

Well-Being of Mother and Child
Health, Income and Employment:
Which Role Do They Play?

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Preface

Die letzten Jahre bestanden aus mehr als nur dieser Arbeit. Ich konnte zahlreiche wertvolle Erfahrungen sammeln und mich fachlich sowie persönlich weiterentwickeln. Viele Menschen aus dem universitären Umfeld haben mich in dieser Zeit bestärkt, motiviert und angeleitet. Ich danke diesbezüglich Petra Stein und Stefan Liebig für die Betreuung meiner Magisterarbeit, Stefan Felder und Reinhold Schnabel für die vielen Anregungen und Diskussionen zu meiner Masterarbeit sowie Erwin Amann für die stets angenehme Zusammenarbeit und dafür, dass er sich ohne zu zögern als Zweitgutachter für diese Dissertation zur Verfügung gestellt hat.

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Contents

1	Introduction	5
1.1	Motivation and problem	5
1.2	Overview and summary of findings	7
2	Does family income affect children’s health?	12
2.1	Introduction	12
2.2	Literature	14
2.3	Model	17
2.4	Data and variables	19
2.5	Results	23
2.5.1	Cross-sectional analysis	23
2.5.2	Longitudinal analysis	26
2.6	Discussion and conclusion	31
3	Does illness have an impact on child development?	33
3.1	Introduction	33
3.2	Literature	35
3.3	Data	38
3.3.1	Child development and child health	39
3.3.2	Other Variables	42
3.4	Econom(etr)ic Model	44
3.5	Results	50
3.5.1	Classical regressions – descriptive results	50
3.5.2	Bayesian regressions – causal impact	53
3.6	Discussion and Conclusions	61
4	Does the combination of family and paid work make you ill?	63
4.1	Introduction	63

4.2	Literature	65
4.3	Econom(etr)ic Model	70
4.4	Data	72
4.5	Results	74
	4.5.1 Descriptive Results	74
	4.5.2 Dynamic Results	79
4.6	Discussion and Conclusion	82
5	Concluding discussion	84
	Bibliography	86
	References for chapter 1	87
	References for chapter 2	91
	References for chapter 3	95
	References for chapter 4	97
	References for chapter 5	103
	List of figures	105
	List of tables	105
	Appendices	112
	Appendix of chapter 2	113
	Appendix of chapter 3	144
	Appendix of chapter 4	399

Chapter 1

Introduction

1.1 Motivation and problem

Demographic development in developed countries is broadly characterised by low fertility rates and increasing life expectancy. While past decades have shown a substantial decrease in fertility in most developed countries, there is a slight recovery detectable with respect to the last years. Nevertheless, fertility, which was 1.66 children on average per woman between 2005 and 2010, is still far below the replacement level of 2.1 children per woman. At the same time, life expectancy is predicted to rise from 77 years in 2005 to 2010 to 83 years in 2045 to 2050 on average in developed countries (United Nations, Department of Economic and Social Affairs, Population Division, [2013](#)). Both trends are reflected by increasing old-age support ratios which are predicted to decrease from 4.2 in 2012 to 2.1 in 2050 on OECD average (OECD, [2014](#)). Therefore, in 2050 there are on average only two economically active people per elderly person.

These developments have serious consequences for public spending, labour markets and economic growth. For instance, Economic Policy Committee and the European Commission ([2006](#)) projects public spending to increase by 4 percentage points of gross domestic product in the Euro area due to demographic change. The predicted rise is mainly due to increasing expenditures on pensions, health care and long-term care. In addition to that, Economic Policy Committee and the European Commission ([2006](#)) predicts an increase of the total number of people employed up until 2017, but a subsequent decline of about 30 million people until 2050. The rise up until 2017 is mainly due to increasing female labour force participation and partially due to increasing engagement of older workers. Among others, these factors pose challenges for future economic growth (European Commission, [2007](#)) as rising productivity becomes a key factor for growth.

There are several political strategies to tackle demographic challenges. Two of them have been frequently discussed and are of considerable interest to the thesis at hand. The first concerns human capital accumulation and the second refers to labour force reserves (for a more detailed discussion see European Commission, 2007).

The need for increasing productivity is closely linked to the issue of human capital accumulation. As Börsch-Supan (2003) points out, the overall increase of efficiency cannot be achieved by a rise of capital productivity alone, but has to be complemented by increasing labour productivity. Therefore, a major task for policy makers will be to implement measures that foster the formation of human capital. While a broad range of measures is conceivable, Heckman (2006) as well as Cunha and Heckman (2007) provide strong arguments for early interventions as these exhibit the highest returns to investment. Thus, human capital policies should address children specifically. Furthermore, Heckman (2007) stresses the nexus between human capital and health. The latter may be considered as a specific type of human capital and might affect the formation of other types like cognitive and noncognitive skills. The negative long-term consequences of adverse health conditions are well documented (see for instance Currie (2009) or Case and Paxson, 2010) and it can be shown that ill health in early childhood affects various economic outcomes in later life, like wage, employment and educational achievements. This thesis addresses two related issues. Chapter (2) considers the question of whether family income has a protective effect on child health. This question is of considerable interest for policy makers as many political measures focus on redistribution of financial resources. In addition to this, controversially, this issue is discussed within the context of health economic literature. Chapter (3) investigates the impact child health has on the development of cognitive and noncognitive skills throughout childhood.

As stated above, a second strategy, often suggested to tackle the challenges of demographic transition, is to increase the labour force participation of women and older workers which constitute the untapped labour reserve. Women in particular, are thereby faced with two potentially opposing demands: women are still mainly responsible for family affairs as well as domestic chores (see for instance Bianchi and Milkie, 2010 and the references therein), and yet they are also supposed to increase their labour market engagement. Combining demands from these different domains might be challenging and could result in positive or negative effects on various domains of individual and family well-being, as well as having an impact on maternal health. In the past, economists predominately analysed the effect of maternal employment on child health or development, while there have been only a few studies dealing with maternal health (see for instance Chatterji et al., 2013). However, if

struggling with this double burden has adverse effects, then this issue is of considerable interest for economists and policy needs to pay careful attention to supporting families and in particular mothers, as worse health might result in deteriorating human capital or decreasing labour market participation. In addition to this, maternal health might be an important factor for the production of child health (e.g. Khanam et al., 2009). Chapter (4) addresses this issue by analysing the effect of the double burden on self-assessed maternal health.

All three of the issues outlined above are dealt with by application of sophisticated microeconomic methods to comprehensive longitudinal data. Thus facilitating the discussion of several problems of the preceding empirical literature. The econometric approaches employed within this work tackle different problems that are crucial for drawing causal inference. First, I employ approaches that account for reversed causation. This source of endogeneity causes a major empirical problem with respect to each question under consideration as the analysed relationships are potentially bidirectional. For instance, while child health might be improved by high quality care or goods which become available with high income, parents might reduce their labour supply and, thus their income in order to increase available time for child care. Women struggling with the double burden might suffer from ill health due to increased levels of stress, however, women in worse health might be less capable and experience higher levels of conflict. The second issue relates to unobserved individual attributes, like genetics, parental traits or environmental characteristics that affect maternal health or child outcomes. Another example are paternal reactions to adverse child health as parents might provide additional care. Thirdly, the theoretical motivation for the analysis at hand comes from Grossman (1972, 2000), Jacobson (2000) and Cunha and Heckman (2007). The health capital model outlined by Grossman (1972, 2000) and extended to the family by Jacobson (2000) as well as the human capital model presented by Cunha and Heckman (2007) describe the accumulation of human capital as a dynamic process. This feature is, to a certain extent at least, reflected by the selected estimators. The employed empirical methods are described in more detail in the respective chapters.

1.2 Overview and summary of findings

Chapter (2) („Does family income affect children’s health?“) investigates whether there is a socioeconomic gradient in child health or, in other words, whether there are gaps in child health that are related to differences in family income. When one considers, for ex-

ample, a broad set of confounding variables, unobserved heterogeneity and the dynamics of health production. Many studies provide evidence for a positive relationship between child health and family income, which is referred to as the child health/ family income gradient, and suggest that this relationship becomes stronger as children grow older (see for example Case et al., 2002; Currie and Stabile, 2003; Condliffe and Link, 2008). Despite this strong empirical support for the existence of a protective effect of income on child health, little is known on the mechanisms underlying the gradient. While earlier studies find that the gradient is robust with respect to consideration of confounding variables like, for example, parental education, parental physical health, child's initial health stock or simple genetic mechanisms (e.g. Case et al., 2002; Currie et al., 2007; Propper et al., 2007), more recent analyses show that the gradient is less robust if confounding variables as well as the dynamic of health capital accumulation are taken into account (e.g. Murasko, 2008 and Khanam et al., 2009). Results obtained by Murasko (2008) and Khanam et al. (2009) suggest that parental, and in particular maternal, health are important determinants of child health. Although the child health/ family income gradient has attracted considerable attention since the influential study of Case et al. (2002), several unsolved issues remain. More recent studies refer to the health capital model provided by Grossman (1972, 2000) and adopt a dynamic framework (Murasko, 2008 and Khanam et al., 2009). However, these studies do not apply appropriate dynamic estimators and do not account for unobserved heterogeneity. The analysis at hand contributes to the literature by applying a dynamic panel estimator (Arellano and Bover, 1995; Blundell and Bond, 1998) to comprehensive British birth cohort data from the Millennium Cohort Study. In addition to this, particular attention is paid to differences between household types. The System GMM estimator (Arellano and Bover, 1995; Blundell and Bond, 1998) in conjunction with comprehensive data, allows us to consider unobserved heterogeneity and endogenous right-hand side variables as well as to disentangle the mechanisms underlying the gradient. Initial cross-section results are in line with the preceding literature as there is strong evidence for a protective effect that grows stronger up to the age of seven. The results also stress the role of maternal health, although this could not fully explain the gradient. The longitudinal results corroborate the theoretical predictions and show a significant path dependency of child health. The protective effect of income is significantly less compared to cross-sectional results. Again, maternal health proves important and leads to a disappearance of the gradient. These findings confirms evidence presented by Khanam et al. (2009). Furthermore, the analysis shows marked differences with respect to family type. In summary, the results suggest paying particular attention

to parental health rather than family income. Parental ill health could influence child health in different ways, like providing less or lower quality care. Strong path dependency of child health recommends policies that intervene in early childhood.

Chapter (3) („Does illness have an impact on child development?“) deals with the question of whether child health affects the development of cognitive and noncognitive skills during early childhood. Early empirical analyses of this matter focus on physical health and cognitive skills as well as educational outcomes and find strong evidence for ill health having negative consequences on child development and educational outcomes (for example Edwards and Grossman, 1979, Shakotko et al., 1980, Rosenzweig and Wolpin, 1994 and Korenman et al., 1994). Nonetheless, these findings have been subject to severe criticism due to inappropriate or missing consideration of methodological issues like unobserved heterogeneity or reversed causation (e.g. Kaestner and Corman, 1995). Kaestner and Corman (1995) and Behrman and Lavy (1997) address these problems and find few or no significant effects of child health on developmental outcomes. Currie and Stabile (2006) stress the importance of mental health, in terms of ADHD, and incorporate other developmental outcomes. They provide strong evidence for mental health having a negative on various outcomes. Their results additionally suggest that mental health might have an even stronger effect than physical health. Ding et al. (2009) analyse whether depression, ADHD and obesity exhibit adverse effects on academic performance. Their results indicate that there is a negative effect only for girls but not for boys. Within the present study I draw particular attention to methodological issues in order to facilitate causal inference. The selected econometric approach accounts for reversed causality and unobserved heterogeneity. Birth cohort data from the Millennium Cohort Study allows extending the scope of the existing literature to a broad range of health (physical and mental conditions) and developmental (cognitive and noncognitive skills) outcomes and accounting for numerous confounding variables. Additionally, the analysis separately addresses the effect health has on children living in lone parent households compared to children living in two parent families. Reversed causality is ruled out by investigating the lagged impact of health on child development. Besides this there may be observed or unobserved variables that affect both health and developmental outcomes. Thus, the model comprises a development and a health equation which can have variables in common and incorporates equation specific terms representing unobserved characteristics that are allowed to be correlated. The resulting system of equations is estimated by Bayesian methods as these avoid simulation of multivariate integrals. The results suggest that one has to be aware of the striking difference between children living in different household types. Whilst there is roughly no

significant effect of physical conditions on cognitive and noncognitive skills among children living with single parents, chronic diseases exhibit significant negative effects on a broad range of noncognitive outcomes. Cognitive skills among children living with both parents are only affected if they are related to spatial thinking. Mental health in terms of hyperactivity and inattention exhibits strong negative effects on cognitive and noncognitive abilities irrespective of household type and child age. In summary, the results are in line with those of Currie and Stabile (2006) and Ding et al. (2009). The analysis highlights the importance of considering unobserved characteristics. Comparisons of Bayesian and conventional maximum likelihood estimates indicate substantial bias and that adverse consequences are underestimated if unobserved heterogeneity is not taken into account. In view of these results human capital policies should consider two important aspects: first, policies intended to foster human capital accumulation should regard health as a certain type of human capital and should, therefore, aim at improving health too. Second, given the intertemporal effects described above, policies should intervene in early childhood. Both claims are in line with the arguments put forward by Heckman (2006) and Cunha and Heckman (2007).

Chapter (4) („Does the combination of family and paid work make you ill?“) analyses the health implications of struggling with combining potentially opposing demands from the labour domain and the home domain. Engaging in both domains might result in positive and negative effects on maternal health. According to role accumulation theory (e.g. Sieber, 1974 or Greenhaus and Powell, 2006) women gain from engaging in several roles as they allow compensation for adverse effects in the working domain through positive experiences in family life, for example. In contrast, role strain theory concludes that women suffer from the double burden of combining multiple demands due to role overload (e.g. Verbrugge, 1983) or role conflict (e.g. Arber et al., 1985). There is large number of empirical analyses dealing with this issue or related questions. Most of these studies come from medicine, psychology or sociology and only few have been conducted by economists (e.g. Chatterji and Markowitz, 2012 and Chatterji et al., 2013). The existing literature offers widespread support for the role strain hypothesis as most studies find adverse health implications. This finding holds true irrespective of whether physical (e.g. Krantz and Östergren, 2001 or Emslie et al., 2004) or mental health (for example Roxburgh, 2004, Nomaguchi et al., 2005, Oomens et al., 2007 or Perry-Jenkins et al., 2007) is under consideration. Only few studies find little or even no evidence for negative effects on maternal health (Waldron et al., 1998, Fokkema, 2002, Krantz et al., 2005 and Usdansky et al., 2012). Role accumulation theory receives little empirical support as only Fokkema

(2002) and Nordenmark (2004b) find positive effects on maternal health. Chatterji and Markowitz (2012) and Chatterji et al. (2013) provide evidence for negative effects of the double burden on self-assessed health and mental health. This thesis challenges several methodological issues that have not been appropriately considered by the majority of the preceding studies. I use dynamic panel estimators as health production is a dynamic process (Grossman, 1972, 2000). Additionally, dynamic panel estimators and in particular system GMM (Arellano and Bover, 1995 and Blundell and Bond, 1998) estimators allow for endogenous right-hand side variables and account for unobserved individual effects. The analysis focuses on the intertemporal impact of the double burden on self-assessed maternal health in order to avoid reversed causality. As women struggling with the double burden might reduce their hours worked or completely withdraw from the labour market for two years, for instance, the regression models account for potential coping strategies. In contrast to some studies mentioned above, I use comprehensive panel data from the German Socioeconomic Panel covering the years 2001 to 2011. This data provides reasonable sample size and facilitates causal inference. The extent of labour market demands is measured by broad employment categories and the amount of time spent on household chores and child care is approximated by the number of children living in the household. The results at hand broadly support role strain theory as there is robust evidence for negative health implications resulting from the double burden. Women combining part- or full-time work and simultaneously caring for children suffer from worse self-assessed health. This result is robust with respect to the selected estimator and potentially confounding variables. In addition to this, it seems important to consider individual reactions to the double burden as neglecting coping mechanisms leads to an underestimation of adverse effects. Thus, the results confirm major findings from the preceding empirical literature and suggest that policies should carefully address reconciliation of family and work.

Chapter 2

Does family income affect children's health?

2.1 Introduction

The socioeconomic gradient in adult health is well documented in the literature (see for example Deaton and Paxson, 1998). It is nonetheless difficult to find the causes of this gradient for several methodological reasons, such as reversed causality for example. The search for the origin of the income gradient has led to a closer examination of disparities in child health that are related to differences in family income, starting with the seminal study of Case et al. (2002). Studying the income gradient in childhood not only has methodological advantages, but is also interesting itself. Heckman (2006), most notably, argues in favour of fostering children in order to enhance human capital accumulation. Health might be regarded as one of several input factors in the production of abilities and skills as well as one dimension of human capital by itself. Fighting differences in child health that are related to socioeconomic status or family income might provide a convenient mechanism to improve outcomes in later life (e.g. Case et al., 2005), to establish equality of opportunities, and to reduce inefficiencies within the production of human resources.

The positive relationship between child health and family income – the child health/ family income gradient – has received widespread empirical support and there is some evidence of this relationship strengthening as children age (for example Case et al., 2002; Currie and Stabile, 2003; Condliffe and Link, 2008). These findings suggest a protective effect of income on child health, in other words, an increasing health gap with respect to the socioeconomic status in terms of family income. There is nonetheless little agreement on

the mechanisms underlying the gradient. Former studies (e.g. Case et al., 2002; Currie et al., 2007; Propper et al., 2007) find that income has a significant positive effect even after controlling for parental education, parental physical health, child's initial health stock and simple genetic mechanisms, for example. More recent studies, such as Murasko (2008) and Khanam et al. (2009) for instance, derive their empirical modelling approach from a theoretical model of child health production and take into account the dynamics of the production process. While these studies broadly confirm the results of preceding research, they give strong evidence for parental physical and mental health as the main determinants of child health. After controlling for these factors income has no isolated effect on child health.

This paper contributes to the existing literature in several ways. Firstly, it is the first study of child health which applies genuine dynamic panel models to the issue of child health production. In particular I use a system GMM estimator (Arellano and Bover, 1995; Blundell and Bond, 1998). Secondly, it is one of the first studies that uses the Millennium Cohort Study, a comprehensive British birth cohort data set, in order to investigate the impact of family income on child health. Thirdly, preceding studies have not differentiated between different household types. I am going to estimate separate models for both two parent and lone parent families.

The Millennium Cohort Study provides the opportunity to control for various variables that might affect child health, as well as for unobserved individual or family characteristics. The cross-section results broadly confirm results which have been obtained in preceding studies. There is strong evidence in favour of a negative raw income gradient that increases as children age but flattens at the age of seven. The results also stress the role of maternal health, although this could not fully explain the gradient. In addition to this, findings in respect to two parent families contrast with those found for single parent families. The latter are on average disadvantaged over two parent families regarding several important aspects, like income, child health and maternal health. Given these a priori differences, income does not seem to play a significant role within the group of single parents. The longitudinal results confirm the theoretical predictions and show significant path dependency of child health. Once one controls for the lagged health status and unobserved heterogeneity, the impact of income is strongly reduced. Again, the consideration of maternal health characteristics turns out to be important. In contrast to the cross-sectional results, the income gradient disappears after controlling for maternal health. These findings are in line with those presented by Khanam et al. (2009).

The results strengthen the doubts on the relevance of income as a major determinant of

child health. They draw particular attention towards factors that detain parents from optimal investments into the development and health of their children. The results also suggest that social policy should aim at interventions in early childhood, since circumstances in early life have an effect on later child health due to its path dependency. This is very similar to the findings concerning investments into cognitive and noncognitive development of children (for an extended overview of empirical findings and a comprehensive theoretical model, see Cunha et al., 2005 and Cunha and Heckman, 2007).

After a critical appraisal of the existing literature in section (2.2), I introduce the subsequent empirical analysis by a brief discussion of a dynamic model of child health production (2.3) that is based on suggestions provided by the theoretical literature on (child) health production (e.g. Grossman, 1972, 2000; Jacobson, 2000). Section (2.4) presents the Millennium Cohort Study and the variables used throughout the analysis. Subsequently, I show results based on cross-sections (2.5.1) in order to ensure comparability to the existing literature as well as to be able to contrast findings that are derived from static models with those obtained by dynamic estimation (2.5.2). Finally, the findings are discussed in section (2.6).

2.2 Literature

Case et al. (2002) and Currie and Stabile (2003) are one of the first studies that address the child health/ family income gradient. Case et al. (2002) find evidence in favour of a significant effect of family income on child health using various representative US data sets. In addition to that, their results indicate a steepening gradient as children grow older. Children of a low socioeconomic status consequently accumulate adverse health effects over their life time. Currie and Stabile (2003) find comparable patterns using Canadian data. Subsequent studies broadly confirm the existence of the raw gradient using covariates similar to Case et al. (2002) in their base specification, but fail to provide consistent evidence concerning the steepening of the gradient.

The presence of an income gradient has been approved by numerous authors for a variety of countries, as for instance, by Chen et al. (2006) who use the same data as Case et al. (2002), Propper et al. (2007) who uses British cohort data, Case et al. (2008) who rely on British cross-section data, Condliffe and Link (2008) who apply US data from different sources, Khanam et al. (2009) who use Australian longitudinal data and Reinhold and Jürges (2012) who utilise German data. Unlike this conclusive evidence, the results concerning the steepening of the gradient are mixed. Chen et al. (2006) cannot find a stronger

relationship between parental income and child health as children get older. Propper et al. (2007) as well as Reinhold and Jürges (2012) do not provide evidence in favour of a steepening gradient either. In opposition to that, Case et al. (2008) find results for England similar to those of Case et al. (2002). The findings of Condliffe and Link (2008) corroborate the evidence provided by Case et al. (2002) and Currie and Stabile (2003) as they find a significant and increasing gradient. Khanam et al. (2009) find a steepening gradient as Australian children get older.

In a nutshell, the results show that children with a low socioeconomic status are in worse health than children with a high socioeconomic status. This finding appears to be significant irrespective of the country under study. The evidence with respect to a family income/ child health age profile is mixed.

There is also mixed evidence in regard to causes of the gradient steepening as children age. While Case et al. (2002) carefully argue that this can be explained by the severity effect according to which low-income children are less able to cope with a health shock (severity thesis), Currie and Stabile (2003) state that children from low-income families are more likely to be subject to a negative health shock (prevalence thesis) over their life span. Condliffe and Link (2008) find evidence in favour of both, the prevalence as well as the severity thesis. Murasko (2008) distinguishes between current and cumulative effects of income. According to the former, the steepening gradient might be due to the fact that older low-SES children are hit by more and more severe health conditions than younger low- and high-SES children. Following the latter, health of low-income children depreciates faster over time. This might be due to a higher prevalence of chronic diseases, a higher degree of severity of a given health condition or the inability to provide adequate inputs. He finds a strong cumulative effect for young children and a strong contemporaneous effect for adolescents, but is not able to distinguish between the prevalence or severity thesis. Taken together, it seems clear that there is a cumulative effect of income or socioeconomic status on child health.

