is especially given that parental psychosocial health assessment of their children can be influenced by own health status which in turn can be affected by socio economic wellbeing.

The set of psychosocial health variables are presented in Table 5. For the children aged 10 to 15, we have information based on direct interviews with the children in which they have to state the rate of recurrence of certain psychosomatic complaints and classify a number of statements relating to a broader context of psychosocial wellbeing into four categories ranging from "fully applies" to "does not apply". The information on psychosocial wellbeing of the children is classified in three broad groups: internalizing problems, externalizing problems as well as problems related to self-perception. We choose to focus on the first group of conditions i.e. internalizing problems / psychosomatic conditions as they are more straight-forward to answer and less vulnerable to measurement error. The main results on externalizing problems and self-perception measures are presented in Appendix Table A10. Parental assessment of children's health is retrieved from the adult ULF survey where the parents have indicated if their child has, on a regular basis, been feeling sad or anxious.

When regressing each psychosocial health variable on household income and the standard set of control variables the overall estimates show that the coefficient estimates of log household income are seldom significant at the 5% significance level, as shown Table 6. There is one exception however. Surprisingly, for a one-log point increase in family income the odds of the child having stated that he/she feels stressed increases by 18%, holding all other variables constant.

The risk that household income is endogenous – i.e. that psychosocial wellbeing of the child affects household income - is not as evident as in the case of physical health, where one would expect hospital visits and the need

of nursing care by parents to decrease parent's labour supply and thus household income.[3]

Table 5: Child's psychosocial health variables.

	2001	2002	2003
Child Survey			
INTERNALIZING*			
H_i^{head} : Headaches	X	X	X
H_i^{Abdom} : Abdominal pains	X	X	X
H_i^{Sleep} : Difficulties falling asleep	X	X	X
H_i^{Stress} : Stress	X	X	X
EXTERNALIZING**			
No worries	X	X	X
Always happy	X	X	X
Rarely make trouble	X		
Have the energy do a lot (of work)	X		
Difficulties concentrating	X	X	X
Often tens and nervous	X	X	X
Often sad and depressed	X	X	X
Become easily angry	X	X	X
Often sulky and irritated	X	X	X
SELF – PERCEPTION**			
Satisfied with the way I look	X	X	X
Often satisfied with myself	X	X	X
Dare say what I feel	X		
Have positive thoughts of my future	X	X	X
Parental survey**			
H_i^{anx} : anxious	X	X	X
H_i^{sad} : sad/depressed	X	X	X

Note: X denotes that the information on psychosocial health status is available for the respective years, * In the past 6 months how often have you suffered from: Every day==1, several times a week==2, once a week==3, several times a month==4, never or more seldom ==5; ****** How well does this statement apply? Does not apply at all ==1, Applies poorly ==2, About right==3, Exactly right==4; Compared to initial definition, the variables have been redefined so as to let a higher value refer to a better health status; ******* The past 6 months how often has he/she been: Never==4, less than once a month ==3, at least once a months==2, at least once a week==1

[3] The Smith-Blundell test fails to reject exogeneity of the income and liquidity problem variables with a p-value of .65 for whether the child is regularly feeling sad and .32 for whether the child is regularly feeling anxious.

Table 6: Logit estimations for psychosocial health.

	Child survey				Parental survey	
	H_i^{head}	H_i^{Abdom}	H_i^{Stress}	H_i^{Sleep}	H_i^{Anx}	H_i^{Sad}
y_i	-0.048	-0.029	-0.228**	-0.029	-0.117	-0.086
	(0.068)	(0.071)	(0.064)	(0.066)	(0.086)	(0.085)
ℓ_i^{III}	-0.339**	-0.399**	-0.294*	-0.225*	-0.911**	-1.049**
	(0.114)	(0.115)	(0.118)	(0.112)	(0.137)	(0.142)
# Obs	4015	4016	4015	4016	3874	3866

Note: + significant at 10%; * significant at 5%; ** significant at 1%. Robust standard errors in parentheses. y_i refers to log household net family income, ℓ_i^{III} refers to whether the households are liquidity constrained according to definition *III* in the data section. Control variables include log of household size, indicator variable for foreign born parent and single parent household as well as a full set of age dummies, a year dummy, parental employment status and education level. The control variables have been suppressed. A higher value on the health variables refers to a better health status. See Table 5 for a description of the dependent variables.