Despite the consistent empirical evidence with respect to the existence of the gradient, there seems to be only little knowledge concerning the origin of the gradient. So far, I provided a brief overview of the results with respect to the raw gradient, which is measured using only some basic covariates. Despite the robustness of those outcomes, the raw gradient might simply reflect the effect of other health production inputs that are correlated with family income. Thus, the gradient might rather reflect omitted variable bias than causality. This line of argumentation has been investigated by several authors. Case et al. (2002) include parental education, health and labour force participation, health

related behaviours and insurance status in their analyses. Furthermore, they also consider indicators of the initial health stock, like birth weight. Parental health and initial health endowment in particular reveal a substantial influence on later child health. Nevertheless, the inclusion of these controls does not make the gradient disappear. They also rule out simple genetic explanations by comparing a sample of adoptive children to a sample of biological children and find no significant difference. Currie et al. (2007) explore further inputs like nutritional intake, family lifestyle indicators and ethnic background, but are not able to provide an exhaustive explanation of the income gradient. Both studies emphasize the importance of parental health. Propper et al. (2007) focus on the role of parental health and behaviours. Their results also highlight the importance of parental health, and in particular maternal mental and physical health. Income has almost no isolated effect after controlling for these determinants. Murasko (2008) and Khanam et al. (2009) use a health production model which originated from Grossman (1972, 2000) in order to provide a theoretical basis for the empirical analysis. Khanam et al. (2009) derive a broad set of input factors and estimate a child health production model. Their results particularly emphasize the importance of nutritional intake as well as parental mental and physical health. After controlling for these input factors, the gradient no longer exists. In addition, they highlight the dynamic character of the health production model, but are not able to implement dynamic econometric models due to data limitations.

Although previous research has not provided a comprehensive understanding concerning the origin of the income gradient, there is evidence in favour of a possible pathway through parental health. However, this explanation points to further questions. Firstly, the income gradient in adult health (for an early investigation see for instance Van Doorslaer et al., 1997) is well known, while the direction of causality is not clear. Parental health status might merely reflect a part of the income effect. Secondly, parents might reduce their labour supply in response to child health shock in order to provide care. Hence, parental income cannot be treated as exogenous and estimates are biased. Gould (2004), Doyle et al. (2007) and Frijters et al. (2009) provide evidence, which casts doubt on the exogeneity of parental income while Khanam et al. (2009) applied a generalised Hausman test in order to test for endogeneity of family income and parental education which suggested that these variables are likely to be exogenous. Thirdly, it is not clear how worse parental health translates into low child health. In addition to those considerations, the theoretical literature suggests treating health production as a dynamic process. To my knowledge, only Murasko (2008) and Khanam et al. (2009) considered lagged health status in their analyses although they could not account for several econometric problems

which arise in dynamic settings due to data limitations. Another aspect which has not yet been considered sufficiently is the (temporal) stability of parental relationship. This might, however, be of considerable interest for several reasons. Firstly, shortfall of one parent leads to deficient resources that can be invested into child health. For instance, Page and Stevens (2004) document substantial losses of material well-being after a divorce using US data. Andress et al. (2006) provide evidence for five European countries, including Great Britain. They find adverse economic effects of parental separation in all countries considered in their study. In addition to a lack of resources, lone parents might have different health production technology from two parent families. Secondly, parental separation causes direct negative effects on child health and development. Amato (2000) provides a brief overview of mechanisms linking parental separation to children’s well-being. Stress theories constitute one of the most important theoretical approaches in this field and assume that a divorce (or the process of separation) leads to dramatic and stressful changes of a child’s environment, which pave the way for adverse effects on health or development. Although the findings of Weitoft et al. (2003) and Stastny (2003) should be interpreted with care, they find evidence of health disadvantages of children in lone parent households. Kim (2011) shows the adverse effects of divorce for cognitive and non-cognitive child development. Hence, it is of considerable interest from a policy point of view to differentiate between lone and two parent households. Ignoring potential differences between household types might result in biased estimates if divorce correlates with child health and parental income.

2.3 Model

Following the health production model of Grossman (1972, 2000), an individual is endowed with an initial health stock that depreciates over time. The individual can offset the depreciation at least to some extent by investing in its own health. Thus health production is essentially a dynamic process.

A child’s capabilities to invest in its own health capital, however, are limited. Jacobson (2000) applies the original model to the family as the producer of child health. From this perspective the child is passive in the production of its own health while the parents provide material and non-material investments, e.g. time, nutrition and habitation.

Current health status (H_{hit}) of child i in a household of type h in period t is supposed to be a function of the health status of the previous period (H_{hit-1}), the logarithm of family income (Y_{hit}), a column vector of various input factors (\mathbf{x}_{hit}) and an error term (η_{hit}).

Family income can enter in different forms like current income, lagged income or average income as a proxy of permanent income:

$$H_{hit} = \alpha_h + \gamma_h H_{hit-1} + \beta_h \ln(Y_{hit}) + \mathbf{x}'_{hit} \delta_h + \eta_{hit} \quad (2.1)$$

η_{hit} can be thought of as the sum of an individual-specific effect (u_{hi}), which captures time-invariant unobserved heterogeneity, and an idiosyncratic error term (e_{hit}). Distinguishing between lone and two parent families might be important, due to differences in the technology of health production for example (see also section (2.2) for a further discussion). Estimation of equation (2.1) involves several methodological problems. Although recent research is predicated on the dynamic model, see for instance Murasko (2008) and Khanam et al. (2009), the employed methods are not able to cope with the incidental parameter problem (Neyman and Scott, 1948) or dynamic panel bias (Nickell, 1981). Therefore reported estimates might be biased and lead to misleading policy conclusions. There are several econometric approaches that allow a solution to these problems.

Arellano and Bond (1991) suggest first-difference-transformation of equation (2.1) in order to remove the individual fixed effect. The resulting difference GMM estimator instruments differences with at least two periods lagged levels of the endogenous variables that are supposed to be uncorrelated with the idiosyncratic error. It has the disadvantage of being less efficient if γ is close to unity. In addition, it does not allow for identification of time-invariant regressors. The system GMM estimator (Arellano and Bover, 1995 and Blundell and Bond, 1998) introduces additional moment conditions in order to increase efficiency at cost of supplemental restrictions on initial conditions. System GMM maintains the original approach from Arellano and Bond (1991) and gains further instruments from differencing the data instead of differencing the regressors. Changes in instrumenting variables are valid instruments as long as these are uncorrelated with the individual-specific effects or as long as the correlation between their levels and the fixed effects is time-invariant. With respect to initial conditions, one has to assume that, conditional upon regressors \mathbf{x}_{hit} , the initial conditions must not correlate with individual-specific effects. Additionally, the system GMM allows us to identify the effects of time-invariant variables. Both difference GMM and system GMM offer the capability to account for pre-determined or endogenous regressors. While these approaches are applicable to linear equations, the incidental parameters problem becomes more severe in case of nonlinear equations that might be of special interest due to the count nature of the health indicators used in this analysis. Wooldridge (2005) suggests a conditional maximum likelihood approach that can easily be applied to poisson models, but premises observation of initial conditions, which

are not available for one of my health measures. Additionally, the conditional maximum likelihood approach does not permit the consideration of the potential endogeneity of regressors. Blundell et al. (2002) develop a dynamic count data GMM estimator. This linear feedback model uses quasi-differencing in order to remove the individual-specific effect and allows for pre-determined or endogenous regressors. As well as difference GMM, the linear feedback model does not identify time-constant variables.

The following analysis applies the linear system GMM estimator developed in Arellano and Bover (1995) and Blundell and Bond (1998) for several reasons: firstly, they are designed for panels with only a few periods of time and many individuals. Secondly, they do not require observation of the initial conditions. Given the richness of data, the central assumption in order to receive unbiased estimates is likely to be fulfilled. Thirdly, they allow us to consider pre-determined and endogenous regressors and fourthly, with respect to system GMM, they allow for identification of time-invariant regressors.

2.4 Data and variables

I use data from the Millennium Cohort Study (MCS), a huge British birth cohort data set that covers children born in the UK in the years 2000 and 2001, respectively. The MCS has been collected in the years 2001, 2004, 2006 and 2008 and offers information on about 14,000 (sweep four) to 18,000 (sweep one) families with almost 19,000 children. About 11,000 families are present in all sweeps. While mothers are the main respondents in the majority of interviews, the MCS also provides partner and teacher interviews as well as tests of the child's cognitive and non-cognitive development. It covers a broad range of topics like household demographics, care, health, education, employment and family background. The MCS consequently offers a comprehensive set of child health indicators and production inputs (for further information see Hansen, 2012). In the following, I describe the health measures and production inputs considered throughout the analysis. Apart from income, the latter can be categorized into four broad groups: standard background controls, maternal investments in child care (time and quality), maternal health and health related behaviour and other input factors (table (A.2.1) provides summary statistics). I focus on the characteristics of the mother for two reasons: first, former research points at maternal inputs as a major determinant of child health (for a detailed discussion see section (2.2)). Second, paternal information is missing for about 2,000 two parent households. Restricting the sample to the remaining households might yield a selective sample. Another difficulty is related to the differentiation between household types as has been

argued in section (2.3). Empirical analyses are accordingly carried out separately for lone and two parent families. This creates a problem due to the panel structure of the data. Despite the cross-sectional classification of households as belonging to either group, panel data causes the problem of households switching from one type to another. Focussing on stable families might lead to highly selective sample, especially with respect to lone parent households, and could reduce the sample sizes by about 1,000 observations. Therefore, the subsequent analysis uses data on stable as well as unstable households from a balanced sample.

Child health. The MCS offers several indicators of child health, such as parent-assessed child health, the number of chronic diseases, the number of hospital admissions and the number of injuries and accidents. Data on parent-assessed child health is available for children at the ages of six or eight and has not been asked of younger ages and, therefore, cannot be used for panel analyses. Moreover, subjective measures are often subject to criticism due to reporting biases or heterogeneity (for a recent discussion see Johnston et al., 2010). The number of chronic diseases is constructed from ICD-10 diagnostics, which should offer a high reliability. Unfortunately, question style has changed between the first and second wave, which leaves three waves for estimation. The number of hospital admissions provides another objective indicator of child health. Hospital admissions are consistently collected through all ages, but might reflect only more severe conditions rather than general health.

Table 2.1: Summary of child health indicators

	Age 1		Age 3		Age 5		Age 7	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Two parent								
# of health problems	-		0.17	0.44	0.23	0.54	0.22	0.53
# of hospital admissions	0.16	0.51	0.25	0.74	0.16	0.58	0.11	0.46
Observations	7862		7717		7509		7333	
Lone parent								
# of health problems	-		0.22	0.51	0.28	0.60	0.26	0.59
# of hospital admissions	0.24	0.64	0.37	0.99	0.19	0.65	0.14	0.53
Observations	1120		1250		1473		1649	

Note: Own calculations based on MCS sweeps 1 to 4. Balanced panel containing all households.

Table (2.1) shows some descriptive statistics of child health measures. Although children in lone parent families tend to suffer from higher numbers of health problems as well as more hospital admissions than children in two parent families, these differences are not

statistically significant.¹

Family Income. According to the literature, I differentiate between logarithmized lagged income and permanent income which is typically approximated by the mean income of the available panel periods. The MCS provides data on income in terms of income bands which are transformed to continuous data and missing information is imputed using interval regression (Hansen, 2012, appendix A). I use imputed continuous income data in terms of logarithmized lagged as well as logarithmized average income in different specifications. Lagged income is less suspicious to be affected by reversed causality.

Standard background controls. The standard controls comprise basic maternal, child and household characteristics. The analysis includes controls for mother’s highest educational level (highest level of national vocational qualification) and mother’s age at birth. Maternal education is supposed to influence efficiency of health production and to improve health-related knowledge and behaviours. Mother’s age at birth acts as an indicator of maternal maturity level and might depict unobserved behavioural characteristics. Basic child characteristics are sex and age, ethnicity and initial health endowment. It is important to control for child sex since several studies find sex differences in morbidity in early life (e.g. Bosch et al., 1992 and Sweeting, 1995), according to which boys exhibit a higher morbidity than girls. Psychological studies stress sex differences in behaviour in early life, for instance Ginsburg et al. (2007) provide evidence for sex differences in physical risk taking behaviours. They find boys willing to take more physical risks than girls, which might increase the risk of injury. Ethnicity captures unobserved family practices and characteristics that might be driven by cultural background. The initial health stock has been proven to exhibit a lasting impact on later health and other outcomes (e.g. Case et al., 2005 and Black et al., 2007). I use low birth weight (below 2,500g) as an indicator of initial health endowment. Additional controls for household characteristics are household size, number of older siblings and country of residence. Because the main respondent is not the same person in all interviews, a binary variable indicates whether the natural mother answered the questionnaire (which is the case in the majority of interviews).

Time and care. Time and child care inputs can be divided into two groups. The first group comprises indicators concerning the amount of maternal time investments into the production of child outcomes. As there are no direct measures of maternal time, I use a subjective assessment of the available time with child, maternal labour force participation and the type of child care arrangement as proxy variables. Labour force participation is represented by its lagged values in order to rule out reversed causality. The effect of pa-

¹Hospital admissions have been restricted to an upper bound of ten admissions. Values exceeding this threshold have been set to this ceiling in order to limit the influence of extreme values.

rental employment is ambiguous from a theoretical point of view as it involves a trade-off between income and time. The evidence concerning the influence of both paternal and maternal employment on child health is scarce. Among others, Morrill (2011) finds a negative effect of maternal employment on child health outcomes and Ruhm (2000) shows the positive influence of parental leave regulations in Europe on child health. The second group comprehends indicators of the quality of maternal care investments. The length of breastfeeding serves as an indicator of postnatal investments. Kramer (2001) provide strong evidence in favour of positive short-term and Horta (2007) confirm positive long-term effects of breastfeeding. In addition to that, I consider parenting style in terms of whether the child is often smacked or told off when they misbehave and whether the child has a regular bedtime. Child's television consumption and how often the mother reads to the child are supposed to indicate the quality of maternal time investments as well. According to Adachi-Mejia et al. (2006), a child's television consumption is associated with an increased risk of becoming overweight which itself promotes other diseases.

Health and health related behaviour. Parental physical and mental health might be important determinants of child health for several reasons that are beyond the scope of this analysis. For example, worse parental health could prevent parents from providing necessary inputs into child health production or could expose the child to stress. Recent empirical studies emphasize the importance of parental health (e.g. Propper et al., 2007 and Khanam et al., 2009). However, including parental health as an explanatory variable in equation (2.1) might lead to misleading interpretations, since a significant positive relationship between child and parental health might merely reflect the influence of (permanent) income. Keeping this in mind, I carefully interpret the influence of parental physical health which is measured by the presence of a long term illness. Mental health status is derived from the Kessler K6 scale. Ill mental health is captured by a Kessler K6 score greater or equal to thirteen. Parental smoking negatively affects the quality of the home environment and contributes to respiratory diseases and other illnesses (e.g. Frijters et al., 2011). In addition to that, parental drinking patterns offer supplemental information on the child's living environment and parental contributions to child health production. Balsa and French (2011) provides a short overview of potential threats emanating from parental alcohol abuse (for a comprehensive summary see Burke et al., 2006). Maternal tobacco and alcohol consumption during pregnancy have been found to have a severe adverse impact on birth outcomes as well as lasting negative effects on later health and non-health outcomes. These variables additionally depict possible unobserved maternal traits. *Other investments.* The literature has shown that the residential environment

has a substantial influence on child health and development. Breyse et al. (2004) summarize empirical evidence concerning the influence of the home environment on child health. They outline several mechanisms like structural deficiencies, air pollution, environmental toxins and unsafe playgrounds which increase the risk of injuries or accidents. Given data restrictions due to longitudinal analysis, I approximate the quality of environmental input factors by housing tenure and whether there is damp or condensation on the walls. The latter refers to mould which might cause respiratory disorders and thereby reflects housing quality. The quality of a child’s nutritional intake (e.g. Khanam et al., 2009) is approximated by the daily consumption of at least one portion of fruit.

2.5 Results

2.5.1 Cross-sectional analysis

Table (2.2) summarizes the coefficients of logarithmized permanent family income from linear regressions² of child health indicators on different sets of health production inputs. Each regression includes stratum design variables and the estimated standard errors take into account the clustering of the MCS sample. The results are separated by household type and child age.

Comparison of the results with previous findings is only possible to a limited extent, because former research has focused on subjective measures of child health. The raw evidence on the relationship between child health, depicted by the number of health problems, and permanent family income suggests a protective effect of income or substantial health gaps by socioeconomic status measured by family income (e.g. Case et al., 2002). Furthermore, the gradient steepens as children grow older (e.g. Case et al., 2002 and Currie and Stabile, 2003). While the coefficient is quite small at the age of three it gets more pronounced in the subsequent years. The gradient flattens when children are seven years old. This pattern can be observed for both household types. The effect of permanent income seems to be larger for lone parent families than two parent families. These results do not carry over to the number of hospital admissions. The raw gradient for families with both parents decreases as children grow older and is not present in single parent households. In addition to this, it is generally of lower magnitude. This is plausible, because hospital admissions are more likely to result from acute and more serious health problems.

²Using one period lagged family income leads to lower coefficients. Using Poisson models instead of linear regression does not alter the results. Results of both sets of regressions are not shown.

Table 2.2: The influence of permanent income on child health (cross-section)

Household type	Model	# of health problems			# of hospital admissions		
		Age 3	Age 5	Age 7	Age 3	Age 5	Age 7
Two parent							
	Raw	-0.02*	-0.06***	-0.06***	-0.06***	-0.03**	-0.02
		(0.01)	(0.01)	(0.01)	(0.02)	(0.01)	(0.01)
	BG	-0.03*	-0.07***	-0.07***	-0.02	-0.02	-0.01
		(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)
	BG + TAC	-0.02	-0.06***	-0.07***	-0.02	-0.01	0.00
		(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)
	BG + HHRB	-0.01	-0.04**	-0.04**	0.01	-0.00	0.01
		(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)
	BG + OTHI	-0.01	-0.06***	-0.05**	-0.01	-0.02	0.00
		(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)
	BG + TAC + HHRB + OTHI	0.01	-0.04**	-0.02	0.01	-0.00	0.02
		(0.01)	(0.02)	(0.02)	(0.02)	(0.02)	(0.01)
	BG + TAC + OTHI	-0.00	-0.06***	-0.04**	-0.01	-0.01	0.01
		(0.01)	(0.02)	(0.02)	(0.03)	(0.02)	(0.01)
	Observations	7717	7509	7333	7717	7509	7333
Lone parent							
	Raw	0.00	-0.08**	-0.08***	0.04	-0.02	-0.06*
		(0.03)	(0.03)	(0.03)	(0.05)	(0.03)	(0.03)
	BG	-0.05	-0.10**	-0.10***	-0.01	-0.02	-0.06
		(0.03)	(0.04)	(0.04)	(0.07)	(0.04)	(0.05)
	BG + TAC	-0.06	-0.07*	-0.10**	0.08	-0.02	-0.06
		(0.04)	(0.04)	(0.04)	(0.08)	(0.04)	(0.04)
	BG + HHRB	-0.05	-0.06	-0.09**	0.02	-0.03	-0.06
		(0.03)	(0.04)	(0.04)	(0.07)	(0.04)	(0.05)
	BG + OTHI	-0.04	-0.05	-0.09**	0.03	-0.00	-0.06
		(0.03)	(0.04)	(0.04)	(0.07)	(0.04)	(0.05)
	BG + TAC + HHRB + OTHI	-0.06	-0.03	-0.08**	0.12	-0.01	-0.07
		(0.04)	(0.05)	(0.04)	(0.08)	(0.05)	(0.05)
	BG + TAC + OTHI	-0.06	-0.04	-0.09**	0.11	-0.00	-0.07
		(0.04)	(0.05)	(0.04)	(0.08)	(0.05)	(0.05)
	Observations	1250	1473	1649	1250	1473	1649

Note: Own calculations based on MCS sweeps 1 to 4. Balanced panel containing all households. Specifications: *Raw*: raw correlation between child health and permanent family income; *BG*: model includes controls for basic maternal, child and household characteristics; *BG + TAC*: *BG* augmented by time and care inputs; *BG + HHRB*: *BG* augmented by maternal health and health related behaviours; *BG + OTHI*: *BG* augmented by variables related to other family inputs; *BG + TAC + HHRB + OTHI*: *BG* augmented by time and care inputs, maternal health and health related behaviours and variables related to other family inputs. Variables are described in detail in section (2.4). * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

The raw income gradient might be misleading because it picks up the effect of input factors that are correlated with both income and child health. In the following, I introduce additional sets of variables which might enter the production process of child health as inputs or influence efficiency of their application (see section (2.4)). The inclusion of background controls does not alter the effect of income with respect to two parent households, but

increases the absolute value of the gradient for lone parent families. Taking into account maternal time investment, quality of time and care as well as other family inputs does not decrease the observed gradient of two parent households with children in the group aged five to seven. The effect on single parent families is heterogeneous. While consideration of the respective variables leads to substantially lower and insignificant gradients with respect to children at the age of five, it has no effect on the observed income coefficient for children aged seven. Whereas time, care and other family inputs do not influence the gradient, the inclusion of maternal health and related behaviours leads to a decreased gradient in absolute terms for single parents with respect to children at the age of five, and for two parent families with respect to both groups of age. However, the gradient only disappears after all three groups of input factors have been jointly considered for families with both parents and children aged seven and children at the age of five in single parent households.

Maternal health seems to be an important explanation of the income gradient as including only time and other family inputs, and excluding maternal health, results in a significant and pronounced gradient for two parent families. In opposition to that, it seems to be less important concerning lone parent households.

In the following, I focus on the number of health problems and draw conclusions from the entire regression results. Table (A.2.10) in the appendix presents the results of the complete model including background controls as well as the other groups of input factors. The results confirm a broad set of evidence provided by proceeding research. As has been discussed in section (2.4), girls are significantly healthier throughout all age groups and for both household types. Low birth weight is significantly related to worse health outcomes for children in two-parent households whereas this result is less robust for children of single parents. While I cannot find a uniform picture with regard to time and care inputs, the results concerning maternal health are consistent with former research. Recent studies emphasise maternal physical and mental health as important determinants of child health (for instance Propper et al., 2007 and Khanam et al., 2009). The results show large and significantly adverse effects of the presence of a longstanding illness for both household types. High psychical distress is significantly associated with a higher number of health conditions for children at three years of age in families with both parents and for children aged five in single parent families. The influence of mental health is more pronounced for two parents than for single parent households. Using the full range of the Kessler K6 scale (results not shown) leads to a more homogenous picture: while for two parent families mental distress shows a moderate but stable effect on child health, this cannot be found

for lone parent households. However, as can be seen from table (A.2.1) single parents in general suffer from worse physical and mental health. Housing conditions measured by damp on the walls correlate with worse child health for children in the group aged five to seven in two parent households.

2.5.2 Longitudinal analysis

In this section, we turn to the longitudinal perspective on the child health/ family income gradient. Taking this view allows for dynamic modelling of child health production and for taking unobserved heterogeneity into account. As described in section (2.3) estimation of equation (2.1) is done by system GMM following Arellano and Bover (1995) and Blundell and Bond (1998).³ The presented estimations involve first differencing in order to purge out the individual fixed effect. In addition to that, I use the implemented two-step estimation procedure and Windmeijer-corrected errors. The errors take into account clustering due sample design. In (system) GMM variables supposed to be exogenous, act as their own instruments. Endogenous variables are instrumented using second and deeper lags.

According to Nickell (1981), applying ordinary least squares and fixed effects estimation to equation (2.1) yields upper and lower bounds for reasonable estimates of the coefficient of the lagged endogenous variable. OLS regression is upward biased due to the positive correlation between the individual fixed effect (u_{hi}) and the lagged dependent variable. This bias cannot be eliminated by fixed effects estimation because correlation between the lagged endogenous variable and the error carries over to their within-group transformed values. Nickell (1981) shows that within-group transformation leads to a downward bias of the coefficient of the lagged endogenous variable. The dynamic panel bias becomes more important, the shorter the panel is. As can be seen from table (A.2.12) in the appendix, the coefficients should lie within the range from -0.4 to 0.5 with respect to the number of health problems and from -0.3 to 0.2 regarding the number of hospital admissions. Although these bounds are reasonable from an econometric perspective, theory suggests a positive relationship as health is measured in terms of ill health.

Table (2.3) provides empirical evidence on the dynamic child health production model focusing on the effect of logarithmized permanent household income. In addition to that, the table shows the coefficients of the lagged endogenous variable.

The impact of permanent income on child health, measured by the number of longstanding health conditions, is in general lower when compared to the cross-section estimates for both family types. Nonetheless, it persists up to the inclusion of the entire set of inputs

³Estimations are carried out using the STATA command *xtabond2* provided by Roodman (2009).

Table 2.3: The influence of permanent income on child health (panel)

Household type	Model	# of health problems		# of hospital admissions	
		Income	Lagged health	Income	Lagged health
Two parent					
	Raw	-0.04*** (0.01)	0.34*** (0.03)	-0.03*** (0.01)	0.15*** (0.03)
	BG	-0.05*** (0.01)	0.34*** (0.03)	-0.01 (0.01)	0.15*** (0.03)
	BG + TAC	-0.05*** (0.01)	0.34*** (0.03)	-0.01 (0.01)	0.15*** (0.03)
	BG + HHRB	-0.03** (0.01)	0.33*** (0.03)	-0.00 (0.01)	0.15*** (0.03)
	BG + OTHI	-0.04*** (0.01)	0.34*** (0.03)	-0.00 (0.01)	0.15*** (0.03)
	BG + TAC + HHRB + OTHI	-0.02 (0.01)	0.33*** (0.03)	0.01 (0.01)	0.15*** (0.03)
	BG + TAC + OTHI	-0.04** (0.02)	0.34*** (0.03)	0.00 (0.01)	0.15*** (0.03)
	Observations		7796		8152
Lone parent					
	Raw	-0.06*** (0.02)	0.32*** (0.08)	-0.02 (0.02)	0.11*** (0.03)
	BG	-0.07** (0.03)	0.32*** (0.07)	-0.03 (0.03)	0.11*** (0.03)
	BG + TAC	-0.07** (0.03)	0.32*** (0.07)	-0.01 (0.03)	0.11*** (0.03)
	BG + HHRB	-0.05* (0.03)	0.32*** (0.07)	-0.03 (0.03)	0.11*** (0.03)
	BG + OTHI	-0.05* (0.03)	0.32*** (0.07)	-0.04 (0.03)	0.11*** (0.03)
	BG + TAC + HHRB + OTHI	-0.04 (0.03)	0.33*** (0.07)	-0.02 (0.03)	0.11*** (0.03)
	BG + TAC + OTHI	-0.05* (0.03)	0.32*** (0.07)	-0.02 (0.03)	0.11*** (0.03)
	Observations		1936		2146

Note: Own calculations based on MCS sweeps 1 to 4. Balanced panel containing all households. Specifications: *Raw*: raw correlation between child health and permanent family income; *BG*: model includes controls for basic maternal, child and household characteristics; *BG + TAC*: *BG* augmented by time and care inputs; *BG + HHRB*: *BG* augmented by maternal health and health related behaviours; *BG + OTHI*: *BG* augmented by variables related to other family inputs; *BG + TAC + HHRB + OTHI*: *BG* augmented by time and care inputs, maternal health and health related behaviours and variables related to other family inputs. Variables are described in detail in section (2.4). * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

for children in households with both parents. This result is, again, driven by variables summarized in the category „health and health-related behaviour“. This finding is supported by estimating a model excluding maternal health and health related behaviours. The effect of income is less persistent concerning lone parent families than for two parent households. Regarding lone parent families the effect of income is stronger in the baseline

regressions and disappears after consideration of maternal health and health-related behaviour or other family investments. As discussed above, the income gradient with respect to hospital admissions is almost not present. This result might be a consequence of the imperfect measurement of health by hospital admissions as it presumably captures only more severe illnesses which are less likely to correlate with socioeconomic status.

The estimates of the lagged dependent variable lie within the reasonable range and show a positive correlation of past health status with the present state as supposed by the theoretical framework. The effect of lagged health status is robust to the inclusion of other input factors and can be found for lone parent families as well as two parent households. Path dependency is more pronounced with the number of health problems than hospital admissions. Hence, the results broadly confirm theoretical considerations and recent empirical evidence in favour of the path dependence of child health, e.g. from Khanam et al. (2009). Moreover, neglecting path dependency in cross-section and not accounting for unobserved heterogeneity leads to an overestimation of the effect of permanent income on current child health.

Table (2.4) provides estimates of the exhaustive dynamic model. Some results that have been found in cross-section can also be found in panel analysis. Girls in two parent households have significantly fewer health problems than boys. A child's initial health stock is positively correlated with subsequent health outcomes. Low birth weight exhibits a lasting negative effect on child health. Time inputs and other family investments do not show significant correlations with child health as has already been found in cross-sectional analysis. As stated above, maternal health is an important determinant of child health. The presence of a longstanding illness is significantly positive correlated to child health. However, maternal mental distress is now found to be insignificant. This result is robust with respect to the application of the complete Kessler scale instead of the dichotomised version. Therefore, the results contrast with those from Propper et al. (2007) but support those of Murasko (2008) and Khanam et al. (2009).

Table 2.4: Determinants of child health – BG + TAC + HHRB + OTHI (panel)

	# of health problems				# of hospital admissions			
	Two parent		Lone parent		Two parent		Lone parent	
Lagged health	0.33***	(0.03)	0.33***	(0.07)	0.15***	(0.03)	0.11***	(0.03)
Income								
log of permanent family Income (weekly, imp.)	-0.02	(0.02)	-0.04	(0.03)	0.01	(0.01)	-0.02	(0.03)
Standard background controls								
<i>Maternal highest national vocational qualification</i>								
=1 if NVQ level 1	-0.03	(0.02)	-0.02	(0.05)	0.00	(0.02)	-0.02	(0.05)
=1 if NVQ level 2	-0.01	(0.01)	-0.01	(0.03)	0.02*	(0.01)	0.03	(0.04)
=1 if NVQ level 3	-0.03**	(0.01)	-0.05	(0.04)	-0.00	(0.01)	0.02	(0.04)
=1 if overseas qual. only	0.03	(0.05)	-0.05	(0.07)	0.05	(0.04)	-0.10**	(0.05)
=1 if none of these	-0.03	(0.02)	0.01	(0.05)	0.03	(0.03)	-0.03	(0.05)
<i>Mother's age at birth</i>								
less than 20 years	0.01	(0.03)	-0.00	(0.06)	0.03	(0.03)	-0.03	(0.06)
20 to 24 years	-0.00	(0.02)	0.06	(0.05)	0.02	(0.02)	-0.04	(0.05)
25 to 29 years	0.01	(0.02)	0.01	(0.04)	0.02*	(0.01)	-0.03	(0.04)
30 to 34 years	0.00	(0.01)	0.03	(0.04)	0.01	(0.01)	-0.05	(0.04)
<i>Child demography</i>								
=1 if female	-0.06***	(0.01)	-0.03	(0.02)	-0.05***	(0.01)	-0.04*	(0.02)
age (days)	-0.00	(0.00)	0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
<i>Child's ethnicity</i>								
=1 if mixed	0.02	(0.04)	-0.03	(0.05)	-0.03	(0.03)	-0.08*	(0.04)
=1 if indian	-0.00	(0.04)	-0.08	(0.13)	0.02	(0.05)	-0.10*	(0.06)
=1 if pakistani or bangladeshi	-0.00	(0.03)	-0.08	(0.10)	0.03	(0.04)	0.12	(0.18)
=1 if black	-0.02	(0.04)	-0.04	(0.09)	0.03	(0.05)	0.06	(0.07)
=1 if other	-0.02	(0.06)	-0.23***	(0.05)	-0.01	(0.05)	-0.15***	(0.05)
<i>Child's health endowment</i>								
=1 if birth weight < 2500g	0.07***	(0.03)	0.11**	(0.05)	0.06***	(0.02)	0.04	(0.04)
<i>Size of household</i>								
log of hh size incl. cm	-0.05*	(0.03)	-0.04	(0.04)	-0.06**	(0.03)	-0.02	(0.04)
<i>Number of older siblings</i>								
no older siblings	-0.00	(0.01)	0.01	(0.03)	0.00	(0.01)	-0.04	(0.03)
two or more older siblings	-0.02	(0.01)	0.04	(0.04)	-0.00	(0.02)	-0.04	(0.04)
<i>Respondent's relationship to child</i>								
=1 if natural mother of child	0.08**	(0.04)	0.02	(0.05)	0.04	(0.04)	0.08	(0.05)
<i>Country where interview took place</i>								
=1 if wales	0.06*	(0.04)	-0.03	(0.09)	0.07**	(0.04)	-0.03	(0.11)
=1 if nireland	-0.01	(0.06)	0.05	(0.24)	0.03	(0.05)	-0.13	(0.12)
=1 if scotland	-0.06	(0.06)	0.04	(0.22)	0.02	(0.05)	-0.13	(0.10)
Time and care								
<i>Time mother spends with child</i>								
=1 if plenty	0.00	(0.02)	-0.01	(0.03)	-0.00	(0.01)	0.04	(0.03)
=1 if just enough	-0.02**	(0.01)	-0.05**	(0.02)	0.01	(0.01)	0.00	(0.02)
<i>Childcare</i>								
=1 if formal childcare	0.01	(0.02)	0.05	(0.05)	-0.01	(0.02)	-0.00	(0.04)
=1 if informal/ other childcare	0.01	(0.02)	-0.03	(0.04)	0.02	(0.02)	-0.01	(0.04)
=1 if grandparent care	-0.01	(0.01)	0.03	(0.03)	-0.02	(0.01)	0.04	(0.04)
<i>Maternal employment (t – 1)</i>								
L.=1 if part-time	-0.03**	(0.01)	-0.03	(0.02)	-0.01	(0.01)	-0.03	(0.03)
L.=1 if full-time	-0.02	(0.02)	-0.03	(0.06)	0.00	(0.03)	-0.04	(0.05)
<i>How long mother breastfed child</i>								
=1 if for less than 7 days	-0.02	(0.02)	-0.02	(0.04)	-0.02	(0.02)	0.01	(0.03)
=1 if for at least 1 week to 3 months	-0.00	(0.01)	0.02	(0.03)	-0.01	(0.01)	0.01	(0.03)
=1 if for 4 to 6 months	-0.00	(0.02)	0.02	(0.05)	-0.04***	(0.01)	-0.01	(0.04)
=1 if for more than 6 months	0.01	(0.02)	-0.01	(0.03)	-0.03*	(0.01)	-0.02	(0.03)
<i>If child is naughty. . .</i>								
=1 if mother smacks child	-0.09**	(0.04)	0.10	(0.10)	0.01	(0.03)	0.03	(0.08)
=1 if mother tells child off	0.02	(0.01)	0.03	(0.02)	0.02	(0.01)	-0.01	(0.02)
<i>Bedtime on term-time weekdays</i>								
=1 if regular bedtime	-0.01	(0.02)	0.03	(0.03)	-0.01	(0.02)	-0.03	(0.03)
<i>Daily TV/ video consumption</i>								
=1 if no tv/ videos	-0.03	(0.03)	-0.03	(0.08)	-0.01	(0.04)	-0.04	(0.12)
=1 if up to 1 hour tv/ videos	0.01	(0.01)	0.02	(0.03)	-0.01	(0.01)	0.02	(0.03)
=1 if more than 3 hours tv/ videos	-0.01	(0.01)	-0.02	(0.03)	-0.00	(0.02)	-0.03	(0.03)
<i>How often mother reads to the child</i>								
=1 if several times a week	-0.00	(0.01)	-0.00	(0.02)	-0.02**	(0.01)	-0.02	(0.02)
=1 if occasionally	-0.01	(0.02)	-0.04	(0.04)	-0.02	(0.02)	-0.03	(0.04)

continued on next page

Table 2.4 – continued from previous page

	# of health problems				# of hospital admissions			
	Two parent		Lone parent		Two parent		Lone parent	
=1 if never	0.04	(0.05)	0.02	(0.06)	-0.05	(0.03)	0.07	(0.07)
Health and health-related behaviour								
<i>Maternal physical health</i>								
=1 if longstanding illness	0.11***	(0.01)	0.16***	(0.03)	0.05***	(0.01)	0.03	(0.02)
<i>Maternal mental health (dichotomised)</i>								
=1 if high distress	0.02	(0.04)	0.05	(0.05)	0.02	(0.03)	0.01	(0.04)
<i>Does mother currently smoke</i>								
=1 if currently smokes	0.02	(0.01)	-0.02	(0.02)	0.01	(0.02)	-0.03	(0.03)
<i>How often mother drinks alcohol</i>								
=1 if 1-2 times per month	0.00	(0.02)	-0.03	(0.03)	0.01	(0.01)	-0.01	(0.03)
=1 if 1-2 times per week	-0.02	(0.01)	-0.02	(0.04)	-0.00	(0.01)	0.04	(0.03)
=1 if at least 3 times a week	-0.02	(0.02)	-0.07*	(0.04)	-0.01	(0.01)	-0.02	(0.03)
Other								
<i>Housing tenure</i>								
=1 if council rented	-0.04*	(0.02)	-0.01	(0.04)	-0.00	(0.02)	0.01	(0.04)
=1 if rented (housing association or private)/ other	0.02	(0.02)	0.03	(0.03)	0.00	(0.02)	-0.01	(0.03)
<i>Problems with damp on the wall</i>								
=1 if at least some problems	0.07**	(0.03)	0.03	(0.04)	0.04*	(0.03)	-0.04	(0.03)
<i>Child's fruit consumption</i>								
=1 if cm has at least one portion of fruit per day	-0.02	(0.03)	-0.03	(0.04)	0.00	(0.02)	0.03	(0.05)
<i>Maternal grandfathers' SES when respondent was aged 14</i>								
=1 if was not working	0.02	(0.02)	0.02	(0.04)	-0.01	(0.02)	0.00	(0.04)
=1 if managerial/ professional occupation	-0.03**	(0.01)	0.01	(0.04)	-0.01	(0.01)	0.03	(0.03)
=1 if technical, semi-routine or routine occupation	-0.01	(0.01)	0.05*	(0.03)	-0.00	(0.01)	0.01	(0.03)
=1 if can't remember or father died	0.00	(0.02)	0.03	(0.04)	-0.01	(0.02)	0.03	(0.05)
Constant	0.55**	(0.23)	-0.69	(0.77)	0.13	(0.15)	0.06	(0.45)
Cohort member/year-observations	14 842.00		3122.00		22 559.00		4372.00	
Number of cohort members	7796.00		1936.00		8152.00		2146.00	
Number of instruments used	71.00		71.00		73.00		73.00	
Overall F (Prob > F)	8.49	(0.00)	4.50	(0.00)	7.19	(0.00)	4.36	(0.00)
Hansen test of overidentification (Prob > χ^2)	22.17	(0.00)	12.11	(0.00)	5.52	(0.06)	0.64	(0.73)
Hansen test excluding group (y_{t-1}) (Prob > χ^2)	0.00	(.)	0.00	(.)	3.17	(0.08)	0.54	(0.46)
Difference (y_{t-1} , $H_0 = \text{exogenous}$) (Prob > χ^2)	22.17	(0.00)	12.11	(0.00)	2.35	(0.13)	0.10	(0.75)

Note: Own calculations based on MCS sweeps 1 to 4. Balanced panel containing all households. * p<0.10, ** p<0.05, *** p<0.01

Although the analysis provides interesting results that are in line with the recent literature there are some econometric issues that have to be discussed. Autocorrelation in the idiosyncratic error term e_{hit} changes instruments of the lagged endogenous variable to be invalid. Given the short panel it is not possible to test for second order autocorrelation for either health indicator. Despite autocorrelation there is another threat to the validity of GMM. If the instruments are not exogenous, results might be misleading. The Hansen-test statistic can be used to evaluate the joint validity of instruments although it might be less reliable because it could be weakened as the number of instruments increases. The Hansen-test fails to confirm the joint validity of instruments with respect to the number of health problems but affirms validity of instruments regarding the number of hospital admissions. Nonetheless, I believe that the results are trustworthy given the accordance to previous studies and to theoretical considerations. Hansen-test statistics also provide the possibility to test a subset of instruments. Again the applicability of this procedure is rather limited due to the short panel. Future research should include additional sweeps in order to evaluate the issues discussed above.

2.6 Discussion and conclusion

Recent research on the child health/ family income gradient has focused on the dynamics of child health (for example Murasko, 2008 and Khanam et al., 2009) and parental health as a key determinant of the gradient and child health (for example Propper et al., 2007 and Khanam et al., 2009). While former empirical analyses have not been able to explain the gradient by parental health (e.g. Case et al., 2002) in a static model setup, findings provided by Khanam et al. (2009) indicate that the gradient can be explained by parental health in a dynamic model setting.

In contrast to the existing literature this is the first analysis that is able to apply econometric methods specifically designed to deal with dynamic models to the issue of the income gradient. In addition to that, this is the first study that differentiates between different household types. The Millennium Cohort Study, a comprehensive British birth cohort data set, provides a sound base for considering various factors that might affect child health like habitation, nutrition, care and parental health, among others. I focus on the number of longstanding health conditions as the main indicator of child health. The cross-sectional results provide evidence for an increasing but flattening gradient as children age for both household types. The protective effect of permanent family income is more pronounced for single parent households. It turns out that maternal physical health explains a substantial percentage of the gradient although it does not consistently disappear for different child ages. I use system GMM (see Arellano and Bover, 1995; Blundell and Bond, 1998) to examine path dependency of child health and the impact of permanent income in a longitudinal perspective. The results show substantial path dependency for both family types as well as for both health indicators. Considering unobserved heterogeneity and lagged health status leads to a substantial reduction of the gradient. As in cross-section, the inclusion of input factors other than maternal health cannot explain the gradient with respect to two parent families. The gradient is less stable when considering lone parent families. When indicators of maternal physical and mental health are taken into account the income gradient disappears. These results are in line with those found by Khanam et al. (2009) and at least in part explain the deviation from former analyses. Future research should involve more sweeps in order to evaluate the robustness of the results presented here. In addition to that, it should aim at finding answers to the question of how maternal health is linked to child health.

The results are interesting from a policy point of view in several ways. First, path dependency of child health stresses the importance of early interventions aiming at improvements of child health. The literature on human capital accumulation has already formulated this

demand, because early investments show higher returns (see for instance Heckman, 2006). In addition to that, dynamic estimation decreases the gradient in absolute terms, which might indicate that permanent income or the family's socioeconomic status influence the intertemporal transmission of health or, that both socioeconomic status and child health are affected by unobserved variables. A growing body of research finds maternal health to be a key determinant of child health. The mechanisms linking maternal health to child health are, however, not clear. Perhaps bad health prevents parents from providing optimal care to their children. Irrespective of the causes driving this association, policies should also aim at improving parental health which might also create positive externalities. Furthermore, the results question policies relying on income redistribution in order to improve child well-being.

Chapter 3

Does illness have an impact on child development?

3.1 Introduction

It is well known that early health endowment is related to economic outcomes in later life. For example, poor health in childhood is associated with lower educational achievement, average earnings and labour force participation in adulthood (see for instance Currie, 2009). While child health is intrinsically relevant, empirical findings and theoretical investigations additionally suggest that health is essential to the accumulation of human capital over the course of an individual's life. Furthermore, inequalities in health (e.g. Case et al., 2002) as well as individual skills (e.g. Cunha et al., 2005) can be traced back to early life and Currie (2009) points out that health is important with respect to the intergenerational transmission of socioeconomic status. Further investigations on the impact of child health on developmental outcomes are crucial in order to provide additional empirical evidence, thereby strengthening the understanding of human capital accumulation and in order to provide guidance for the design of political measures aiming at dismantling social inequalities.

While there is a broad body of research concerned with this issue, empirical evidence is inconclusive and causal inference is impeded due to several methodological issues (see for instance Kaestner and Corman, 1995) like, for instance, unobserved heterogeneity, choice inputs and reversed causation. Various studies from the end of the 1970s to the mid-1990s (for example Edwards and Grossman, 1979; Shakotko et al., 1980; Rosenzweig and Wolpin, 1994; Korenman et al., 1994) provide evidence in favour of worse health having a robust negative impact on child development and educational achievements. In contrast,

Kaestner and Corman (1995) do not find adverse health effects. Behrman (1996) reviews empirical evidence for developing countries and concludes that there is some evidence for a causal impact of health on educational achievement, although a large number of studies are methodologically inadequate. Behrman and Lavy (1997) provide results based on fixed effects and instrumental variable regression and argues against a significant influence. While earlier studies focus on physical health on the one hand and cognitive skills and educational achievements on the other hand, more recent studies take mental health and other developmental outcomes into account. For instance, Currie and Stabile (2006) analyse the effect of the attention deficit hyperactivity disorder (ADHD) on child development. Their results show a significant negative impact of mental health problems on test scores and schooling attainment and indicate that these might exhibit a stronger impact than physical conditions. Ding et al. (2009) examine the effect of depression, ADHD and obesity on academic performance throughout growing up. They find a significant negative impact of poor health on achievement for female young adults, but not for males.

This study contributes to the existing literature in several ways: firstly, it challenges crucial issues in empirical modelling by employing an innovative econometric approach, thereby allowing for causal inference; secondly, the analysis covers physical and mental child health as well as a broad range of cognitive and noncognitive developmental outcomes and thus goes beyond existing research; thirdly, the empirical analysis uses data from the Millennium Cohort Study (MCS), which offers comprehensive British birth cohort data and allows us to cover a broad range of control variables.

The analysis employs two measures of physical health, namely the number of chronic conditions and hospital admissions. Mental health is captured by the hyperactivity/inattention subdomain of the Strengths and Difficulties Questionnaire (SDQ). Measures of cognitive abilities are mainly derived from the British Ability Scales (BAS) whereas noncognitive skills are assessed by several subdomains of the SDQ and the Child Self Regulation - Child Social Behaviour Questionnaire. The causal relation between these developmental outcomes and child health might be bidirectional. Therefore estimates are biased due to reversed causality. I tackle this problem by focusing on the intertemporal effect of child health, that is to say, by analysing the impact of health in the previous period on current developmental outcomes. Furthermore, lagged health might be affected by variables that are also related to developmental outcomes or unobserved characteristics. The latter is also likely to pose a problem with respect to cognitive and noncognitive skills. These issues are addressed by an estimation of a system of equations using a Bayesian approach. This system consists of one equation referring to developmental achievements and a second

equation related to health outcomes. Both equations recognise specific unobserved characteristics that are allowed to be correlated over equations as there might be unobserved characteristics that are related to both. The resulting two-dimensional integral evaluated by Bayesian methods as conventional maximum likelihood procedures have failed to converge.