In all cases where the coefficient of the liquidity constraint problem is significant, having liquidity problems in the household weakens the child's psychosocial health, as shown in Table 6. The odds of the child reporting a lower psychosocial health status are between 1.2 and 1.4 times higher for a household which is constrained by liquidity problems compared to a household without such constraints, holding all other variables constant.[4]

Regarding results from the child survey, the magnitude of the effects is comparable across type of liquidity constraint and across psychosocial health variables, as presented in Table A10 in appendix. Type II or III liquidity constraint problems always have a significant effect on internalizing behavioural problem, whereas that of type I liquidity problem is only significant in the case of sleeping problems and abdominal pain. This is to be expected since type II and type III liquidity constraint refer to de facto liquidity constraint problems whereas type I liquidity constraint problem is a hypothetical situation and may not affect the child's situation.

Based on parental assessment the results, in Table 6, show that the household's liquidity constraints have a significant impact on whether the

[4] To investigate whether the impact of liquidity constraints is driven by households in the lower income distribution, we include an interaction term of the occurrence of liquidity constraint in the household and whether the household belongs to the 1st or 2nd income quartile. The coefficient estimate of the interaction term is seldom significant and does not affect the coefficient estimate of the liquidity constraint indicator. This suggests that the liquidity constraints effect on children's internalizing behaviour problems are not driven by households in the lower income distribution.

child is regularly feeling anxious or sad,. We also find the effect to increase with the severity of the liquidity problem as seen in Table A10 in appendix.[5]

The results remain qualitatively robust when controlling for whether the responding parent has stated to have sleeping problems or has been feeling regularly anxious the past 6 months. This may be of importance to control for since parents might be driven by their own level of stress and anxiousness when responding about their children's psychosocial health.

5.3 Discussion

Focusing on psychosocial health, based on the survey years 2001-2003 our study suggests that household income seldom affects the psychosocial health of children. This result, that household income does not have an impact on children's psychosocial health, can be related to West's (1997) findings that the lack of social class differences on children's psychosocial health can depend on the fact that influences from outside the family become more important once the child has reached the age of 10.

We however find strong evidence that the occurrence of liquidity constraints in the household increases the likelihood of the child having a lower psychosocial health status. The results hold for both self-assessed psychosocial health of the child and parental assessment of child's health. There are many reasons potentially relating liquidity constrains and psychosocial health among children. Children may be directly influenced by their parent's worries about the household's financial situation. Furthermore, the financial situation of the household naturally influences the living conditions children are offered. Based on earlier years of the ULF survey, Jonsson et. al. (2004) find evidence that financial hardship influences children's own material and economic resources as well as children's relation with their parents and their peers.

Moreover, we can verify the positive externalities of good psychosocial health on human capital accumulation based on the information we have on self-assessed schooling outcome. Our information on schooling outcome is based on self-assessed information from the child survey. See Table 7 for a description of these variables.

[5] When including a dummy variable for liquidity constrained households who belong to the 1st or 2nd income quartile this interaction term remains insignificant and the liquidity constraint variables are not affected. This suggests that the results are not driven by the fact that liquidity constrained households are concentrated in the lower income distribution.

Table 7: School outcome and achievement in child survey.

	2001	2002	2003
Age	**10+**	**10+**	**10+**
School related			
"help_teacher": Satisfied with help from teachers*	X	X	X
"school_pace": Satisfied with school pace?**	X	X	X
"overall_class": Compared to classmates how clever are you in***:			
Swedish	X		
English	X		
Mathematics	X		
Sports	X		
In general****		X	X

Note: X denotes that the information on school outcome and achievement is available for the respective years, * 1-4 scale 1=yes always, 4=no never; ** 1=prefer slower, 2= yes, 3 =no prefer faster; ***very clever=1, rather clever, middle, rather poor, very poor; **** 1-5 scale best =1, worst==5; Overall_class – referring to how well the child feels he/she does in school compared to classmates – is a 5 scale variable defined as 1= best in the class, and 5 = worst in the class. The definition of overall_class differs between the 2001 and 2002-2003 surveys. The 2002-2003 surveys ask a general question on how well the child does in school compared to classmates, whereas the 2001 asks the question separately for four specific subjects (Swedish, Maths, English and Sports). We take the average of the four subjects so as to make the variable comparable across survey years. Running the regressions separately for the 2001 and 2002-2003 does not make any difference in coefficients. We therefore choose to pool the data for both years and include a year dummy to control for any breaks in the data.

Table 8: Ordered logit estimations for survey year 2001-2003
Dependent variables: School_pace, Help_teacher, Overall_class

	School_pace	Help_teacher	Overall_class
INTERNALIZING*			
Headache	0.128**	-0.261**	-0.131**
	(0.040)	(0.033)	(0.031)
Stomach ache	0.163**	-0.316**	-0.120**
	(0.048)	(0.040)	(0.035)
Felt stressed	0.270**	-0.335**	-0.131**
	(0.036)	(0.030)	(0.027)
Difficulties falling	0.132**	-0.221**	-0.120**
	(0.032)	(0.028)	(0.025)

Note: + significant at 10%; * significant at 5%; ** significant at 1%. Robust standard errors in parentheses. The psychosocial health variables are included one at a time in the specification. The following control variables are included: indicator of foreign born parent, parental employment status,and education level, indicator of single parent households, gender dummy, as well as a full set of age dummies and year dummies.

The estimations in Table 8 presents self-assessed schooling outcome when regressed on one psychosocial health variable at a time. All variables affect schooling outcome significantly. The result suggest that better psychosocial

health status, both self assessed and that based on parental assessment, decreases the likelihood that the child prefers a lower school pace. Similarly, better psychosocial health status increases the likelihood that the child is satisfied with the help he/she gets from the teacher. Self-assessed relative school performance is also positively affected by psychosocial health status. The coefficient estimates of the psychosocial health variables are not affected when further including income and liquidity constraint variables.

6 Concluding remarks

Based on seven survey years from the ULF survey of living conditions stretching over three decades this paper has assessed the income gradient on child health in Sweden.

We have found, based on this Swedish survey data, little convincing evidence of an income gradient or liquidity constraint effect on child health when it comes to measurable aspects of children's physical health, such as the prevalence of chronic health conditions, hospitalisation frequency and long term medication. This is in line with Currie et al. (2006) and Currie and Stabile (2003) who have shown that countries which offer a universal health care system for children have lower or no income gradients on child health. We find evidence of a preventive impact of income as belonging to a higher income household increases the likelihood of the child staying at home due to illness, in the 1996-1997 surveys. We also find evidence that higher income households use medical services more often despite the fact that they are not more affected by illness in the 1988-1989 surveys. This result disappears in the 1996-1997 survey suggesting that the reforms which took place in the Swedish health system during the 1990's provided a more equitable supply of health services.

Focusing on psychosocial health, based on the survey years 2001-2003, our study suggests that household income hardly affects the psychosocial health of children, whereas the occurrence of liquidity constraints in the household increases the likelihood of the child having a lower psychosocial health status. The results hold for both self-assessed psychosocial health of the child and parental assessment of child's psychosocial health. We further verify that psychosocial health has a positive impact on human capital accumulation based on self-assessed schooling outcome measures.

The Swedish context, with tax financed and universally provided health care, subsidised child care, means-tested as well as universal cash transfers for households with children have contributed to limit the income gradient effect on children's physical health status. However this study suggests that

liquidity constraints faced by the households, irrespective of household income, have a negative effect in children's psychosocial health status. This poses an interesting policy issue of whether cash transfers and universal access to health care for children shouldn't be complemented with greater subsidies or debt relief measures for families with children regardless of the household's income level. Recent increases in child subsidies may also prove to affect psychosocial health positively and hence have positive repercussions on schooling outcome as well.