The results show marked differences between children living in lone and two parent households. While there is almost no significant effect of physical health on cognitive and noncognitive skills among children living with single parents, chronic conditions exhibit significant negative effects on a broad range of noncognitive outcomes and cognitive skills related to spatial thinking among children living with both parents. Mental health in terms of hyperactivity and inattention has robust adverse effects on cognitive and noncognitive abilities irrespective of household type and child age. The analysis also indicates that failing to take unobserved heterogeneity into account results in biased estimates and an underestimation of adverse effects.

The remainder of this paper is structured as follows. Section (3.2) provides a critical assessment of previous research and prepares the presentation of the empirical approach in section (3.4). The data set is described in section (3.3). Maximum likelihood estimates without allowing for unobserved heterogeneity are presented in subsection (3.5.1), while Bayesian estimates which consider unobserved characteristics and are thus supposed to be causal are discussed in (3.5.2). The results are summarised and discussed in section (3.6). In the course of this conclusion, I also discuss issues related to future research as well as policy implications.

3.2 Literature

Several studies provide evidence for the long term impact of poor childhood health (see Currie (2009) for a recent survey) on educational achievements in later life, various labour market outcomes and adult health. However, the mechanisms linking health in early life to adult outcomes are not yet completely understood. Following the theoretical model outlined by Cunha and Heckman (2007) and Heckman (2007), on one side, (child) health is a specific type of human capital and, on the other, constitutes an input in the production of (child) cognitive and non-cognitive abilities. Poor child health might translate into poor developmental outcomes at several stages during growing up and thereby additionally impair specific features of human capital accumulation like self-productivity and dynamic complementarity.

The evidence concerning the impact of child health on child development is mixed. Early studies almost consistently find a positive relationship between various health measures and indicators of child development and educational achievements. Edwards and Grossman (1979) analyse a sample of US-American children in the age group of six to eleven. Their cross-sectional results indicate a positive relation between different health indicators and children's intelligence and schooling achievement. Another investigation on US-American children has been conducted by Shakotko et al. (1980). They analyse the effects of childhood health and development (six to eleven years old) on adolescent health and developmental outcomes (twelve to seventeen years old). Using two points in time, they address the problem of reversed causality and provide evidence on significant effects running in both directions, with stronger effects running from developmental indicators to health. Rosenzweig and Wolpin (1994) study the effect of maternal schooling on children's human capital. Their analysis of a sample of children aged three to eight accounts for unobserved endowments and includes birth weight as a measure of initial health stock. They find a positive effect of birth weight on children's Peabody Individual Achievement Test-scores (PIAT), but not on children's performance in Peabody Picture Vocabulary Tests. Korenman et al. (1994) analyse the effect of long-term poverty in child socioemotional and cognitive development using a sample of children up to the age of twelve. Their results indicate a negative impact of low birth weight or low height at birth, and low height-for-age or low weight-for-age on a broad range of indicators of children's socioemotional and cognitive development.

Kaestner and Corman (1995) review several other studies in addition to those presented above. They conclude that the findings could be misleading since they might merely represent correlations rather than causation. In essence they criticize former studies as having been unable to deal with unobserved heterogeneity, choice inputs and reversed causation. Their own empirical analysis uses data on children in the age group of five to nine years and employs fixed effects and instrument variable estimation strategies in order to overcome the aforementioned shortcomings. In contrast to preceding research, their results indicate no significant impact of direct health measures on PIAT-scores and a weak impact of anthropometric indicators. In opposition to Shakotko et al. (1980), they come to the conclusion that child health is exogenous with respect to child development. However, they have to admit that their instrument variable estimations are laden with doubt due to weak instruments. Behrman (1996) discusses several methodological issues and reviews experimental and non-experimental evidence for developing countries. Although, he regards the majority of studies under review being deficient, he comes to the conclusion

that there is systematic evidence in favour of child health having an impact on educational achievement. Behrman and Lavy (1997) analyse Ghanaian data with respect to the effect of child health on children's schooling success measured by cognitive achievement scores. Their analysis uses anthropometric measures of child health, e.g. height and body mass index. Their instrumental variable estimates show a significant impact of health on educational outcomes. In addition to that, they estimate family and community fixed effects models which show no significant influence of health.

Recent studies provide more reliable evidence on the causal impact of child health. Currie and Stabile (2006) use data on Canadian and US-American children aged four to twelve years. They explore the effect of ADHD on child development and compare its effect to physical conditions. In order to cope with unobserved heterogeneity Currie and Stabile (2006) employ a siblings fixed effects strategy. Reversed causality is ruled out by regression of hyperactivity scores in 1994 on outcomes in 1998. Their ADHD assessment is not based on diagnosis but on a screener questionnaire. In addition to that, they use parental assessed child health and chronic conditions as indicators for child health. Developmental outcomes are measured by math and reading test scores, grade repetition rates and delinquency, among others. Their results show a significant negative impact of mental health problems on test scores and schooling attainment for both boys and girls. Additionally, these might be of even greater relevance than physical conditions. Another promising study comes from Ding et al. (2009). They study the effect of depression, ADHD and obesity on academic performance during adolescence using data from the Georgetown Adolescent Tobacco Research study in conjunction with data on genetic markers. The exogenous variation provided by genetic markers, which are linked to certain biological predispositions, provides instruments to net out nurture influences on health within an instrument variable approach. More precisely, they estimate a system of equations incorporating equations for academic achievement, health and health behaviour. Their results show a significant negative impact of poor health on achievement for female adolescents, but not for males. Del Bono and Ermisch (2009) explore the effect of birth weight on children's cognitive and behavioural outcomes using data from the MCS. They are one of the few that adopt the multi-stage framework suggested by Cunha and Heckman (2007) and Heckman (2007). Thus their model contains two stages according to the ages three and five, respectively. Since birth outcomes, e.g. birth weight and breathing problems at birth, are assumed to be endogenous due to their relation to unobserved maternal characteristics, they apply an eliminant estimator (3SLS) which assumes a common unobservable variable which is substituted out. Socioeconomic characteristics serve as instruments in

the instrument variable approach. Their results show significant effects on child outcomes on children aged three years. There is no direct impact on outcomes at age five, rather indirectly through the impact of preceding child development. Although information on physical health conditions is available the authors have not included physical health conditions in their analysis because of their identification strategy.

3.3 Data

The Millennium Cohort Study is a British birth cohort study that follows about 19,000 children born in the years 2000 and 2001 through their lives. Starting with the first sweep in 2001 and 2002, families are interviewed every two or three years so that at present four sweeps are available. The data covers various topics like family socioeconomic background, parental and child health, child care and development, as well as parenting activities (for a detailed description see Hansen, 2012).

The subsequent analysis uses the samples of children between the ages of five and seven in order to estimate the effect of health on child cognitive and noncognitive development. I restrict the analysis to this age group for reasons of identification, because identification of the causal effect is complicated by several issues (see sections 3.2 and 3.4). Assuming a temporal structure of human capital accumulation where health results in a delaying effect on development, avoids problems related to the analysis of contemporary effects and takes up theoretical considerations from Cunha and Heckman (2007) and Heckman (2007). Although a more technical discussion follows in section (3.4), a short outline of the modelling framework might facilitate the subsequent presentation of data. The empirical model comprises a development equation with lagged health and other variables (mostly from period t) as inputs and a health equation where health is measured in $t-1$ and inputs essentially come from $t-1$. This means for example, that health data with respect to children aged five comes from the age of three. In addition to this, both equations include maternal labour force status, which is potentially subject to endogeneity. Thus, I use lagged labour force status in order to circumvent this problem. With respect to children of the age of five, maternal labour force status in the health equation is thus derived from the first sweep.

The next section describes development and health indicators (3.3.1) and provides evidence on the raw relationship between both domains of human capital. Section (3.3.2) describes the set of control variables that are employed in the regression analysis. In the following, the sample is restricted to children that have no missing items (listwise deletion) and

that are present in every sweep (balanced panel). In contrast to Violato et al. (2011), for example, and others who examine the determinants of child development and consider inputs supplied by mothers and fathers, I focus on maternal investments in child health and development. Including paternal inputs would lead to significant reduction of sample size and probably result in biased estimates if paternal information is not missing at random.

3.3.1 Child development and child health

The MCS offers a broad set of indicators of child development at different stages of life (for more details see Hansen, 2012 and Johnson, 2012).

I measure cognitive outcomes of children aged five with several subtests of the British Ability Scales (BAS). These comprise the Naming Vocabulary (NV), the Picture Similarity (PS) and the Pattern Construction (PC) subtests. The first subtest assesses children's expressive language skills and general language development. During the test a child is shown pictures and they have to name the different objects in the pictures. The Picture Similarity test measures a child's ability to solve problems. The task is to assign a card to the most similar card out of four other cards. The third subtest measures a broad set of skills like spatial awareness, dexterity and coordination. In the test, the child has to assemble flat squares or solid cubes according to a specified design.

Cognitive abilities in seven year olds are assessed by two BAS subtests, Pattern Construction and Word Reading (WR), and the National Foundation for Educational Research (NFER) Number Skills test. The Word Reading subtests assesses the English reading ability of a child. The task is to read aloud a series of words in an increasing order of difficulty. The NFER Number Skills test is based on the NFER Progress in Maths test and is designed to assess child's numeracy skills. In particular, it measures a child's basic ability to solve mathematical tasks.

Noncognitive abilities are measured by the Child Self Regulation – Child Social Behaviour Questionnaire (CSR) and the Strength and Difficulties Questionnaire (SDQ) for both age groups (for more details see Johnson, 2012). They provide assessments of different subdomains of noncognitive development. The subdomains covered by the CSR are (i) independence and self regulation, (ii) emotional dysregulation and (iii) cooperation. The latter domain is only partially covered for five year old children, as only two of five items have been collected. The subdomains covered by SDQ are (i) emotional symptoms, (ii) conduct problems, (iii) hyperactivity/ inattention, (iv) peer problems and (v) prosocial behaviour. In accordance with recent economic research, I treat hyperactivity as a mental disorder and therefore belonging to health capital rather than noncognitive abilities (see,

for instance, Currie and Stabile, 2006 and Ding et al., 2009).

Table 3.1: Development of children aged five to seven

	Age 5				Age 7			
	mean	sd	min	max	mean	sd	min	max
Lone parent								
<i>Cognitive</i>								
BAS NV	107.34	13.80	10	170				
BAS PS	81.80	12.33	10	119				
BAS PC	86.41	19.44	10	143	114.80	15.70	10	177
BAS WR					100.95	31.18	10	191
NFER Math					9.38	2.87	0	15
<i>Noncognitive</i>								
SDQ ES	1.50	1.57	0	7	1.73	1.88	0	9
SDQ CP	1.86	1.61	0	8	1.70	1.68	0	8
SDQ PR	1.39	1.51	0	9	1.45	1.63	0	10
SDQ PB	8.38	1.69	1	10	8.50	1.63	0	10
CSR IND	2.52	0.35	1.20	3	2.50	0.36	1.20	3
CSR ED	1.43	0.52	1	3	1.79	0.47	1	3
CSR COO	1.56	0.45	0	2	2.56	0.33	1	3
N	1422				1568			
Two parents								
<i>Cognitive</i>								
BAS NV	111.06	14.36	10	170				
BAS PS	83.11	11.06	10	119				
BAS PC	89.92	18.16	10	149	118.38	15.99	10	173
BAS WR					110.00	29.44	10	222
NFER Math					9.98	2.67	0	15
<i>Noncognitive</i>								
SDQ ES	1.21	1.45	0	10	1.36	1.62	0	10
SDQ CP	1.33	1.38	0	10	1.19	1.40	0	10
SDQ PR	0.97	1.31	0	10	1.01	1.42	0	10
SDQ PB	8.47	1.58	0	10	8.70	1.54	1	10
CSR IND	2.54	0.33	1	3	2.53	0.36	1.20	3
CSR ED	1.30	0.47	1	3	1.66	0.46	1	3
CSR COO	1.60	0.42	0	2	2.63	0.32	1.40	3
N	7322				7047			

Note: Own calculations based on MCS. BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table (3.1)¹ displays the summary statistics of the development indicators by age and type of household. Children in lone parent households seem to perform worse in cognitive tests than children in two parent households. In addition to that, they exhibit worse values with respect to assessments of noncognitive abilities based on the SDQ, with the exception of prosocial behaviour. However, the observed differences are likely to be insignificant given the standard deviations.

Table 3.2: Lagged health of children aged five to seven

	Age 5				Age 7			
	mean	sd	min	max	mean	sd	min	max
Lone parents								
# chronic	0.21	0.49	0	4	0.24	0.54	0	4
# hospital	0.34	0.93	0	10	0.17	0.61	0	10
SDQ HA	4.24	2.40	0	10	3.60	2.42	0	10
N	1422				1568			
Two parents								
# chronic	0.17	0.43	0	4	0.23	0.53	0	5
# hospital	0.25	0.73	0	10	0.16	0.57	0	10
SDQ HA	3.65	2.27	0	10	3.04	2.29	0	10
N	7322				7047			

Note: Own calculations based on MCS. # chronic: number of long-standing health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score.

The latent variable child health is assessed by two manifest indicators, namely, the number of longstanding health conditions and the number of hospital admissions. I focus on these rather objective measures for two reasons: firstly, subjective measures have often been subject to criticism (for example Johnston et al., 2010) due to the possibility of reporting bias, and secondly, these child health indicators facilitate intertemporal comparisons of the impact of health on developmental outcomes as subjective parental assessments are not available for children under five years. In addition to that, I also consider children’s mental health. As noted above, I prefer the hyperactivity/ inattention subdomain of the SDQ rather than diagnosed cases, since diagnoses may be affected by other variables than the specific mental condition. It will be of special interest to compare the impact

¹The descriptive tables within this section show the results of a balanced sample resulting after listwise deletion which ignores missing values on hyperactivity risk factors. These are only relevant for the analysis of the influence of mental health. Listwise deletion considering those variables would unnecessarily reduce sample size for the analysis of the effect physical health has on developmental outcomes.

of physical health to that of mental health, as recent studies find that mental conditions exhibit a greater influence than physical health (Currie and Stabile, 2006 and Ding et al., 2009). Table (3.2) provides basic descriptive statistics for the three health measures that are considered in the following analysis. Again, children in lone parent households seem to have worse outcomes than children in two parent families. This holds true for physical as well as mental health. However, differences with respect to physical health diminish as children get older, while children in two parent households still seem to have lower hyperactivity or inattention scores on average. Comparing means and standard deviations to each other indicates overdispersion concerning the number of hospital admissions.

3.3.2 Other Variables

This paragraph describes the variables that are employed below in order to control for as much heterogeneity as possible. According to the econometric model described by equations (3.3) and (3.4) in section (3.4) these variables are mostly enclosed in the vectors X_t or X_{t-1} . The control variables can be grouped into four broad categories of factors that presumably influence both child health and child development. Table (A.3.1) in the appendix presents summary statistics of these variables.

The first group comprises standard controls for demographics and socioeconomic status. Income is included in the form of logarithmized permanent family income which is derived from the average imputed household income of all available sweeps (for details about the imputation procedure see Hansen, 2012). Maternal education is measured by the highest achieved level of national vocational qualification (NVQ). Mother's age at birth is included in order to control for a variety of unobserved maternal characteristics, like maturity level or potential health risks during birth. Basic child characteristics such as sex of the child, age in years and child's ethnicity (if non-white) are included as well as a child's initial health endowment, which is depicted by a birth weight lower than 2500g. Additionally, I control for household size, the number of older siblings and the country of interview. Although the questions have been answered by the natural mother of the child in the vast majority of cases, a variable indicating the respondent's relationship to the child is included in order to control for potential biases in response behaviour.

The second group refers to maternal time inputs and the quality of care. Since there is no direct measure of the quantity of time the mother spends with child, it is derived from a subject assessment of whether there is at least sufficient time available. In addition to this, hours worked provides an indirect measure of time budget constraints. Labour force status is subject to potential endogeneity such that the analysis uses lagged values. The

type of child care, for instance whether formal or informal care, partially reflects maternal time inputs as well as the quality of external care. In addition to the quantity of time, I also consider measures of the quality of time inputs. The length of breast feeding serves as an indicator of the quality of initial maternal time spent with the child. Parenting style is described by whether the child is smacked or told off if they are badly behaved and whether there is a regular bedtime. Additionally, the MCS provides information on several intellectual stimulating activities that might also be related to a caring environment that fosters healthiness. I consider the amount of time watching television or videos and how often the mother reads to the child. I restrict myself to two indicators in order to deal with the trade-off between including more detailed information and complexity of the model or duration of the estimation procedure.

The third group of variables relates to maternal health and health-related behaviour. This comprehends physical health (whether a longstanding illness is present) and mental distress (a binary variable indicating a Kessler K6 score above 13). Health-related behaviour is described by current smoking status and whether the respondent drinks alcohol at least three times a week.

The final group covers variables that cannot directly be attributed to one of the other groups. These include child's fruit consumption, housing tenure and maternal grandfather's socioeconomic status when the mother was aged fourteen. Variables contained in this group are supposed to account for nutritional intake and unmeasured socioeconomic background variables. Although the model is already identified by functional form and temporal structure, I additionally include an indicator of whether there are problems with damp in the walls. This refers to Z_{t-1} in (3.4) and, thus, is supposed to influence child development only indirectly through physical health (damp might be related to respiratory diseases). Z_{t-1} may also include risk factors for hyperactivity in order to support identification with respect to mental health. While it might be difficult to find single variables solely associated with hyperactivity disorder and not with (cognitive) development, I include a broad set of variables that might increase the risk of developing hyperactivity symptoms. Without claiming a comprehensive discussion of the relevant psychological literature, causes of ADHD can most likely be explained by a bio-psycho-social model as potential risk factors may be specific genes, environmental or social circumstances. The National Collaborating Centre for Mental Health (2009, section 2.4) provides a brief overview of explanatory approaches and empirical evidence. Accordingly, specific genetic factors exhibit strong influences which are captured by the terms representing unobserved heterogeneity. Control variables for environmental factors like maternal smoking and alco-

hol consumption during pregnancy and early childhood as well as smoking in the children's room are considered. Premature birth and low birth weight may also increase the risk of developing ADHD (see for instance Thapar et al., 2012). Premature birth is incorporated in terms of gestational time. Although National Collaborating Centre for Mental Health (2009, section 2.4) points out that the direction of the causal relationship between social factors and ADHD is not clear, the model includes several indicators of the mother-child relationship at early childhood (an index of mother-to-infant attachment (age one), child-parent relationship (age three) as well as an index of physical and psychological maltreatment of children (age three); see Johnson, 2012 for more details). Additionally, maternal mental health is considered in terms of experiencing high levels of psychosocial distress when the child was one year old.

3.4 Econom(etr)ic Model

Equation (3.1) represents a linearized child ability production function, where y_{it} is a vector of different cognitive and noncognitive child abilities. Developmental outcomes are produced by different input factors, like child health (h_{it}), factors that are likely to influence child health (X_{it}), too, and factors specific to cognitive and noncognitive outcomes (W_{it}). η_{it} is an idiosyncratic error term.

$$y_{it} = \beta_0 + \gamma_1 h_{it} + X_{it}\beta'_1 + W_{it}\beta'_2 + \eta_{it} \quad (3.1)$$

Estimation of (3.1) involves several problems due to endogeneity of child health which is caused by reversed causation and unobserved heterogeneity. These issues become even more obvious if we consider a system of two equations, where equation (3.2) describes the production of child health. Z_{it} depicts variables influencing child health but not development.

$$h_{it} = \delta_0 + \gamma_2 y_{it} + X_{it}\delta'_1 + Z_{it}\delta'_2 + \nu_{it} \quad (3.2)$$

Reversed causation has been a controversial issue in preceding research as it hampers causal interpretation (for instance Shakotko et al. (1980); Kaestner and Corman, 1995; Behrman and Lavy, 1997; Currie and Stabile, 2006). With respect to equation (3.2), reversed causation would imply that γ_2 is nonzero. In order to solve this issue, I assume that child health has a one period lagged impact on cognitive and noncognitive child outcomes. Considering the delayed influence of health has several empirical and theoretical

advantages over modelling the effect of contemporary health. Firstly, this approach bases causal claims on the concept of Granger causality (Granger, 1969) by imposing a temporal structure. Secondly, this structure is in line with theoretical models of human capital accumulation (e.g. Cunha and Heckman, 2007 and Heckman, 2007). Thirdly, although present health conditions might have an effect on test scores, cumulative effects of health might be even more important from a political point of view as longstanding health conditions persistently lower the stock of human capital.

Considering the lagged influence of health yields the following system of equations:

$$y_{it} = \beta_0 + \gamma_1 h_{it-1} + X_{it} \beta_1' + W_{it} \beta_2' + \eta_{it} \quad (3.3)$$

$$h_{it-1} = \delta_0 + X_{it-1} \delta_1' + Z_{it-1} \delta_2' + \nu_{it-1} \quad (3.4)$$

Estimates of γ_1 are still biased if there are any unobserved variables influencing the outcomes of interest, since then $cov(h_{it-1}, \eta_{it}) \neq 0$. In addition to that, η_{it} and ν_{it-1} are likely correlated due to unobserved heterogeneity affecting both outcomes. In particular, we can think of η_{it} and ν_{it-1} as composite errors:²

$$\eta_{it} = \zeta_i + \epsilon_{it} \quad (3.5)$$

$$\nu_{it-1} = \xi_i + \tau_{it-1} \quad (3.6)$$

While ϵ_{it} and τ_{it-1} represent idiosyncratic errors, ζ_i and ξ_i are child specific terms capturing unobserved heterogeneity in the production of developmental and health outcomes. Due to shared unobserved variables, such as genes or environmental factors for example, these random effects are supposed to be correlated. ζ_i and ξ_i are described by a bivariate normal distribution:

$$\zeta_i, \xi_i \sim \mathcal{N} \left(\begin{pmatrix} 0 \\ 0 \end{pmatrix}, \begin{pmatrix} \sigma_\zeta^2 & cov(\zeta_i, \xi_i) \\ cov(\zeta_i, \xi_i) & 1 \end{pmatrix} \right), \quad (3.7)$$

where the variance of ξ_i is set to one for reasons of identification. While the model explicitly allows for unobserved heterogeneity, I make use of the comprehensive data provided

²Recent econometric literature (for example Deb and Trivedi, 2006) advocates a latent variable representation of unobserved heterogeneity where the latent variable loads on one equation with factor loading λ , while the other factor loading is constrained to one for reasons of identification:

$$\begin{aligned} \eta_{it} &= \lambda \zeta_i + \epsilon_{it} \\ \nu_{it-1} &= \zeta_i + \tau_{it-1} \end{aligned}$$

Nonetheless, the chosen specification seems to be more appropriate for the problem at hand.

by the MCS in order to capture as much observable individual heterogeneity as possible. In the following, I assume that ϵ_{it} is normally distributed and hence production of developmental outcomes (3.3) can be described by a linear regression model:

$$f_y(y_{it}|h_{it-1}, X_{it}, W_{it}, \sigma^2, \zeta_i) = \frac{1}{(2\pi\sigma^2)^{\frac{n}{2}}} \cdot \exp\left(-\frac{1}{2\sigma^2} \sum_{i=1}^n (y_{it} - \mu_y)^2\right), \quad (3.8)$$

where μ_y is equal to the conditional expectation of equation (3.3):

$$\mu_y = \beta_0 + \gamma_1 h_{it} + X_{it}\beta'_1 + W_{it}\beta'_2 + \zeta_i. \quad (3.9)$$

Physical child health is measured by the number of health conditions or hospital admissions. As stated above these count variables might exhibit overdispersion. The negative binomial-2 distribution is flexible enough to consider equi- as well as overdispersion:

$$f_h(h_{it-1}|X_{it-1}, Z_{it-1}, \xi_i) = \frac{\Gamma(h_{it-1} + \psi)}{\Gamma(\psi)\Gamma(h_{it-1} + 1)} \left(\frac{\psi}{\mu_i + \psi}\right)^\psi \left(\frac{\mu_i}{\mu_i + \psi}\right)^{h_{it-1}}, \quad (3.10)$$

where μ_h is the conditional expectation of h_{it-1}

$$\mu_h = \exp(\delta_0 + X_{it-1}\delta'_1 + Z_{it-1}\delta'_2 + \xi_i) \quad (3.11)$$

and ψ is an overdispersion parameter with $\psi \equiv \alpha^{-1}$ and $\alpha > 0$.³ For the sake of simplicity, I assume mental health production can be described by a linear regression model which implies that τ_{t-1} follows a normal distribution.