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Appendix

Table A1: Logit estimations for survey year 1988-89. Dependent variable: H_i^{chc} (=1 if chronic health condition, = 0 otherwise)

	H_i^{chc}	H_i^{chc}	H_i^{chc}	H_i^{chc}	H_i^{chc}
y_i	-0.085	-0.021	0.010	-0.009	-0.052
	(0.102)	(0.106)	(0.106)	(0.115)	(0.114)
ℓ_i^I			0.224+		
			(0.124)		
ℓ_i^{II}				0.251*	
				(0.105)	
ℓ_i^{III}					0.026
					(0.147)
# Obs	4383	4383	4365	4356	4351

Note: + significant at 10%; * significant at 5%; ** significant at 1%. Robust standard errors in parentheses. y_i refers to log household net family income, ℓ_i^I - ℓ_i^{III} refers to whether the households are liquidity constrained in any of the three definitions presented in the data section. Control variables in column (1) include log of household size, indicator variable for foreign born parent and single parent household as well as a full set of age dummies, and a year dummy. Column (2)-(5) further include parental employment status and education level. The control variables have been suppressed.

Table A2: Logit estimations for survey year 1996-97. Dependent variable: H_i^{chc} (=1 if chronic health condition, = 0 otherwise)

	H_i^{chc}	H_i^{chc}	H_i^{chc}	H_i^{chc}	H_i^{chc}
y_i	0.029	0.021	0.056	0.043	0.045
	(0.059)	(0.061)	(0.063)	(0.063)	(0.063)
ℓ_i^I			0.251**		
			(0.097)		
ℓ_i^{II}				0.182*	
				(0.084)	
ℓ_i^{III}					0.217*
					(0.101)
# Obs	5181	5181	5167	5167	5167

Note: See table A1.

Table A3: Logit estimations for survey years 1988-1989. Dependent variable: H_i^m: (= 1 if on regular medication, = 0 otherwise)

	H_i^m	H_i^m	H_i^m	H_i^m	H_i^m
y_i	-0.132	-0.035	-0.049	-0.037	-0.080
	(0.198)	(0.217)	(0.219)	(0.226)	(0.223)
ℓ_i^I			0.057		
			(0.308)		
ℓ_i^{II}				0.215	
				(0.246)	
ℓ_i^{III}					-0.055
					(0.356)
H_i^{chc}	2.322**	2.317**	2.342**	2.307**	2.311**
	(0.214)	(0.214)	(0.218)	(0.214)	(0.214)
# Obs	4059	4059	4044	4035	4030

Note: See table A1. H_i^{chc} is an indicator variable equal to 1 if the child has any of the chronic conditions listed in Table 3.

Table A4: Logit estimations for survey years 1996-1997. Dependent variable: H_i^m: (= 1 if on regular medication, = 0 otherwise)

	H_i^m	H_i^m	H_i^m	H_i^m	H_i^m
y_i	0.050	0.050	0.033	0.064	0.053
	(0.127)	(0.127)	(0.127)	(0.130)	(0.129)
ℓ_i^I			-0.049		
			(0.182)		
ℓ_i^{II}				0.227	
				(0.172)	
ℓ_i^{III}					0.138
					(0.190)
H_i^{chc}	2.269**	2.268**	2.272**	2.264**	2.267**
	(0.194)	(0.194)	(0.194)	(0.195)	(0.194)
# Obs	4788	4788	4775	4775	4775

Note: See note Table A3.

Table A5: Logit estimations for survey years 1988-1989. Dependent variable: H_i^h: (=1 if hospitalized during past 12 months, = 0 otherwise)

	H_i^h	H_i^h	H_i^h	H_i^h	H_i^h
y_i	-0.330	-0.276	-0.259	-0.280	-0.282
	(0.222)	(0.235)	(0.236)	(0.254)	(0.247)
ℓ_i^I			0.200		
			(0.224)		
ℓ_i^{II}				0.211	
				(0.202)	
ℓ_i^{III}					0.233
					(0.251)
H_i^{chc}	0.742**	0.747**	0.744**	0.743**	0.745**
	(0.158)	(0.159)	(0.158)	(0.160)	(0.159)
# Obs	4038	4038	4025	4016	4011

Note: See note Table A3.

Table A6: Logit estimations for survey years 1996-1997. Dependent variable: H_i^h: (=1 if hospitalized during past 12 months, = 0 otherwise)

	H_i^h	H_i^h	H_i^h	H_i^h	H_i^h
y_i	0.076	0.050	0.074	0.105	0.073
	(0.156)	(0.154)	(0.158)	(0.180)	(0.165)
ℓ_i^I			0.250		
			(0.200)		
ℓ_i^{II}				0.513*	
				(0.222)	
ℓ_i^{III}					0.316
					(0.236)
H_i^{chc}	0.390*	0.390*	0.376*	0.370*	0.378*
	(0.177)	(0.177)	(0.178)	(0.179)	(0.179)
# Obs	4783	4783	4770	4770	4770

Note: See note Table A3.

Table A7: Logit estimations for survey years 1988-1989. Dependent variable: H_i^{dv} (=1 if consulted a doctor due to sickness past 12 months, = 0 otherwise)

	H_i^{dv}	H_i^{dv}	H_i^{dv}	H_i^{dv}	H_i^{dv}
y_i	0.172+	0.185+	0.189+	0.163	0.115
	(0.101)	(0.107)	(0.107)	(0.114)	(0.114)
ℓ_i^I			0.098		
			(0.132)		
ℓ_i^{II}				0.058	
				(0.110)	
ℓ_i^{III}					-0.257+
					(0.153)
H_i^{chc}	0.924**	0.923**	0.916**	0.915**	0.916**
	(0.074)	(0.074)	(0.075)	(0.075)	(0.075)
# Obs	4293	4293	4277	4268	4263

Note: See note Table A3.

Table A8: Logit estimations for survey years 1996-1997. Dependent variable: H_i^{dv} (=1 if consulted a doctor due to sickness past 12 months, = 0 otherwise)

	H_i^{dv}	H_i^{dv}	H_i^{dv}	H_i^{dv}	H_i^{dv}
y_i	-0.081	-0.077	-0.071	-0.066	-0.076
	(0.080)	(0.083)	(0.085)	(0.084)	(0.084)
ℓ_i^I			-0.001		
			(0.119)		
ℓ_i^{II}				0.056	
				(0.109)	
ℓ_i^{III}					-0.059
					(0.130)
H_i^{chc}	0.829**	0.834**	0.828**	0.826**	0.829**
	(0.087)	(0.088)	(0.088)	(0.088)	(0.088)
# Obs	4780	4780	4767	4767	4767

Note: See note Table A3.

Table A9: Logit estimations for survey years 1996-1997. Dependent variable: H_i^{hs} (=1 if child stayed at home due to sickness, = 0 otherwise)

	H_i^{hs}	H_i^{hs}	H_i^{hs}	H_i^{hs}
y_i	0.127+	0.131+	0.155*	0.169*
	(0.070)	(0.072)	(0.073)	(0.073)
ℓ_i^I		-0.012		
		(0.101)		
ℓ_i^{II}			0.190*	
			(0.091)	
ℓ_i^{III}				0.336**
				(0.113)
H_i^{chc}	0.495**	0.495**	0.489**	0.487**
	(0.072)	(0.072)	(0.072)	(0.072)
# Obs	4955	4942	4942	4942

Note: See note Table A3.

Table A10: Ordered Logit estimations for survey year 2001-2003. Dependent variables: Psychosocial health variables.