Joint estimation of the system of equations given by (3.8), (3.9), (3.10) and (3.11) leads to the following sample likelihood function:

$$L = \prod_{i=1}^N f_y(y_{it}|h_{it-1}, X_{it}, W_{it}, \zeta_i) f_h(h_{it-1}|X_{it-1}, Z_{it-1}, \xi_i), \quad (3.12)$$

which involves integration over the distributions of unobserved heterogeneity:

$$L = \prod_{i=1}^N \int_{-\infty}^{\infty} \int_{-\infty}^{\infty} f_y(y_{it}|h_{it-1}, X_{it}, W_{it}, \zeta_i) f_h(h_{it-1}|X_{it-1}, Z_{it-1}, \xi_i) g_\zeta(\zeta_i) g_\xi(\xi_i) d\zeta_i d\xi_i \quad (3.13)$$

³The WinBugs code for running negative binomial regression models heavily draws on lecture notes from Weiss (2008).

The resulting two dimensional integral usually has no closed form solution and demands for numerical integration using Gauss Hermite quadrature, adaptive quadrature or simulation methods. I have applied the generalized linear latent and mixed models-framework (Rabe-Hesketh et al., 2004a) using the STATA gllamm package (Rabe-Hesketh et al., 2004b), which uses adaptive quadrature and a maximum simulated likelihood approach (see for example Train, 2009) to equation (3.13). Both maximum likelihood based algorithms failed to converge.

Bayesian estimation procedures avoid the simulation of multivariate integrals. In addition to that, Train (2009) points out that Bayesian procedures exhibit convenient properties on more general conditions. The basic idea behind Bayesian econometrics is to update initial beliefs about the model parameters (θ) using additional information that is derived from observed data. According to Train (2009) initial beliefs about θ are called prior distribution which is represented by the density $k(\theta)$. The updated beliefs, referred to as the posterior distribution, are represented by the density $K(\theta|Y)$. Bayes' rule links the initial ideas to the updated beliefs:

$$K(\theta|Y) = \frac{L(Y|\theta) k(\theta)}{L(Y)} \quad (3.14)$$

The likelihood ($L(Y|\theta)$) that one observes the data given parameters θ constitutes the essential linkage between initial and updated beliefs. Since equation (3.12) directly relates to $L(Y|\theta)$, it becomes obvious that the simulation of the two dimensional integral in (3.13) is avoided. $L(Y)$ denotes the marginal probability of Y with $L(Y) = \int L(Y|\theta) k(\theta) d\theta$ and normalises the posterior distribution. Initial beliefs can be based upon existing research or vague prior distributions. As has been shown in section (3.2), there is no consensus on the causal relationship between health and child development. In addition to that, it is a priori not clear which signs and magnitudes have to be assigned to the parameters given potential correlations between explanatory variables. I therefore use diffuse priors.

The mean of the posterior distribution, which is typically of interest, is given by

$$\bar{\theta} = \int \theta K(\theta|Y) d\theta \quad (3.15)$$

and its calculation usually demands for simulation. The simulated mean is consistent and asymptotically normal for a given number of draws. Furthermore, it is equivalent to maximum likelihood as the number of draws rises with sample size. I adopt Monte Carlo Markov Chain (MCMC) methods, in particular Gibbs sampling and the Metropolis-Hasting algorithm, using the WinBUGS program (Spiegelhalter et al., 2007). The data is prepared

and initial values for estimation are generated using STATA 12.1. Thompson et al. (2006) provide several STATA programs that allow to run WinBUGS from within STATA.

⁴ In addition to assumptions concerning the functional form and error structure, model implementation involves choices concerning previous information in terms of prior distributions as well as the length of the burn-in period and the number of iterations after this initial phase. Due to model complexity and ambiguous findings from the existing literature, I widely apply normal distributions as priors for regression parameters. A uniform distribution with a range between zero and ten serves as a prior distribution for the variance of ζ_i , while the variance of ξ_i is restricted to one. The prior distribution of the error correlation is given by a uniform distribution with a range from minus one to one. The variances of ϵ_{it} and τ_{it-1} are based on a precision parameters with a gamma prior distribution. The overdispersion parameter of the negative binomial regression model is based on a gamma prior whose parameters follow a normal distribution for computational reasons. The maximum likelihood estimates underlying those summarized in table (3.3) provide initial values for the MCMC procedure in order to facilitate convergence.

In order to avoid an influence of the initial values on the final results, a burn-in phase has to be chosen. This initial part of the chain is used for stabilisation and is discarded by WinBUGS. Due to high complexity of the model the resulting sample is characterised by high autocorrelation. This can be reduced by keeping only every n th iteration. Initial simulations showed that autocorrelation is significantly reduced by retaining every 60th iteration. In order to achieve sufficient sample sizes, the pre-convergence part and subsequent simulations comprise 60,000 and 600,000 iterations. This leaves 1,000 iterations for the burn-in chain and a sample of 10,000 iterations for calculation of the final results. According to the rule of thumb, presented by Spiegelhalter et al. (2007), the latter figure is also high enough to obtain accurate posterior estimates. According to this guideline, the Monte Carlo error should be less than 5% of the sample standard deviation.⁵

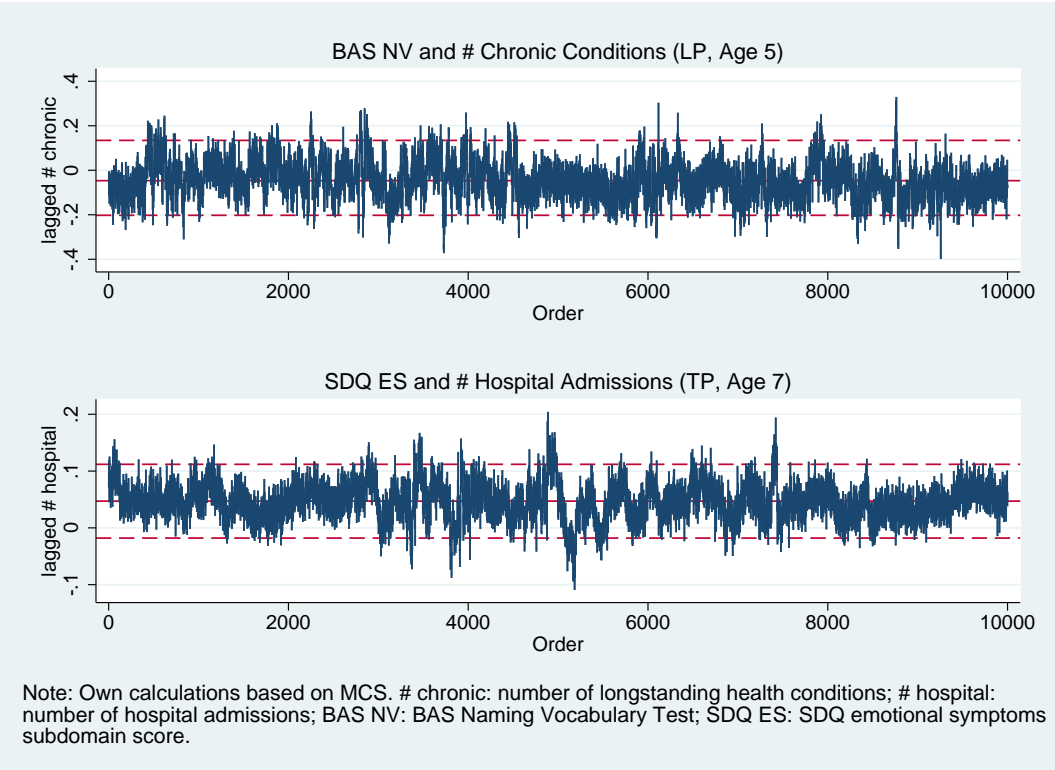
Convergence is critical with respect to MCMC procedures. There are several strategies to assess convergence, however their applicability is restricted since these are mostly graphical assessments. Running more than one chain is not possible due to high computational expense. Monitoring convergence of every parameter is impracticable because of the high number of parameters of each model as well as the high number of models itself – 120

⁴The estimations were run on five virtual machines each equipped with four cores, which allowed to run twenty simulations at the same time. The virtual machines were provided by the IT-Service Center of the Faculty of Business Administration and Economics of the University of Duisburg-Essen. Special thanks are due to Sebastian Troche who provided valuable technical support.

⁵Simulations took about ten days for children with both parents and almost three days for children living in lone parent families.

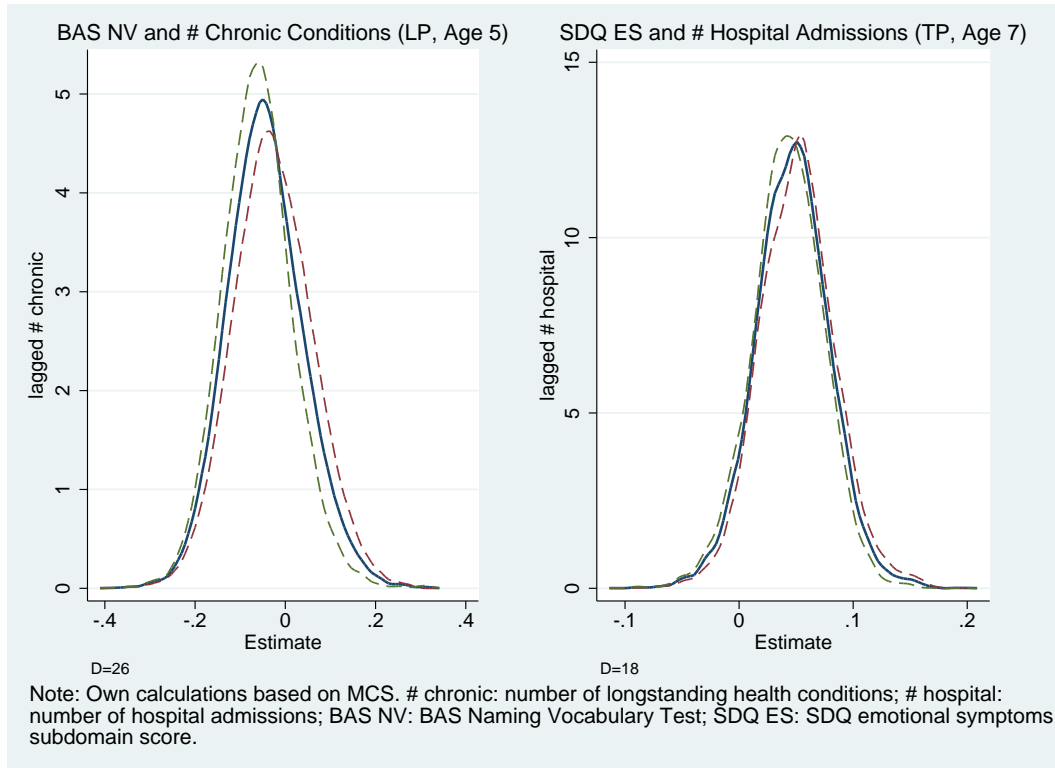
different simulations have been run. Spiegelhalter et al. (2007) suggests monitoring only a random selection of relevant parameters. However, even this seems impracticable given the large amount of data. In the following, I will focus on convergence of the most relevant parameters, that is to say, the impact of lagged health on child development and provide some exemplary assessments of convergence. Figure (3.1) shows two randomly selected trace plots which do not provide evidence of drift and show that the entire distribution of the parameters is covered quite quickly. The figure also indicates that the burn-in phase is of sufficient length.

Figure 3.1: Exemplary Trace Plots



Estimates of other parameters resemble these patterns, although mixing might sometimes be slower. Figure (3.2) provides smoothed density plots displaying densities for each third of the chain. The plots in general suggest reasonable agreement although the difference measure $D = 26$ is borderline as values below 20 usually indicate sufficient agreement as a rule of thumb. Again, most of the randomly selected parameters provide similar pictures.

Figure 3.2: Exemplary Sectional Densities Plot



3.5 Results

3.5.1 Classical regressions – descriptive results

In this section, I discuss findings based on the estimation of equation (3.3). This setup accounts for reversed causality but not for unobserved heterogeneity. Therefore the results should be interpreted with care, although I control for a broad range of variables that potentially have an influence on both outcomes. Table (3.3) summarizes the results of several estimations using different health and standardized development measures. All regressions employ the same sets of control variables described in section (3.3.2). Detailed results can be found in the appendix (see tables A.3.2 to A.3.21).

In general, prior physical health conditions are not associated with worse cognitive outcomes for children aged five. Two out of three cognitive measures are neither influenced by chronic conditions nor hospital admissions. Only BAS PC scores show a significant negative association with both physical health indicators. This result holds true for both household types, although the effect seems to be worse with respect to lone parent families. For instance, an additional chronic condition results in a 0.15 standard deviations lower test score for children in lone parent households compared to a 0.06 standard deviations

Table 3.3: Descriptive estimates – child development and health

	Age 5			Age 7		
	Physical health		Mental health	Physical health		Mental health
	# chronic	# hospital	SDQ HA	# chronic	# hospital	SDQ HA
Lone parents						
<i>Cognitive</i>						
BAS NV	-0.07	-0.02	-0.03**			
BAS PS	-0.03	-0.02	-0.03**			
BAS PC	-0.15***	-0.06**	-0.06***	-0.07	-0.01	-0.04***
BAS WR				-0.06	-0.06	-0.07***
NFER Math				-0.03	0.03	-0.08***
<i>Noncognitive</i>						
SDQ ES	0.11**	0.06**	0.06***	0.05	0.05	0.09***
SDQ CP	0.10**	0.01	0.12***	0.00	-0.01	0.13***
SDQ PR	0.05	0.01	0.06***	0.09**	0.04	0.08***
SDQ PB	0.11**	0.04	-0.10***	0.02	-0.01	-0.09***
CSR IND	-0.06	-0.01	-0.12***	-0.02	-0.00	-0.13***
CSR EMO	0.04	0.02	0.10***	0.06	0.04	0.16***
CSR COO	-0.06	-0.01	-0.10***	-0.04	-0.00	-0.13***
Two parents						
<i>Cognitive</i>						
BAS NV	-0.04	0.00	-0.04***			
BAS PS	-0.05*	0.02	-0.03***			
BAS PC	-0.06**	-0.04**	-0.04***	-0.09***	-0.08***	-0.06***
BAS WR				-0.07***	-0.03*	-0.08***
NFER Math				-0.09***	-0.06***	-0.07***
<i>Noncognitive</i>						
SDQ ES	0.11***	0.05***	0.06***	0.16***	0.05**	0.07***
SDQ CP	0.03	0.02	0.12***	0.08***	0.05***	0.14***
SDQ PR	0.11***	0.01	0.06***	0.15***	0.07***	0.08***
SDQ PB	-0.00	0.00	-0.07***	-0.04**	-0.00	-0.09***
CSR IND	-0.06**	-0.03**	-0.10***	-0.09***	-0.05***	-0.15***
CSR EMO	0.07***	0.02	0.12***	0.13***	0.05**	0.18***
CSR COO	-0.05**	-0.03*	-0.10***	-0.10***	-0.05**	-0.14***

Note: Own calculations based on MCS. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation. * p<0.10, ** p<0.05, *** p<0.01.

reduction for children in two parent families. The results concerning children aged seven show a less clear picture. There is no statistically significant association of cognitive abilities and physical health for lone parent families. In contrast to this, two out of three cognitive measures are negatively correlated with both physical health measures at a one percent level of significance for children living in two parent households. While longstanding health conditions are negatively associated with the BAS Word Reading subtest, there is no such correlation with respect to hospital admissions. The effect of mental health is, in general, significantly negative for both household types as well as both age groups. In addition, the observed effects are of similar size for both household types.

In summary, there is no unique evidence for a negative effect of physical health on cognitive development. While the coefficients usually exhibit the expected signs, statistical significance of the observed associations depends on the household type, child's age and the domain under consideration. Although the results should be interpreted with care, this could indicate that some domains of cognitive abilities are more vulnerable to ill physical health than others. As for instance, the development of spatial awareness, dexterity or coordination (that are assessed by the BAS PC test) might be closely related to physical activities that could be hindered by chronic health conditions. The association of physical health and cognitive abilities differs substantially by household type for older children. The effect of mental health is much more robust. This is in line with recent research on the impact of child health on child development which stresses the importance of mental over physical conditions (Currie and Stabile, 2006 and Ding et al., 2009).

Noncognitive abilities are only rarely correlated with physical health among children living in lone parent households. The number of hospital admissions shows only one significant correlation which is with the emotional symptoms subdomain of the SDQ. Higher numbers of longstanding diseases are associated with worse developmental outcomes in terms of emotional symptoms and conduct problems. Interestingly, prosocial behaviour (SDQ PB) is positively related to chronic illnesses. At the age of seven only a positive correlation between longstanding conditions and peer relationship problems (SDQ PR) is detectable. Children of two parent families generally have much stronger associations between physical health and noncognitive skills. While the data provides only few significant correlations between hospital admissions and developmental measures (SDQ ES and CSR IND) for children aged five, emotional symptoms and peer relationship problems as well as the three CSR indicators show lower achievements with respect to longstanding health conditions. The relationship between physical well-being and noncognitive abilities remains stable over the period under consideration and seems to become even stronger as children

grow older. Almost all developmental indicators are significantly correlated with both measures of physical health among children aged seven years. Additionally, the correlations have the expected signs and seem to increase compared to the results concerning the younger children.

The findings with respect to noncognitive skills and physical health among children of two parent households are clearly distinct from the results of children of lone parent households, which neither show distinct associations nor an increase over time. In general, worse health is associated with lower achievements on several developmental measures. This holds especially true concerning children of two parent families.

Similarly for the analysis of the relationship between cognitive abilities and mental health, higher hyperactivity scores in the preceding period are consistently associated with worse noncognitive skills in the current period for both household types. The results are generally stronger than those concerning cognitive abilities and do not provide evidence for marked differences by family type. In addition to that, the CSR indicators show a marked increase of their statistical associations with mental health over time while SDQ measures do not. This finding remains valid irrespective of the household type. It should be recognised that conduct problems, self-regulation, emotional dysregulation and cooperation in particular, exhibit strong associations with mental health. These findings are in line with results provided from medicine and psychology. The National Collaborating Centre for Mental Health (2009, see for instance sections 2, 4 and 5) provides a comprehensive overview and discussion of research related to comorbidities and impairments resulting from ADHD which is beyond the scope of this paper. According to this overview ADHD is associated with worse academic and social outcomes (see for example National Collaborating Centre for Mental Health, 2009, sections 2.8, 4.5.1 and 5.6). ADHD has also been found to be a precursor of other problems, for example, conduct problems (National Collaborating Centre for Mental Health, 2009, section 5.5).

3.5.2 Bayesian regressions – causal impact

Causal impact of health

Tables (3.4) and (3.5) provide summaries of Bayesian estimates of the impact of health on child development.⁶ The tables show the mean, median and standard deviation of the posterior distribution as well as the 95% credibility interval. This Bayesian confidence interval gives a range of potential parameter values that comprises 95% of the probability

⁶Detailed results are presented in tables (A.3.22) to (A.3.117) in the appendix.

mass. In addition to that, the tables display the MCMC standard errors which allow us to assess whether the length of the burn-in phase is sufficient. Although the Bayesian perspective differs from the frequentist approach, Train (2009) points out that results obtained by Bayesian procedures can be interpreted in a classical way. It can be shown that means and standard deviations of the posterior distributions are asymptotically equivalent to maximum likelihood estimates of the respective coefficient and its standard error. The regressions use the same set of control variables as those in section (3.5.1), but additionally allow control for unobserved heterogeneity.

There is almost no evidence for physical health conditions having an impact on cognitive abilities among five year old children living in lone parent households. The number of hospital admissions represents an exception as it shows a slight negative influence on the BAS Pattern Construction subtest (-0.09 standard deviations). The impact of chronic conditions on this subtest is only significantly different from zero at the 10% level. These results are similar to those for children in the same age but living in two parent families. Again, there is only minor evidence for influence of physical conditions. Conversely to children living in lone parent families, children living with both parents are significantly negatively affected by longstanding health conditions (-0.72 standard deviations) but not by hospital admissions. In summary, this pattern is similar to the descriptive findings and suggests that only cognitive skills measured by the Pattern Construction subtest are affected by physical conditions.

The simulations concerning children aged seven do not provide evidence for an impact of physical health on cognitive development among children living in a lone parent household. Although the signs broadly show the expected signs, the estimated means are not significantly different from zero. This also applies to children living in two parent families, with the exception of the number of hospital admissions. This health indicator significantly negatively affects the Pattern Construction subtest as well as the NFER math test (-0.14 and -0.08 standard deviations). While the results concerning children of single parents are very similar to the descriptive findings, Bayesian estimates fail to provide evidence for a negative impact of chronic conditions among children living with both parents. This contrasts with the maximum likelihood estimates without unobserved heterogeneity. Bayesian as well as descriptive results show a negative impact of hospital admissions on child's achievement in the Pattern Construction subtest and the NFER math test.

Table 3.4: Bayesian estimates – child development and health (Age 5)

	Physical health										Mental health							
	# chronic					# hospital					SDQ HA							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Lone parents																		
<i>Cognitive</i>																		
BAS NV	-0.04	0.09	0.00	-0.05	(-0.20 0.13)	-0.05	0.05	0.00	-0.05	(-0.16 0.05)	-0.05	0.02	0.00	-0.05	(-0.10 -0.01)			
BAS PS	-0.02	0.10	0.00	-0.02	(-0.20 0.18)	-0.06	0.06	0.00	-0.06	(-0.18 0.04)	-0.06	0.03	0.00	-0.06	(-0.11 -0.01)			
BAS PC	-0.14	0.08	0.00	-0.14	(-0.31 0.03)	-0.09	0.05	0.00	-0.08	(-0.19 -0.00)	-0.07	0.02	0.00	-0.07	(-0.12 -0.03)			
<i>Noncognitive</i>																		
SDQ ES	0.13	0.09	0.00	0.12	(-0.04 0.32)	0.07	0.04	0.00	0.07	(-0.01 0.15)	0.09	0.03	0.00	0.09	(0.04 0.14)			
SDQ CP	0.11	0.07	0.00	0.10	(-0.03 0.25)	0.06	0.06	0.00	0.05	(-0.05 0.17)	0.23	0.02	0.00	0.23	(0.19 0.26)			
SDQ PR	0.09	0.09	0.00	0.08	(-0.07 0.28)	0.02	0.05	0.00	0.02	(-0.06 0.13)	0.10	0.03	0.00	0.10	(0.05 0.15)			
SDQ PB	0.06	0.12	0.00	0.07	(-0.21 0.26)	0.02	0.05	0.00	0.02	(-0.09 0.11)	-0.19	0.02	0.00	-0.19	(-0.23 -0.14)			
CSR IND	-0.14	0.12	0.00	-0.12	(-0.43 0.05)	-0.02	0.05	0.00	-0.02	(-0.13 0.07)	-0.17	0.03	0.00	-0.17	(-0.22 -0.12)			
CSR EMO	0.02	0.09	0.00	0.02	(-0.16 0.19)	0.03	0.05	0.00	0.02	(-0.06 0.12)	0.19	0.02	0.00	0.19	(0.14 0.23)			
CSR COO	-0.09	0.10	0.00	-0.08	(-0.30 0.10)	-0.03	0.05	0.00	-0.03	(-0.14 0.06)	-0.19	0.02	0.00	-0.19	(-0.23 -0.15)			
Two parents																		
<i>Cognitive</i>																		
BAS NV	-0.02	0.08	0.00	-0.01	(-0.20 0.10)	0.04	0.03	0.00	0.04	(-0.03 0.10)	-0.04	0.01	0.00	-0.04	(-0.07 -0.02)			
BAS PS	-0.03	0.07	0.00	-0.03	(-0.18 0.12)	0.03	0.03	0.00	0.03	(-0.04 0.09)	-0.05	0.01	0.00	-0.05	(-0.07 -0.02)			
BAS PC	-0.66	0.05	0.00	-0.66	(-0.72 -0.58)	-0.04	0.03	0.00	-0.04	(-0.11 0.02)	-0.04	0.01	0.00	-0.04	(-0.06 -0.02)			
<i>Noncognitive</i>																		
SDQ ES	0.74	0.02	0.00	0.74	(0.70 0.79)	0.05	0.02	0.00	0.05	(0.00 0.09)	0.20	0.01	0.00	0.20	(0.17 0.22)			
SDQ CP	0.60	0.03	0.00	0.60	(0.54 0.65)	0.02	0.03	0.00	0.02	(-0.04 0.09)	0.29	0.01	0.00	0.29	(0.27 0.30)			
SDQ PR	0.78	0.03	0.00	0.78	(0.72 0.84)	0.03	0.03	0.00	0.03	(-0.04 0.09)	0.18	0.01	0.00	0.18	(0.15 0.21)			
SDQ PB	-0.63	0.03	0.00	-0.63	(-0.68 -0.57)	-0.11	0.06	0.00	-0.11	(-0.22 -0.01)	-0.22	0.01	0.00	-0.22	(-0.25 -0.20)			
CSR IND	-0.08	0.07	0.00	-0.08	(-0.21 0.05)	-0.10	0.04	0.00	-0.10	(-0.18 -0.02)	-0.18	0.01	0.00	-0.18	(-0.20 -0.15)			
CSR EMO	0.68	0.03	0.00	0.68	(0.61 0.74)	0.03	0.03	0.00	0.03	(-0.03 0.10)	0.26	0.01	0.00	0.26	(0.24 0.28)			
CSR COO	-0.70	0.03	0.00	-0.70	(-0.76 -0.64)	-0.08	0.04	0.00	-0.07	(-0.17 0.00)	-0.25	0.01	0.00	-0.25	(-0.28 -0.23)			

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Mental health exhibits a significant negative effect on cognitive development among children aged five. Children in both types of household are similarly affected by worse mental conditions with respect to each of the three indicators (ranging from -0.04 to -0.07 standard deviations). This is also true with respect to children aged seven. Hyperactivity and inattention exhibit a significant negative impact on cognitive skills, irrespective of family type. The influence seems to be slightly stronger than among younger children and ranges from -0.05 to -0.09 standard deviations. This robust evidence is similar to the descriptive results provided in table (3.3).

Noncognitive development is not affected by physical conditions among children aged five living in lone parent households. There is no significant evidence for a negative impact, although the estimated means in general show expected signs and are similar in magnitude to the maximum likelihood point estimates provided in table (3.4). The latter shows a significant negative association between chronic conditions and emotional symptoms as well as conduct problems and a significant positive relation to prosocial behaviour. The results concerning children living in two parent households are clearly distinct from those findings. They provide evidence in favour of a robust negative impact of chronic conditions on noncognitive skills. In spite of the prosocial behaviour subdomain of the SDQ, children's skills are reduced by about two-thirds of a standard deviation in each domain. Hence, the adverse effects according to Bayesian results are much stronger than those obtained by classical methods. Hospital admissions are less clearly associated with noncognitive abilities. Emotional symptoms and independence are subject to adverse effects of hospital admissions (0.05 and -0.10 standard deviations). Scores of the prosocial as well as cooperative behaviour subdomains are only slightly negatively affected. The effects of chronic conditions are much stronger compared with the number of hospital admissions. Compared to the descriptive findings, Bayesian results suggest a stronger impact of chronic conditions on noncognitive skills. Both empirical approaches provide mixed results regarding hospital admissions.

The Bayesian results concerning children aged seven are qualitatively very similar to those discussed above. There is no evidence of an impact of physical health on noncognitive development among children living in lone parent households. Again, the findings with respect to children living in two parent families are distinct. Chronic conditions exhibit robust negative effects on SDQ subscores which are also similar in size compared to children aged five (ranging from -0.65 (PB) to 0.74 (PR)). Except for the independence/self-regulation domain, all CSR noncognitive skill measures are negatively affected by chronic conditions. In contrast to the findings concerning five year old

Table 3.5: Bayesian estimates – child development and health (Age 7)

	Physical health										Mental health							
	# chronic					# hospital					SDQ HA							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Lone parents																		
<i>Cognitive</i>																		
BAS PC	-0.10	0.09	0.00	-0.10	(-0.28 0.07)	-0.01	0.07	0.00	-0.01	(-0.15 0.12)	-0.05	0.02	0.00	-0.05	(-0.10 -0.01)			
BAS WR	-0.10	0.08	0.00	-0.10	(-0.27 0.03)	-0.06	0.06	0.00	-0.06	(-0.17 0.06)	-0.08	0.02	0.00	-0.08	(-0.12 -0.04)			
NFER Math	-0.04	0.08	0.00	-0.03	(-0.23 0.11)	0.06	0.06	0.00	0.06	(-0.05 0.18)	-0.09	0.02	0.00	-0.09	(-0.15 -0.05)			
<i>Noncognitive</i>																		
SDQ ES	0.09	0.08	0.00	0.08	(-0.05 0.28)	0.02	0.06	0.00	0.03	(-0.10 0.13)	0.16	0.02	0.00	0.16	(0.11 0.20)			
SDQ CP	0.08	0.09	0.00	0.07	(-0.09 0.26)	0.02	0.06	0.00	0.01	(-0.09 0.14)	0.20	0.02	0.00	0.20	(0.16 0.24)			
SDQ PR	0.13	0.08	0.00	0.12	(-0.02 0.31)	-0.01	0.07	0.00	-0.00	(-0.14 0.12)	0.11	0.03	0.00	0.11	(0.06 0.17)			
SDQ PB	-0.01	0.08	0.00	0.01	(-0.20 0.12)	-0.02	0.06	0.00	-0.01	(-0.14 0.10)	-0.15	0.03	0.00	-0.15	(-0.20 -0.10)			
CSR IND	-0.04	0.09	0.00	-0.04	(-0.25 0.12)	0.00	0.06	0.00	0.00	(-0.11 0.13)	-0.16	0.03	0.00	-0.16	(-0.21 -0.12)			
CSR EMO	0.10	0.08	0.00	0.09	(-0.04 0.28)	0.02	0.05	0.00	0.03	(-0.08 0.12)	0.21	0.02	0.00	0.21	(0.16 0.25)			
CSR COO	-0.02	0.08	0.00	-0.02	(-0.17 0.15)	-0.00	0.06	0.00	-0.00	(-0.12 0.11)	-0.17	0.03	0.00	-0.18	(-0.22 -0.12)			
Two parents																		
<i>Cognitive</i>																		
BAS PC	-0.08	0.06	0.00	-0.07	(-0.20 0.03)	-0.14	0.04	0.00	-0.14	(-0.22 -0.06)	-0.06	0.01	0.00	-0.06	(-0.09 -0.04)			
BAS WR	-0.07	0.06	0.00	-0.05	(-0.20 0.02)	-0.03	0.04	0.00	-0.03	(-0.11 0.04)	-0.08	0.01	0.00	-0.08	(-0.10 -0.06)			
NFER Math	-0.07	0.06	0.00	-0.07	(-0.17 0.05)	-0.08	0.04	0.00	-0.07	(-0.16 -0.00)	-0.08	0.01	0.00	-0.08	(-0.10 -0.06)			
<i>Noncognitive</i>																		
SDQ ES	0.71	0.03	0.00	0.71	(0.65 0.78)	0.05	0.03	0.00	0.05	(-0.02 0.11)	0.19	0.01	0.00	0.19	(0.17 0.22)			
SDQ CP	0.53	0.06	0.00	0.55	(0.38 0.62)	0.06	0.04	0.00	0.06	(-0.02 0.14)	0.28	0.01	0.00	0.28	(0.26 0.30)			
SDQ PR	0.74	0.02	0.00	0.74	(0.69 0.78)	0.08	0.03	0.00	0.08	(0.03 0.15)	0.19	0.01	0.00	0.19	(0.16 0.21)			
SDQ PB	-0.65	0.03	0.00	-0.65	(-0.70 -0.59)	-0.05	0.05	0.00	-0.04	(-0.14 0.04)	-0.21	0.01	0.00	-0.21	(-0.24 -0.18)			
CSR IND	-0.10	0.05	0.00	-0.11	(-0.20 0.02)	-0.06	0.03	0.00	-0.06	(-0.14 -0.00)	-0.22	0.01	0.00	-0.22	(-0.25 -0.20)			
CSR EMO	0.32	0.06	0.00	0.32	(0.20 0.45)	0.06	0.04	0.00	0.06	(-0.02 0.14)	0.32	0.01	0.00	0.32	(0.30 0.34)			
CSR COO	-0.15	0.08	0.00	-0.14	(-0.32 -0.01)	-0.08	0.05	0.00	-0.08	(-0.18 0.01)	-0.26	0.01	0.00	-0.26	(-0.29 -0.24)			

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test; NFER Math: NFER in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

children, the estimated impact is much smaller (0.32 (EMO) and -0.15 (COO)). The results with regard to hospital admissions are mixed. Only the peer-relationship problem and the independence subdomains seem to exhibit slightly negative effects, while the other means show the expected signs but are insignificant. In summary, Bayesian evidence broadly confirms descriptive results concerning children living in lone parent households. In contrast to that, descriptive findings suggest a more robust negative and partially smaller impact of physical conditions than is found by Bayesian estimates.

Mental health shows strong negative effects among children in both types of household. All measures of noncognitive development are significantly negatively affected by worse mental health. The effects are larger compared to those obtained with respect to cognitive skills as well as to the descriptive findings. Additionally, children in families with both parents present are subject to greater impairments compared to children living in a lone parent household.

Variance parameters and unobserved heterogeneity

Bayesian analysis allows us to investigate the contribution of unobserved heterogeneity and hence, to assess potential biases of estimated parameters. Tables (A.3.22) to (A.3.117) in the appendix also provide results concerning standard deviations of terms representing individual unobserved heterogeneity and their correlations as well as the standard deviation of linear regression error terms. In addition to that, the share of unobserved heterogeneity of total variance can be calculated given the information of these tables.

The results concerning the impact of physical conditions on cognitive skills broadly indicate that individual unobserved characteristics contribute only a small share of total variance. This applies to all children irrespective of the type of household or age group (2% to 6 % of total variance), except for the impact of chronic conditions on the Pattern Construction subtest among five year old children in two parent families where unobserved heterogeneity is of particular importance (about 60% of total variance). The same pattern applies to the estimated correlation between terms representing unobserved heterogeneity in both equations. The only significant correlation (0.99)⁷ emerges in the regression of chronic conditions on Pattern Construction scores among children aged five living in two parent families. This indicates that these children who are subject to more chronic conditions in period $t - 1$ are likely to achieve higher scores in the Pattern Construction subtest at time t due to unobserved characteristics. One possible explanation for this is perhaps that parents or child care staff react to disadvantageous conditions by provision of

⁷In the following, I report the posterior mean of the correlation between individual specific error terms.

measures to offset harmful effects.⁸ Neglecting unobserved heterogeneity leads to upward biased estimates and hence, to an underestimation of negative health effects.

With respect to the impact of mental health on cognitive development, unobserved heterogeneity contributes 21% to 26% of total variance of the health equation, but does not account for a substantial share of overall variance of the development equation. This result is independent from the group of children under consideration. There is no evidence in favour of a significant correlation. As can also be inferred from the comparison of the corresponding estimates in tables (3.3), (3.4) and (3.5), there is no significant difference between maximum likelihood and Bayesian estimates and thus no evidence for biased regression results. This finding might initially seem remarkable as one might suppose that ADHD is treated in order to avoid or attenuate developmental disorders. However, I focus on related symptoms rather than diagnosed cases such that parents might not see need for action or might be unable to take appropriate measures.

Unobserved individual characteristics do not contribute a substantial fraction of variance with respect to the analysis of the impact of physical conditions on noncognitive skills among children living in lone parent households irrespective of child age (1% to 6% of total variance). Additionally, there is no evidence for correlated individual specific error terms. In opposition to that, unobserved individual characteristics are important regarding children living in two parent families. Considering the impact of chronic conditions, they contribute 67% up to 77% for children aged five and 50% to 72% of total variance for children aged seven. The results provide evidence for significant negative, almost perfect, correlations with respect to emotional symptoms, conduct problems and peer relationship problems as well as very high, significant, positive correlations concerning prosocial behaviour subdomains of the SDQ. Negative correlation coefficients imply that, children suffering from more chronic conditions in the previous period tend to have lower SDQ scores. Again, this finding may result from parental responses to child health. As for example ill children may receive more attention or specific care arrangements in reaction to their impairment. Thus, maximum likelihood estimates are downward biased. The analysis shows a positive correlation coefficient with respect to prosocial behaviour. In opposition to the former subdomains, higher values on the prosocial behaviour scale indicate better achievements. While chronic conditions negatively affect this domain, children suffering from more chronic conditions at the age of five seem more likely to be empathetic or helpful than other children. This might be a result of negative experiences due to ill-

⁸Parental responses to health as well as endowment heterogeneity and related biases have extensively been discussed in the context of the production of child health by Rosenzweig and Schultz (1983) and Rosenzweig and Wolpin (1988) for example.

ness which affect the formation of character. Unobserved heterogeneity can be considered of limited importance in regressions using SDQ measures and hospital admissions. This applies to both age groups. Despite a significant positive correlation between individual specific errors in the prosocial behaviour regression (0.76), there are no other correlations detectable.

The results concerning CSR provide a less clear picture. Unobserved heterogeneity contributes a substantial share to total variance concerning emotional dysregulation and cooperation subscales (67% and 71%) using chronic conditions among children aged five living in two parent families, but there is only a small fraction among older children or children living in lone parent households. Almost perfect correlations can be found with respect to the emotional dysregulation (-0.99) and cooperation (0.99) subdomains. These resemble patterns already observed within the analysis of SDQ subdomains. The high and positive correlation coefficient corresponding to the analysis of cooperative behaviour reproduces the findings obtained with respect to the prosocial behaviour score. Regressions using data on older children show a significant correlation only with respect to emotional dysregulation (-0.82). Again, there is just a small contribution of unobserved heterogeneity concerning regressions using hospital admissions as a health indicator.

Considering mental health and noncognitive development in terms of SDQ subdomains, results with respect to unobserved heterogeneity are quite robust. While there are varying shares with regard to the development equations among children living in lone parent families, there are considerable contributions to overall variances concerning health equations among children with a single parent and concerning both equations among two parent families. Additionally, individual specific error terms are highly negatively correlated with respect to emotional symptoms, conduct problems and peer relationship problems as well as highly positively with regard to prosocial behaviour. Thus, these results confirm earlier findings concerning chronic conditions. Turning to mental health and CSR subscores, there is a robust and substantial share of total variance contributed by unobserved heterogeneity with respect to health equations. The picture is less clear considering the development regressions. Only a small fraction of overall variances is due to individual specific characteristics when analysing the health consequences on the CSR independence/self-regulation domain. In opposition to that, substantial amounts result with respect to emotional dysregulation and cooperation subscores. This pattern applies to all groups except seven year old children living in lone parent households. Finally, the results show significant positive correlations with respect to CSR independence and cooperation subdomains as well as negative correlations with regard to emotional dysregulation among all

but one group. There is no evidence for correlated errors among children aged seven year living with a single parent. In general, these findings are also in line with those obtained regarding chronic conditions.

3.6 Discussion and Conclusions

This analysis focuses on the impact of child health on child development among children in the age group five to seven, by using comprehensive British birth cohort data. Although there is wide range of empirical studies dealing with this topic, there is little consensus on whether harmful effects exist or not. More recent studies (see for instance Currie and Stabile, 2006 and Ding et al., 2009) emphasise the importance of mental conditions for child development. They find strong adverse effects and suggest that mental health has a greater effect on developmental outcomes than physical conditions have.

The present analysis provides strong evidence for poor mental health, measured by the SDQ hyperactivity and inattention subdomain, having a harmful impact on cognitive and noncognitive skills. These strong negative effects are robust in regard to family type and child age. There are remarkable differences considering the impact of physical conditions. While the number of hospital admissions is in general unrelated to child development, chronic conditions only seem to affect spatial thinking among younger children living in two parent households, but are otherwise also unrelated to cognitive skills. Furthermore longstanding health conditions exhibit adverse effects on numerous domains of noncognitive skills among children living in two parent families irrespective of their age. Hence, there is substantial effect heterogeneity with respect to family type which demands further research. The results broadly confirm those obtained by Currie and Stabile (2006) and Ding et al. (2009), although the impact of chronic conditions on SDQ scores is substantially larger than the impact of mental health among children living with both parents.

The empirical approach addresses reversed causation and unobserved heterogeneity. The first issue is tackled by focusing on the intertemporal effect health has on child development. The second issue is approached by application of MCMC methods to a system of equations which reflects potential endogeneity of child health in the development equation. MCMC methods allow to take unobserved individual characteristics into account. The results indicate significant contributions of unobserved heterogeneity to overall variances. A comparison of maximum likelihood and Bayesian estimates, in addition to the analysis of error variances and correlations, shows that ignoring unobserved heterogeneity leads to biased estimates and an underestimation of the impact of health conditions. The correla-

tions of individual specific error terms suggest that parents or other caregivers respond to worse (physical) health by provision of additional attention or specific measures in order to compensate for negative consequences. Additionally, children hit by chronic conditions in the previous period seem likely to advance in terms of prosocial behaviour. This might be due to these children becoming more socially mature due to burdensome experiences. Although the analysis at hand addresses several empirical issues, theoretical models of human capital and health production (see for instance Cunha and Heckman, 2007 and Heckman, 2007) suggest additional features that should be considered by future research. These encompass, for example, dynamic modelling of human capital accumulation as well as consideration of comorbidities and should be considered together with unobserved heterogeneity and reversed causation. In addition to this, the lack of statistical significance with respect to the results among children living in lone parent households should not be taken as evidence against a causal impact of child health, particularly since signs shown are by and large, to be expected. The analysis shows marked differences between children living in different household types. These should be addressed by further research. Finally, particular attention should be devoted to unravelling unobserved characteristics as these might comprise parental reactions to adverse child conditions.

The results provide several interesting insights for policy makers. Empirical evidence from development economics (see for instance Doyle et al., 2009 for a discussion of optimal timing and policy examples) suggests that earlier interventions focusing on the promotion of child development should be preferred over later interventions as the respective returns to investment increase the earlier the measure is carried out. The results at hand provide additional arguments for early interventions as there are strong intertemporal effects of child health on development. In addition to that, health policies move to the domain of educational or social policies as they also foster child development and might contribute to the dismantling of social inequalities. Political measures should also be designed in a manner that is cognisant of specific problems of lone or two parent families. The results presented above and those of Currie and Stabile (2006) and Ding et al. (2009) suggest that policies should address mental health conditions in particular as these have a robust negative impact on child development. Unobserved heterogeneity indicates substantial paternal reactions to attenuate adverse effects of physical health conditions. In opposition to this, these patterns are not detectable with respect to mental health. This might imply that mental impairments are less clear compared to physical conditions and the selection of appropriate counteractions or even cognition of need for action are impeded. Policies should therefore aim at supporting parents with ill children in addition to other measures.

Chapter 4

Does the combination of family and paid work make you ill?

4.1 Introduction

Over the past decade there has been a substantial increase in female labour supply in almost all industrialised western countries (OECD, 2013). At the same time the main responsibility for household chores and child care still lies with women, although there has been a significant narrowing of the gender gap (see for instance Bianchi and Milkie, 2010 and references therein). This narrowing has been primarily due to a reduction of female engagement in unpaid labour and to a lesser extent, to an increase of male participation in household chores. This development leads to increased concerns about the reconciliation of family and working life as well as resultant consequences on different domains of individual and family well-being (e.g. Bianchi and Milkie, 2010 or Silverstein and Giarrusso, 2010). Among those, health is of particular interest as it affects other domains of well-being or can even be considered as a precondition for various achievements. While health and individual well-being are already of considerable interest on their own, they have significant economic importance, as there is some evidence that the work-family conflict is related to absence due to sickness (Jansen et al., 2006 and Voss et al., 2008). The effect of the so called double burden, meaning combining (conflicting) demands from the labour and home domain, is ambiguous from a theoretical point of view. On the one hand role accumulation theory (e.g. Sieber, 1974 or Greenhaus and Powell, 2006) suggests that women gain from engaging in multiple roles as this permits compensation for harmful effects in family life with positive experiences in the working domain, for example. On the other hand, according to role strain theory women are afflicted with combining multiple

demands due to role overload (e.g. Verbrugge, 1983) or role conflict (e.g. Arber et al., 1985) as struggling with opposing demands leads to adverse health consequences.