	Liquidity constraint problem		
	ℓ_i^I	ℓ_i^{II}	ℓ_i^{III}
DEPENDENT VARIABLES:			
CHILD SURVEY			
Internalizing behaviour			
H_i^{head} : Headaches	-0.090	-0.263**	-0.339**
	(0.096)	(0.087)	(0.114)
H_i^{Abdom} : Abdominal pains	-0.261**	-0.273**	-0.399**
	(0.097)	(0.087)	(0.115)
H_i^{Stress} : Stress	-0.110	-0.152+	-0.294*
	(0.098)	(0.086)	(0.118)
H_i^{Sleep} : Difficulties falling asleep	-0.270**	-0.290**	-0.225*
	(0.099)	(0.083)	(0.112)
Externalising behaviour			
No worries	-0.049	-0.164	-0.099
	(0.151)	(0.145)	(0.171)
Always happy	-0.363**	-0.266**	-0.375**
	(0.107)	(0.093)	(0.123)
Rarely make trouble	-0.363*	-0.258+	-0.260
	(0.163)	(0.143)	(0.180)
Have the energy do a lot (of work)	-0.168+	-0.289**	-0.300*
	(0.098)	(0.091)	(0.121)
Difficulties concentrating	-0.467**	-0.402**	-0.396**
	(0.100)	(0.087)	(0.119)
Often sad and depressed	-0.107	-0.058	-0.100
	(0.099)	(0.091)	(0.126)
Become easily angry	-0.296**	-0.246**	-0.342**
	(0.102)	(0.087)	(0.117)
Self-perception			
Satisfied with the way I look	-0.256*	-0.100	-0.179
	(0.103)	(0.091)	(0.121)
Often satisfied with myself	-0.288**	-0.257**	-0.163
	(0.102)	(0.090)	(0.122)
Dare say what I feel	-0.186	-0.009	0.082
	(0.171)	(0.158)	(0.210)
Have positive thoughts of my future	-0.191+	-0.173+	-0.261*
	(0.109)	(0.100)	(0.133)

Table A10: (cont'd).

	PARENTAL SURVEY		
H_i^{anx}: anxious	-0.422**	-0.469**	-0.911**
	(0.112)	(0.102)	(0.137)
H_i^{sad} : sad/depressed	-0.431**	-0.595**	-1.049**
	(0.122)	(0.108)	(0.142)

Note: + significant at 10%; * significant at 5%; ** significant at 1% Robust standard errors in parentheses. The following set of control variables are included: log household net family income, log of household size, indicator of foreign born parent, parental employment status and education level, indicator of single parent households as well as a full set of age dummies and year dummies. Compared to initial definition, the variables have been redefined so as to let a higher value refer to a better health status. Note that the liquidity constraint variables have been included one at a time to avoid collinearity.

Table A11: Ordered logit estimations for survey year 2001-2003. Dependent variables: School_pace, Help_teacher, Overall_class

	School pace	Help teacher	Overall class
EXTERNALIZING**			
Often sulky and irritated	0.263**	-0.429**	-0.354**
	(0.056)	(0.047)	(0.043)
Become easily angry	0.104*	-0.251**	-0.285**
	(0.043)	(0.038)	(0.034)
Often sad and depressed	0.260**	-0.511**	-0.305**
	(0.058)	(0.047)	(0.042)
Often tens and nervous	0.189**	-0.349**	-0.317**
	(0.050)	(0.046)	(0.039)
Difficulties concentrating	0.375**	-0.383**	-0.624**
	(0.044)	(0.038)	(0.037)
Have the energy do a lot (of work)	0.587**	-0.125*	-0.162**
	(0.063)	(0.062)	(0.057)
Rarely start a row	0.088	-0.161**	-0.238**
	(0.065)	(0.062)	(0.061)
No worries	0.169*	-0.485**	-0.540**
	(0.072)	(0.051)	(0.049)
SELF – PERCEPTION**			
Dare say what I feel	0.090	-0.197*	-0.438**
	(0.100)	(0.085)	(0.080)
Have positive thoughts of my future	0.517**	-0.769**	-0.658**
	(0.078)	(0.065)	(0.061)
Often satisfied with myself	0.411**	-0.569**	-0.496**
	(0.060)	(0.052)	(0.048)
Satisfied with the way I look	0.293**	-0.585**	-0.357**
	(0.054)	(0.049)	(0.045)

Note: + significant at 10%; * significant at 5%; ** significant at 1%. Robust standard errors in parentheses. The psychosocial health variables are included one at a time in the specification. The following control variables are included: indicator of foreign born parent, parental employment status,and education level, indicator of single parent households, gender dummy, as well as a full set of age dummies and year dummies.

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