Not only theoretical implications are equivocal but empirical evidence is also somewhat inconclusive. The majority of studies come from medicine, psychology or sociology and find negative effects of being exposed to the double burden on different measures of health. For example, Krantz and Östergren (2001) and Emslie et al. (2004) find women struggling with simultaneous demands from employment and household obligations are more likely to suffer from a growing number of medical symptoms. Mellner et al. (2006) reports that job strain and facing multiple demands are related to poor health. Nordenmark (2004a) and Brummelhuis et al. (2008) show that suffering from the double burden is associated with an increased risk of exhaustion and burnout. Roxburgh (2004), Nomaguchi et al. (2005), Oomens et al. (2007) and Perry-Jenkins et al. (2007) provide evidence in favour of adverse effects on mental health. In opposition to that, Waldron et al. (1998), Fokkema (2002), Krantz et al. (2005) and Usdansky et al. (2012) find no or only little evidence of unfavourable effects on health. Fokkema (2002) and Nordenmark (2004b) suggest that women might gain in terms of mental health from engaging in multiple roles. There are only few studies from economics investigating the issue at hand. For example, Chatterji and Markowitz (2012) find positive effects of the length of family leave on depression and self-assessed health among new mothers and Chatterji et al. (2013) show that increased maternal labour market participation at the extensive margin is associated with increased depressive symptoms and worsened self-assessed overall health.

Many of the aforementioned studies are subject to one or more methodological issues. In particular, these issues include reversed causation and unobserved heterogeneity. The former is likely a problem because employment depends on health as women in worse health might for instance, decide to withdraw from the labour market. The latter is crucial as there may be unobserved characteristics like a woman's social environment that affect both health and employment. According to Grossman (1972, 2000) health production is a dynamic process. Although this is considered by some empirical studies (e.g. Fokkema, 2002 or Oomens et al., 2007), dynamic estimation techniques have not been applied and, hence, results may be subject to dynamic panel bias. Furthermore, many studies use small or selective samples such that results might be biased or generalisation is complicated.

I challenge several methodological concerns by applying sophisticated dynamic models to comprehensive German panel data. More specifically, I use system GMM models (Arellano and Bover, 1995 and Blundell and Bond, 1998) that allow for dynamic processes and endogenous explanatory variables as well as unobserved individual characteristics. In order

to avoid reversed causality the analysis focuses on intertemporal effects of combining demands from the family and work domains on overall self-assessed health. The data is based on the German Socio-Economic Panel Study covering the years 2001 to 2011 and allows to control for several individual characteristics. Although there is information about the time spent on paid work and household chores, I consider broad employment categories (full time, part time, unemployed) and the number of children living in the household for two reasons: firstly, broad categories are less prone to measurement error and secondly, results are supposed to be clearer compared with the effects of an hour increase. Furthermore, women facing the double burden might react by reducing hours worked or by completely withdrawing from the labour market from one observation period to another. The analysis includes controls for changes in labour force status in order to consider potential coping strategies.

The results provide robust evidence for adverse health consequences of struggling with combining conflicting demands from the work and home domains. Women working part- or full-time and having children at the same time report significantly worsened self-assessed health compared with women not working and not having children. This finding is independent of the chosen econometric method and the inclusion of control variables. Considering coping mechanisms increases the effect of the double burden. Thus, women facing opposing demands seem to reduce their labour supply or totally withdraw from the labour market, for example. System GMM models provide a good model fit and indicate an even larger negative impact than OLS or fixed effect estimates do. Hence, the results are in line with the major findings from the empirical literature.

Section (4.2) provides a brief introduction to theoretical considerations concerning the effect of combining domestic chores and paid work on health. This section also introduces the main strands of literature and critically discusses empirical results. The econometric framework is presented in section (4.3), while the data used throughout the analysis is described in (4.4). Section (4.5) provides results obtained by OLS, fixed effects and system GMM regressions. Finally, section (4.6) summarises the main findings, assesses them critically and provides policy conclusions.

4.2 Literature

There is a large number of studies dealing with the health consequences of the intersection between the family and work domains. The vast majority of empirical analyses comes from sociology, psychology or medical science and can be grouped as follows: studies concerning

(i) the impact of family obligations on sickness absence¹ or (ii) on mortality², (iii) role accumulation (enhancement) and role strain (conflict) and (iv) the direction of interference which can either run from work to family (WFI) or vice versa (FWI)³. Related literature also comes from analysis of the effects of giving care to elderly persons on the care giver's health⁴. In the following I will concentrate on (ii) as I do not investigate absenteeism, mortality or the direction of interference.

Studies from within the field of psychology or sociology built upon, among others, two opposing theories on the impact of the intersection of work and family demands on health or other outcomes. The role accumulation (enhancement) theory postulates a positive effect of engaging in multiple roles like being a mother, wife and employee, as this provides numerous sources of individual resources and allows compensation for harmful experiences in one domain by another (see for example Sieber, 1974; Greenhaus and Powell, 2006). In opposition to that, the role strain hypothesis states that women suffer from engaging in multiple roles due to role overload (see for example Verbrugge, 1983 or Verbrugge, 1986) or role conflict (see for example Arber et al., 1985; Greenhaus and Beutell, 1985 or Arber, 1991), both of which cause increased levels of stress or other deleterious health effects. The few economic studies that deal with this issue are based on the health capital model of Grossman (1972, 2000) which also provides the theoretical reasoning for the present analysis.

¹For example Blank and Diderichsen (1995), Akerlind et al. (1996), Bratberg et al. (2002), Väänänen et al. (2004), Jansen et al. (2006) and Voss et al. (2008) find a positive relationship between work-family conflict and sickness spells. Women in particular who experience (high levels of) work-family conflict have an increased risk of being absent from work or having substantially longer sickness spells. In opposition to that, Mastekaasa (2000), Krantz and Lundberg (2006) and Lidwall et al. (2010) find only weak or no associations.

²For instance, Kotler and Wingard (1989) find impact of the number of children among employed women, while housewives exhibit an increased risk if a child or more than three children are present in the household. Evidence provided by Hibbard and Pope (1991) suggests no harmful effects of the combination of employment and domestic tasks. Indeed, women seem to gain from paid work in terms of longevity. Martikainen (1995) shows that women simultaneously being wife, mother and employee have a lower mortality. However, this might be best explained by selection effects.

³For example, Frone et al. (1997) find that FWI is related to worse mental and physical health and, in contrast, that WFI is related to alcohol abuse among a sample of employed parents. Following Kinnunen and Mauno (1998), FWI is associated with worse family satisfaction while WFI is associated with worse occupational well-being as well as reduced overall health. Frone (2000) shows that both directions of the work-family conflict are associated with different types of mental disorders. Allen and Armstrong (2006) find that both directions of the intersection between family and work are related to less healthier behaviour and thereby worsen physical health. Franche et al. (2006) provide evidence that workplace factors directly and indirectly (through the work-family interface) influence employee's mental health. Work-to-family spillover is associated with worse mental health while positive family-to-work spillover is related to better mental health. Canivet et al. (2010) shows that both directions of the conflict are related to exhaustion for women as well as men.

⁴See for instance, O'Donnell et al. (2009) and Schmitz and Stroka (2013). Both provide evidence for adverse health effects of providing care and engaging in full-time work among women.

Waldron et al. (1998) examine the impact of employment, marriage and motherhood on physical health. Their results indicate that employment has a positive impact on female health among unmarried women and that marriage exhibits positive effects among unemployed women. There is only little evidence in favour of adverse effects of combining different roles on health. Brisson et al. (1999) analyse the effect of family obligations in conjunction with high work load on blood pressure which might indicate high levels of stress. Highly educated women who are confronted with high demands from both family and work exhibit higher levels of blood pressure. This effect has not been found for less well educated women. Krantz and Östergren (2001) focus on the impact of domestic demands and job strain as well as their intersection on physical and mental health symptoms among Swedish women. Their results show that women with high work load in either of the domains as well as women experiencing double exposure are more likely to report high levels of medical symptoms. Fokkema (2002) examine whether combining paid work and child care affects self-rated health. Their results do not show adverse health effects. Moreover, they indicate that some arrangements are associated with improved health irrespective of marital status (for example with respect to having a part-time employment and taking care of older children). Jansen et al. (2003) examine risk factors for work-family conflict and its consequences for regeneration from work and exhaustion. Their results show that several work-related demands constitute risk factors for work-family conflict for men, whereas physical demands, overtime work, commuting time to work, and having dependent children are risk factors for women. Work-family conflict is strongly related to fatigue as well as poor regeneration. Following Emslie et al. (2004), work-home conflict is related to worse self-rated overall health and psychological health as well as higher prevalence of physical symptoms. Nordenmark (2004a) analyses the effect of increasing demands from the family and work domains on fatigue and the need of reducing working hours. The results indicate that changes in role load between both interviews increase the risk of exhaustion. Women are more likely to desire a decrease in their working hours as a reaction to increased multiple demands. Nordenmark (2004b) tests whether incorporating different social roles is related to health. The results show that the number of roles, as well as an increase in demands from multiple roles, is associated with lower risks of suffering from insomnia and lingering illness. Roxburgh (2004) provides evidence in favour of a positive relationship between time pressure and depressive symptoms, especially among women. Time strain seems to act as a mechanism that translates work-family conflict into depression. According to Krantz et al. (2005) work-family conflict cannot be considered as a cause of ill-health, although symptoms reported by employed women are affected by

the interaction of work and home conditions. The relationship between feelings of time strain for family and oneself and psychological well-being is investigated by Nomaguchi et al. (2005). Their results show that, mothers in particular suffer from time strain for family in terms of worse psychological well-being. Hooff et al. (2005) examine whether WFI affects health and vice versa. They find evidence in favour of a unidirectional negative causal relationship running from WFI to health, but are not able to fully refute the bidirectional model. Additionally, they find increasing WFI to be associated with declining health in the longitudinal perspective. Long-term exposure to high levels of WFI is related to declining health as well. Mellner et al. (2006) find that low income, financial worries, job strain and exposure to the double burden are associated with poor health. Oomens et al. (2007) focus on whether combining work and family causes adverse effects on mental health. They show that single parents with young children who are in full-time employment are more likely to suffer from decreased mental health. Individual perceptions of high levels of work-family conflict are related to worse mental health irrespective of the direction of the conflict. Perry-Jenkins et al. (2007) show that atypical working schedules are related to worse mental health. Role overload decreases mental health and increases relationship conflicts, but does not seem to be associated with working schedules. Brummelhuis et al. (2008) provide empirical support for both theories depending on the family type. While having children is associated with lower incidence of burnout, having children combined with high levels of household chores is correlated with increased feelings of burnout. Steinmetz et al. (2008) address potential causes and outcomes of WFC. Their results show that depression is rather an antecedent of WFC than a consequence. Depression mediates the effect of job stressors on WFC which in turn affects the perception of job stressors. The authors point out that in the short-term WFC is affected by work-related stress while in the long-run WFC negatively affects mental health. Goodman and Crouter (2009) evaluate the effect of work stress on negative work-to-family spillover and the effect of the spillover on depressive symptoms. Their results show that less favourable job characteristics are associated with worse mental health and that these affect spillover only for full-time employed mothers, which hints at difficulties in combining demands from both domains. Usdansky et al. (2012) address whether desire for employment, labour force status and employment characteristics are related to symptoms of depression. The pooled OLS regressions show that there is no straight forward link. Whether mothers are affected by depression or not might depend on preferences of employment and job quality. One of the few studies within the field of economics is Chatterji and Markowitz (2012) who analyse the effect of the length of family leave on depression and self-rated health

of new mothers. Their results show a positive relation of the length of maternal leave on maternal health outcomes. Chatterji et al. (2013) investigate the effects of early maternal employment on maternal well-being including overall self-rated and mental health. Their results indicate that maternal work hours are positively related to symptoms of depression and negatively associated with self-rated overall health.

The preceding survey shows that there is a large body of evidence for negative health consequences of the double burden, although there are some studies indicating no effects or positive effects of combining multiple roles, too. Empirical investigations on the issue of health consequences of the double burden are likely to be subject to endogeneity. Endogeneity may arise from different sources like reversed causation or unobserved individual characteristics. Some authors recognise health production as a dynamic process (for example Fokkema, 2002 and Oomens et al., 2007) without applying appropriate estimation methods. Additionally, small or selective samples may introduce bias and impede generalisation. Most of the empirical analyses presented above share common methodological deficiencies related to at least one of the aforementioned problems. Endogeneity due to reversed causation is one of the most frequently discussed subjects. A number of studies deals with this issue by using longitudinal data where the (health) outcome is measured later than its presumed determinants (for example Jansen et al., 2003; Hooff et al., 2005; Chatterji et al., 2013). Unobserved individual characteristics have received less attention. To my knowledge none of the studies uses panel data models, like fixed or random effects, in order to control for unobserved heterogeneity. Chatterji and Markowitz (2012) analyse the effect of maternity leave length on maternal health. As there may be unobserved traits which are correlated with both health and labour market decisions, they apply a 2SLS procedure using, for exogenous variation from labour market conditions, cost of child care, and related state policies for identification. Selection is closely related to unobserved heterogeneity. Bratberg et al. (2002) argue that women successfully managing competing demands from work and family domain may be a highly selective group. Those women unable to cope with the double burden might have already withdrawn from the labour market. They try to account for sample selection in their analysis of sickness absence by modelling both labour market decisions and the probability of being absent in a bivariate probit. Some studies analyse selective samples which do not allow generalisation, as for instance, Emslie et al. (2004) who use a sample of full-time white-collar employees of a British bank. Other authors base their analyses on samples with a size of a few hundred observations (see for instance Brisson et al., 1999; Erickson et al., 2000; Krantz and Östergren, 2001; Oomens et al., 2007).

4.3 Econom(etr)ic Model

Grossman (1972, 2000) provides the theoretical background for the subsequent empirical analysis. According to his health production model, an individual possesses an initial health stock that depreciates over time. The individual can offset the decline of its health capital by investments in its own health. These may take several forms: health promoting activities and diet, amount and quality of purchased goods, quality of home and family environment and working conditions as well as time for, and quality of, recreational activities. Following the preceding discussion, increasing labour market demands might conflict with family demands due to income or time constraints. On the other hand, higher labour market participation might extend monetary resources for purchasing more valuable goods. Hence, the direction of the effect is a priori indeterminate. Individual i 's health h in period t can be written as⁵

$$h_{it} = f(\mathbf{h}_{it-1}, \mathbf{x}_{it}, \mathbf{F}_{it-1}, \mathbf{W}_{it-1}, \mathbf{B}_{it-1}, \alpha_i), \quad (4.1)$$

where \mathbf{h}_{it-1} is column vector of K_h one period lagged health indicators. The inclusion of lagged health status makes reference to Grossman (1972, 2000) by explicit consideration of state dependence. \mathbf{x}_{it} is a $K_x \times 1$ vector which includes a set of control variables. The column vectors \mathbf{F}_{it-1} and \mathbf{W}_{it-1} enclose sets of K_F indicators of family demands and K_W indicators of labour market participation respectively. \mathbf{B}_{it-1} is of particular interest as it comprises K_B interaction terms of family demand and labour market participation indicators. These are supposed to depict the health related effects of the double burden. The variables used throughout the analysis are described in detail in section (4.4). I concentrate on lagged work and family demands as their impact manifests over time rather than contemporaneously, as potential harmful consequences accumulate until they reach a critical level and take effect. This also mitigates the issue of reversed causation. In addition, estimations of 4.1 may be biased due to unobserved individual characteristics α_i . The functional form of $f(\cdot)$ depends on one hand, on the measurement scale of the health variable and on the other hand, on considerations with regard to the estimation strategy. Unobserved heterogeneity and dynamic panel bias (Nickell, 1981) pose challenges to the estimation of 4.1. The econometric literature provides several approaches which allow us to address these problems, but each has its own disadvantage. The difference GMM (Arellano and Bond, 1991) and system GMM (Arellano and Bover, 1995 and Blundell and Bond, 1998) eliminate the individual fixed effect α_i by first-differencing and purg-

⁵This model might also be applicable to other domains of individual well-being like life satisfaction.

ing dynamic panel bias by using deeper lags of the lagged endogenous variables on the right hand side of the equation as instruments. These estimators also allow us to consider predetermined and endogenous regressors by using one period and two period lagged values, respectively, as instruments. Both GMM estimators assume a metric measurement scale of the variable of interest. Wooldridge (2005) proposes a procedure that specifically addresses estimation of non-linear dynamic equations. While his approach allows us to consider the appropriate measurement level, solves the initial conditions problem and allows us to control for unobserved heterogeneity, it does not offer the possibility of handling endogenous regressors. Another strategy is to estimate a multiple equation model and integrate out unobserved heterogeneity (e.g. within the generalized linear latent and mixed models framework (Rabe-Hesketh et al., 2004a)). However, it may be difficult to find appropriate exclusion restrictions.

For the reasons given above, I focus on difference and system GMM estimation⁶ and assume that $f(\cdot)$ takes a linear form:

$$h_{it} = \mathbf{h}'_{it-1}\gamma + \mathbf{x}'_{it}\beta + \mathbf{F}'_{it-1}\delta_1 + \mathbf{W}'_{it-1}\delta_2 + \mathbf{B}'_{it-1}\delta_3 + \alpha_i + \epsilon_{it} \quad (4.2)$$

In the following I will briefly describe the proposed empirical strategy. The first problem that arises in estimation of 4.2 is the dynamic panel bias which is due to the correlation between the individual fixed effect and the lagged endogenous variables on the right hand side of the equation. Although first differencing leads to an elimination of α_i , it does not eliminate dynamic panel bias as the lagged endogenous regressor is still correlated with the error term. Arellano and Bond (1991) proposed an instrumental estimation strategy to restore orthogonality by using lagged levels as instruments for their differenced counterparts. These instruments are supposed to be uncorrelated to the error term. Endogenous variables require at least two lags whereas predetermined variables demand only one period lagged levels. In the presence of persistent time series and short panels, this strategy might be impaired by a weak instruments problem. Arellano and Bover (1995) and, in particular, Blundell and Bond (1998) suggest a system GMM estimator in order to cope with this shortcoming. The system GMM estimator encompasses a differenced and a level version of 4.2 where differences are instrumented by lagged levels and levels are instrumented by differences. In addition to that, the system GMM approach allows for identification of the impact of time-invariant variables. I therefore prefer system GMM over difference GMM. Two assumptions are crucial for validity of instruments, in other

⁶I use the STATA program *xtabond2* provided by Roodman (2009) for estimation.

words, consistency of system GMM: firstly, lagged levels as instruments for the first differences must be uncorrelated to the error term, that is the error terms in 4.2 have to be serially uncorrelated. Secondly, differences as instruments for the level equation have to be uncorrelated to the individual fixed effects.

Taking this approach overcomes several problems that have not been considered sufficiently in the empirical literature. Firstly, I use a rich German panel data set which offers a sufficient number of observations and a broad set of individual and household socio-economic characteristics. Secondly, the panel structure enables us to consider unobserved heterogeneity and to overcome reversed causality by using lagged indicators of labour market and domestic demands. However, these might still bias estimates since \mathbf{L}_{it-1} , \mathbf{F}_{it-1} and \mathbf{B}_{it-1} may be predetermined since it is likely that, e.g. $E(\mathbf{L}_{is}\epsilon_{it}) \neq 0$ for $s > t$. However, predetermined variables can appropriately be handled by system GMM. In addition, \mathbf{L}_{it-1} , \mathbf{F}_{it-1} and \mathbf{B}_{it-1} are likely to be determined simultaneously. For instance, women experiencing high levels of the double burden might react by retiring from the labour market, employing a home help or sending their children to external child care. For this reason, I also estimate extended regressions which control for a change in labour market participation and other coping mechanisms.

4.4 Data

The present empirical investigation uses data from the Socio-Economic Panel Study (SOEP) a German household panel study, which started in 1984 with about 12,000 individual adult respondents in almost 6,000 households. Since that time several samples have been added, in order to maintain sample size, for example or to increase the number of observations from specific subpopulations like high income households. In 2006 there were about 23,000 adult respondents in more than 12,000 households. The SOEP provides high quality longitudinal data which covers a broad range of topics, for example basic education, labour force participation, health and household characteristics (for details see Wagner et al., 2007). I use SOEP data for years 2001 to 2011, which provides a broad set of longitudinal consistent variables.

The main variable of interest is *self-rated health*. Respondents are asked “*How would you describe your current health?*”, to which they choose an answer on a five point scale with the answers being “*very good*”, “*good*”, “*satisfactory*”, “*poor*” or “*bad*”.

Labour market demands may be measured in different manners, each with its own advantages and disadvantages. Instead of relying on time spent on paid work, I use broad

categories like full-time or part-time employment. This approach is less prone to measurement error.

The same issue applies to *family demands*. I consider children to be a source of increased and more demanding tasks. In particular, it may be difficult to combine paid work and domestic obligations. A first approach uses the number of children below the age of 16. In addition to that, separate analyses are carried out for alternative age groups, like children below the age of three or six which demand even more engagement.

Occupational and firm Characteristics have often been suggested to influence individual health and may be mediated by conflicts between the family and work domain (see for instance Barnett and Brennan, 1995; Janssen et al., 2004 or Peeters et al., 2005). Although the SOEP offers a broad set of occupational characteristics, their usage in panel analysis is limited because many items are not collected on an annual basis. Job prestige is supposed to capture otherwise unobserved employment characteristics, e.g. intellectual demands or provision of health at work. For this reason I include Treiman's Job Prestige Scale (see Ganzeboom and Treiman, 1996). Autonomy in occupational actions has been found to attenuate adverse health effects (for instance Barnett and Brennan, 1995 or Tuttle and Garr, 2009). Autonomy is measured on a six point scale where zero refers to lowest and five to highest autonomy. Finally, I include a binary indicator of whether an individual is a public servant. Firm characteristics are branch of industry⁷ and firm size grouped into firms with less than 21, 21 to 200, 201 to 2000 and more than 2000 employees. As discussed above, \mathbf{L}_{it-1} , \mathbf{F}_{it-1} are simultaneously determined and might therefore represent reactions to excessive strain that have already taken place. Neglecting these *coping mechanisms* might lead to an underestimation of the effect of the double burden. In order to address this issue, I include four variables referring to different coping strategies. Firstly, I control for reductions of labour supply by introducing a binary variable indicating a reduction from period $t - 2$ to $t - 1$. Secondly, I take into account whether a domestic aid has been engaged in $t - 1$. Thirdly, parents might send their children to external childcare or choose full-time care. For this reason, the analysis includes a binary indicator of external care (this comprises kindergarten and childminders as well as school) and a variable representing full-time care in $t - 1$.

Standard Background Controls – This group of variables includes the individual's age as health is supposed to decline as individuals age. Education affects efficiency of health production and captures unobserved but related individual characteristics. Educational

⁷SOEP provides two digit NACE industry codes which have been grouped into primary, secondary and tertiary sector following for instance European Commission Directorate-General for Agriculture and Rural Development (2012).

achievement is measured by years of education completed and squared years of education. Household income describes economic resources available for consumption and health investments. In addition, low household income limits the possibilities of labour market withdrawal due to a lack of resources whereas high income may be related to extended coping mechanisms. However, income is likely to be endogenous with respect to 4.2 since low income in period t may be a result of low health in the same period and vice versa (see for instance Adams et al., 2003; Deaton and Paxson, 1998 or Smith, 1999). For this reason I include a measure of permanent income which is less likely to be endogenous or to be subject to measurement error. It is computed as the logarithmised mean net income based on all available years for each household. Housing conditions provide additional information on financial resources as well as on the living environment. Poor housing conditions may cause respiratory diseases, for example, if there is damp on the walls. The concerning binary variable equals one if there is at least some need for some renovation. Partner’s employment status has to be considered as well, because it reflects potential limitations to coping strategies and time spent with household chores. Additionally, I include a binary variable representing marital status. Cultural background is captured by a binary indicator of non-German citizenship and a variable indicating whether a household lives in East Germany.

All variables are calculated using an unrestricted sample of all women aged between 24 and 60 years, which is the group most likely affected by conflicting demands from the work and family domain. The resulting data set is unbalanced and list-wise deletion is applied. Descriptive sample statistics can be found in table (A.4.1) in the appendix.

4.5 Results

4.5.1 Descriptive Results

Figure (4.1) provides information on the development of full- and part-time employment for men and women as well as average hours spent on household chores like errands, homework, child care and repairs, by type of employment. While female labour force participation has been slightly increasing since 2005, with respect to full- and part-time work, there is only little change in labour force participation among men. Increasing female employment is accompanied by decreasing time spent on household chores. Again, male engagement in housework remains quite stable.⁸

⁸Average hours show cyclical fluctuations which are most likely due to measurement error. Detailed questions concerning hours spent on different activities are asked every second year. These allow us to

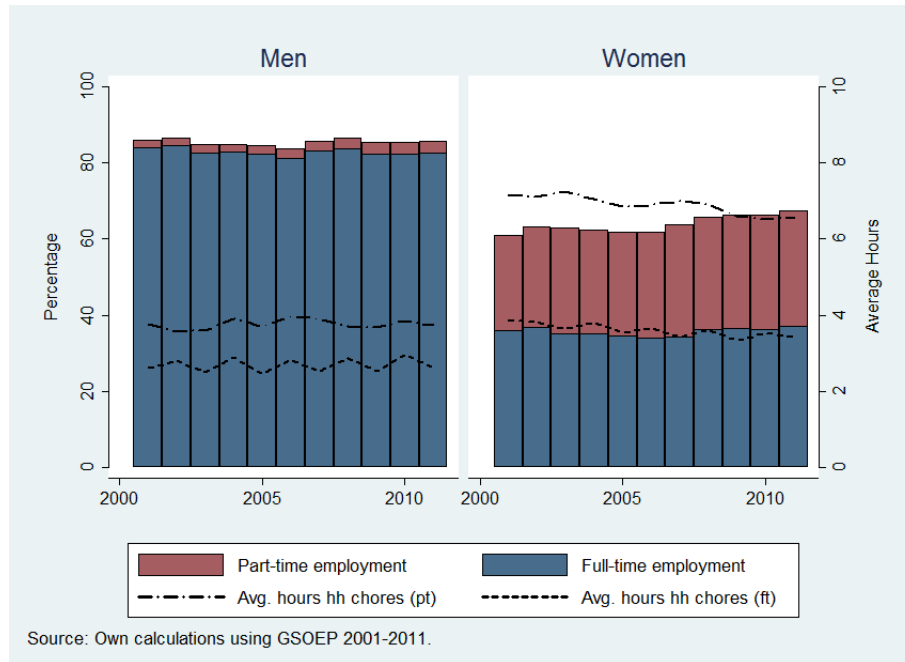


Figure 4.1: Labour force participation and domestic demands

There is a significant difference in contributions to domestic chores between men and women. Full-time employed women spent more time on household tasks than full-time employed men. The gap becomes even more pronounced with respect to part-time employed women. This is in line with findings from other countries (for a more detailed discussion see for example Bianchi and Milkie, 2010). Following these descriptive results, women in particular might face increasing strain from combining labour market and family demands, as men do not increase their contributions to domestic chores in order to offset an increasing burden.

Table (4.1) provides average self-rated health by employment status and number of children. Since this table builds on pooled data, I use age-standardized self-rated health in order to avoid misleading conclusions due to ageing panel population. Lagged values of the demand indicators are used so as to avoid reversed causality as discussed above. It has to be noted, that lower values indicate better health. There is little evidence indicating that mothers are in better health than other women. Women without children being employed full-time seem to be in better health than unemployed women. These differences diminish if ones compares mothers over different employment statuses and therefore do not provide evidence in favour of negative health consequences of the double burden. However, these descriptive results most likely display the selection of women with better health into the

provide information on average hours spent on weekdays, Saturdays and Sundays. Respondents report on average less hours on weekdays if more detailed information is requested.

labour market and into motherhood.

Table 4.1: Mean self-rated health by employment status and number of children

Lagged labour force status	Lagged number of children			
	0	1	2	3+
Singles				
Full-time employed	2.58 (0.22)	2.51 (0.15)	2.49 (0.13)	2.49 (0.12)
Part-time employed	2.69 (0.19)	2.52 (0.14)	2.48 (0.13)	2.43 (0.08)
Not employed	2.72 (0.21)	2.48 (0.17)	2.40 (0.14)	2.39 (0.12)
Couples				
Full-time employed	2.62 (0.21)	2.50 (0.15)	2.47 (0.12)	2.48 (0.11)
Part-time employed	2.72 (0.16)	2.51 (0.15)	2.47 (0.11)	2.48 (0.11)
Not employed	2.77 (0.16)	2.47 (0.18)	2.42 (0.14)	2.42 (0.13)

Source: Own calculations using GSOEP 2001-2011.

Note: Self-rated health is age-standardised.

In the following, I present results from pooled OLS and fixed effects regressions (see table (4.2)).⁹ These provide a good starting point in order to evaluate the impact of neglecting unobserved heterogeneity, predetermined variables and dynamic panel bias. In addition to this, Bond (2002) points out that OLS estimates of the parameter of the lagged endogenous variable may be upward biased whereas within group estimates they may be downward biased and, hence, provide reasonable bounds for the subsequent dynamic analysis.

These predictions are supported by the empirical results presented below. While OLS estimates of γ show a significant path dependency of individual health, that is health in $t - 1$ is positively associated with health in t , fixed effects regressions provide neither significant effects nor the expected sign. According to OLS results, a decrease of health in the prior period by one unit is associated with a decrease of health by about 0.6 standard deviations. Meaningful estimates of dynamic regressions should lie within a range of -0.01 and 0.56 .

With respect to OLS estimates, lagged family demands in terms of the number of children below the age of 16 as well as lagged employment indicators show significantly negative

⁹The adjusted R^2 is calculated using the least squares dummy variable estimator, because this procedure factors in the fraction of variance explained by individual specific effects and, hence is comparable to adjusted R^2 from OLS.

effects, thus indicating that mothers and employed women are in better health than non-mothers or unemployed women. As pointed out above these results are likely to represent selection effects. This is also supported by fixed effect estimates, which do not show significant coefficients. The results provide evidence in favour of the adverse health effects of being exposed to the double burden regarding both estimation methods and irrespective of the chosen specification. This might refer to the fact that this effect is unrelated to unobserved individual characteristics. Including variables which refer to coping mechanisms leads to a slight increase of point estimates for both OLS and fixed effects regressions. Exposure to simultaneous strain from both domains worsens health by about 0.04 or 0.05 standard deviations, e.g. for a women with one child, compared to unemployed women without children. This effect is comparable in size to the impact of living in housing in need of renovation. The results do not change after consideration of potentially mediating job and firm characteristics. Both groups of variables do not exhibit a significant association to individual health. The coefficients of the control variables largely show the expected signs. Age is associated with worse health. Earlier specifications also includes squared age, but it turned out to be insignificant. Educational achievement is related to better health with a slight decrease in its protective effect as more education is completed. This is however, only true with respect to OLS estimates. Logarithmised permanent income is significantly related to better health. Living accommodation in need of renovation is associated with worse health. This might either refer to wealth (as wealthier subjects might have high quality housing as well as a better health) or to structural deficiencies that cause illness due to mould on the walls, for instance. It is somewhat remarkable that living in a single-person household is related to better health, keeping everything else constant.

The models seem to fit the data quite well as indicated by reported F-statistics and the adjusted R^2 . While OLS regressions explain almost 40 percent of total variance, allowing for individual unobserved heterogeneity leads to an increase of the adjusted R^2 to 55 percent. It has to be noted, that the latter also comprises the fraction of variance explained by individual specific effects.

Although both approaches show significant negative associations between double exposure and health, results might still be biased. Labour force and family demand indicators are likely to be predetermined or, to put it another way, affected by past shocks. This also applies to the supposed coping mechanisms.

Table 4.2: OLS and fixed effects regression

	OLS regression			FE regression		
	Base line	Base line + coping	Base line + coping + mediators	Base line	Base line + coping	Base line + coping + mediators
Lagged health						
self assessed health	0.56*** (0.01)	0.56*** (0.01)	0.56*** (0.01)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
Socioeconomic background						
age	0.01*** (0.00)	0.01*** (0.00)	0.01*** (0.00)	0.03*** (0.00)	0.03*** (0.00)	0.03*** (0.00)
education in years	-0.06*** (0.02)	-0.06*** (0.02)	-0.06*** (0.02)	0.15 (0.19)	0.15 (0.19)	0.14 (0.19)
education in years squared	0.00*** (0.00)	0.00*** (0.00)	0.00*** (0.00)	-0.01 (0.01)	-0.01 (0.01)	-0.01 (0.01)
log permanent income	-0.11*** (0.01)	-0.12*** (0.01)	-0.11*** (0.01)			
=1 if housing is in need of renovation	0.07*** (0.01)	0.07*** (0.01)	0.07*** (0.01)	0.03*** (0.01)	0.03*** (0.01)	0.03*** (0.01)
=1 if nationality is not german	-0.04** (0.02)	-0.04** (0.02)	-0.04** (0.02)	-0.17 (0.10)	-0.17 (0.10)	-0.17 (0.10)
=1 if new Laender	-0.02 (0.01)	-0.01 (0.01)	-0.01 (0.01)	0.09 (0.07)	0.09 (0.07)	0.09 (0.07)
=1 if single	-0.04*** (0.01)	-0.04*** (0.01)	-0.04*** (0.01)	-0.05** (0.02)	-0.05** (0.02)	-0.05** (0.02)
Lagged family demands						
number of children in hh, age < 16 years	-0.04*** (0.01)	-0.03*** (0.01)	-0.04*** (0.01)	0.01 (0.01)	0.02 (0.01)	0.02 (0.01)
Lagged labour force demands						
=1 if full-time employed	-0.07*** (0.01)	-0.08*** (0.01)	-0.05** (0.02)	0.02 (0.02)	0.02 (0.02)	0.03 (0.03)
=1 if part-time employed	-0.08*** (0.01)	-0.09*** (0.01)	-0.06** (0.02)	-0.01 (0.02)	-0.01 (0.02)	0.00 (0.03)
Lagged double burden						
number of children × full-time	0.04*** (0.01)	0.05*** (0.01)	0.05*** (0.01)	0.02 (0.02)	0.04** (0.02)	0.04** (0.02)
number of children × part-time	0.04*** (0.01)	0.05*** (0.01)	0.05*** (0.01)	0.02 (0.01)	0.03** (0.02)	0.03** (0.02)
Lagged coping mechanisms						
=1 if empl. status changed from t-1 to t		-0.03** (0.01)	-0.03** (0.01)		-0.00 (0.02)	-0.00 (0.02)
=1 if home help employed		0.03** (0.02)	0.04** (0.02)		0.03 (0.02)	0.03 (0.02)
=1 if youngest child is in inst. care		-0.02** (0.01)	-0.02* (0.01)		-0.03** (0.02)	-0.03** (0.02)
=1 if inst. care is full-time		-0.01 (0.02)	-0.01 (0.02)		-0.02 (0.02)	-0.02 (0.02)
Lagged job characteristics						
job prestige Treiman			-0.00* (0.00)			-0.00 (0.00)
occupational autonomy			-0.01 (0.01)			-0.01 (0.01)
=1 if public employee			-0.00 (0.01)			-0.04** (0.02)
Lagged firm characteristics						
=1 if employed in primary sector			-0.05 (0.08)			-0.02 (0.12)
=1 if employed in secondary sector			-0.06 (0.07)			-0.06 (0.09)
=1 if employed in tertiary sector			-0.04 (0.07)			-0.05 (0.09)
=1 if firm size <20			0.04 (0.08)			0.04 (0.10)
=1 if firm size >=20 and <200			0.06 (0.08)			0.07 (0.10)
=1 if firm size >=200 and <2000			0.08 (0.08)			0.08 (0.10)
=1 if firm size >=2000			0.09 (0.08)			0.09 (0.10)
constant	2.42*** (0.14)	2.48*** (0.14)	2.41*** (0.15)	0.25 (1.35)	0.30 (1.34)	0.32 (1.33)
year effects	yes	yes	yes	yes	yes	yes
Person/ Year-Observations	40 530.00	40 530.00	40 530.00	40 530.00	40 530.00	40 530.00
Number of Persons	7915.00	7915.00	7915.00	7915.00	7915.00	7915.00
F (Prob > F)	610.86 (0.00)	518.78 (0.00)	376.16 (0.00)	16.12 (0.00)	13.93 (0.00)	10.25 (0.00)
Adjusted R2	0.38	0.38	0.38	0.55	0.55	0.55

Source: Own calculations using GSOEP 2001-2011. Note: Unless otherwise stated, robust standard errors are given in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

4.5.2 Dynamic Results

Regression Results

In this section I present and discuss results from system GMM estimation, which are provided in table (4.3). Again, there is a baseline specification incorporating standard controls as well as strain indicators. A second estimation is carried out allowing for coping mechanisms. The final estimate additionally includes potentially mediating variables.

The regression results from table (4.3) do not seem to support the theoretical predictions of Grossman (1972, 2000), on the one hand, as the point estimates are not statistically significantly different from zero. On the other hand, models using second lags as instruments for endogenous variables indicate substantial path dependency, but unsatisfactory model fit as well as invalid instruments (results not shown). Nonetheless, the missing empirical support should not be taken as an argument against the health investment model.

The key variables of interest broadly confirm the results of the OLS and fixed effects estimations. The base line specification provides evidence in favour of a significant negative impact of being simultaneously exposed to demands from the work and family domains for part-time employed women, but not for women working full-time. The magnitude of the effect almost doubles for female part-time employees. Both extended specifications, show significant negative health consequences of the double burden for full-time as well as part-time employed women. The results also indicate, that the strain increases as more children are present in the household. Again, the effect for part-time employed women is larger than for female full-time employees. The magnitude increases compared to the OLS and fixed effects regressions and the dynamic base line regression for both groups. Although the point estimates for full-time employed women are smaller than those for part-time employed women, they are not statistically different from each other at conventional levels of significance.

The control variables broadly show the expected signs. Health decreases with age and increases with education. The health promoting effect of education becomes smaller, the higher the educational level. However, the decrease in productivity of education is very small. Permanent net household income is associated with better individual health. This might either be interpreted as a protective effect of income or, if one suspects permanent income to be endogenous with respect to health, merely as correlation indicating that healthy individuals have greater opportunities to achieve higher levels of income. Housing conditions in terms of need for renovation are associated with worse individual health. As discussed above, this might either incorporate the effects of wealth or the harmful impact

of the state of repair, like damp on the walls for example. There is no difference between Germans and non-Germans, individuals living in the former West and East Germany, or between individuals living as a single or as a couple after controlling for the other variables. While family demands are not significantly related to health, labour force participation is generally associated with better health. This is likely due to the selection of unhealthy individuals out of the labour market. Coping mechanisms, job and firm characteristics exhibit almost no isolated influence on health.¹⁰ All regressions include year dummies in order to account for correlation across individuals in the idiosyncratic errors.

Model Assessment

Discussion of model specification and validity of instruments deserves particular attention when using system GMM. Following Arellano and Bond (1991), it is necessary for twice-lagged residuals not to be autocorrelated for instruments to be valid. While the model requires first-order, there must not be second-order serial correlation. All specifications satisfy these conditions as can be seen from the Arellano-Bond test statistics in table (4.3). The tests for first-order autocorrelation in first differences reject the null hypothesis of no autocorrelation, whilst the tests for second-order serial correlation fail to reject the null hypothesis. Since $T > 3$, I can test validity of overidentifying restrictions and the correctness of model specification by applying the Sargan and the Hansen test statistics. All models fail to reject the null hypothesis of instrument validity and correct model specification at conventional significance levels. The Difference-in-Hansen statistics test exogeneity of different groups of instruments. All tests fail to reject the null hypothesis of exogeneity of the relevant instruments and, hence, suggest validity of employed instruments. Another assumption related to instrument validity is the steady state assumption which is introduced by system GMM. Deviations from long-run values may not be related to individual fixed effects, or to put it another way, the autoregressive coefficient should have a value less than (absolute) unity. The three models presented here, provide support for validity of the steady state assumption and thus for system GMM. As discussed above, OLS and fixed effects estimates provide upper and lower bounds for reasonable values of autoregressive coefficient. All three models are in line with this suggestion. The number of instruments is far below the number of observations and the p-values of the Hansen test statistics for overidentifying restrictions are below one in models two and three, which suggests that

¹⁰One might argue that coping strategies depend on the spouse's labour market participation. For that reason other versions of the regressions presented in table (4.3) include controls for the spouse's labour market participation. Including these variables leads to significant reduction of sample size but does not alter the results.

Table 4.3: Dynamic Regression

	Base line		Base line + coping		Base line + coping + mediators	
Lagged health						
self assessed health	0.18	(0.15)	0.01	(0.12)	0.00	(0.12)
Socioeconomic background						
age	0.03***	(0.00)	0.03***	(0.00)	0.03***	(0.00)
education in years	-0.10***	(0.03)	-0.12***	(0.03)	-0.12***	(0.03)
education in years squared	0.00***	(0.00)	0.00***	(0.00)	0.00***	(0.00)
log permanent income	-0.21***	(0.04)	-0.26***	(0.04)	-0.26***	(0.04)
=1 if housing is in need of renovation	0.08***	(0.02)	0.09***	(0.01)	0.09***	(0.02)
=1 if nationality is not german	-0.06**	(0.03)	-0.06*	(0.03)	-0.06*	(0.03)
=1 if new Laender	-0.01	(0.02)	-0.02	(0.02)	-0.01	(0.02)
=1 if single	0.03	(0.04)	-0.00	(0.05)	0.00	(0.04)
Lagged family demands						
number of children in hh, age < 16 years	0.06	(0.04)	0.02	(0.04)	0.02	(0.04)
Lagged labour force demands						
=1 if full-time employed	-0.10**	(0.05)	-0.15***	(0.05)	-0.22*	(0.11)
=1 if part-time employed	-0.14***	(0.04)	-0.18***	(0.04)	-0.24***	(0.10)
Lagged double burden						
number of children × full-time	0.04	(0.03)	0.06**	(0.03)	0.07**	(0.03)
number of children × part-time	0.08***	(0.03)	0.10***	(0.03)	0.10***	(0.03)
Lagged coping mechanisms						
=1 if empl. status changed from t-1 to t			-0.02	(0.02)	-0.02	(0.02)
=1 if home help employed			0.04	(0.03)	0.04	(0.03)
=1 if youngest child is in inst. care			-0.04*	(0.03)	-0.05*	(0.03)
=1 if inst. care is full-time			-0.03	(0.03)	-0.03	(0.03)
Lagged job characteristics						
job prestige Treiman					-0.00	(0.00)
occupational autonomy					-0.01	(0.01)
=1 if public employee					-0.01	(0.02)
Lagged firm characteristics						
=1 if employed in primary sector					-0.12	(0.12)
=1 if employed in secondary sector					-0.11	(0.09)
=1 if employed in tertiary sector					-0.09	(0.09)
=1 if firm size <20					0.17	(0.12)
=1 if firm size >=20 and <200					0.22*	(0.12)
=1 if firm size >=200 and <2000					0.25**	(0.12)
=1 if firm size >=2000					0.27**	(0.13)
constant	4.02***	(0.79)	5.12***	(0.70)	5.11***	(0.70)
year effects						
Person/ Year-Observations	37 884.00		37 884.00		37 884.00	
Number of Persons	7443.00		7443.00		7443.00	
Number of Instruments used	67.00		103.00		113.00	
Wald chi2 (Prob > chi2)	1925.87	(0.00)	1476.29	(0.00)	1494.14	(0.00)
AB test for AR(1) in first differences (Prob > z)	-4.04	(0.00)	-3.66	(0.00)	-3.64	(0.00)
AB test for AR(2) in first differences (Prob > z)	0.93	(0.35)	-0.29	(0.78)	-0.31	(0.76)
Sargan test of overid. restrictions (Prob > chi2)	22.63	(1.00)	62.66	(0.86)	63.25	(0.85)
Hansen test of overid. restrictions (Prob > chi2)	22.85	(1.00)	56.20	(0.96)	56.38	(0.96)
DIH tests of exog. of GMM instr. subsets (Prob > chi2)	3.10	(0.80)	7.00	(0.73)	7.02	(0.72)
DIH tests of exog. of GMM instr. subsets (Prob > chi2)	1.24	(0.94)	2.60	(0.76)	2.55	(0.77)
DIH tests of exog. of standard IV instrument subsets (Prob > chi2)	5.37	(0.98)	7.51	(0.91)	14.02	(0.96)
DIH tests of exog. of standard IV instrument subsets (Prob > chi2)	1.09	(0.58)	0.18	(0.91)	0.03	(0.99)

Source: Own calculations using GSOEP 2001-2011. Unless otherwise stated, standard errors are given in parentheses. * p<0.10, ** p<0.05, *** p<0.01.

bias due to potentially weak instruments is not an issue (cf. Roodman, 2009). In opposition to the Hansen statistic, the alternative Sargan test statistic is not weakened by many instruments and strongly supports conclusions drawn from the Hansen tests. The overall Wald test confirms joint significance of all coefficients. Using first or second and deeper lags as instruments for predetermined or endogenous variables is typically suggested (cf. for instance Roodman, 2009). However, following this standard approach leads to insufficient model statistics indicating invalid instruments and poor model fit. By increasing minimum lags of instruments for endogenous variables up to at least four, a substantial improvement of model statistics has been achieved.

4.6 Discussion and Conclusion

In the past few years the intersection of family and work life has received increasing attention. Theoretical discourses and empirical investigation are provided by economists far less often than from those in the fields of medicine, psychology and sociology, although adverse effects on individual health and well-being are of considerable economic interest. While theory does not offer clear implications, empirical evidence suggests harmful effects of the double burden.

Irrespective of the vast amount of literature, the majority of studies suffers from several empirical problems which cast doubt on whether the results can be interpreted causally or not. Firstly, the relation of health and employment is not unidirectional and results might be biased due to reversed causation. I tackle this issue by analysing the effect of the double burden in the previous period on the current state of health. Given the limited availability of confounding variables, unobserved heterogeneity plays a crucial role. The econometric methods applied within the scope of analysis allow for dynamic modelling as well as individual fixed effects and control for a broad range of personal and mediating characteristics by using comprehensive panel data. Another problem relates to personal coping strategies. Women who have been struggling with the double burden in the previous period might decide to reduce labour supply or to send their children to institutional child care in the course of two observation points in order to cope with the difficulties. In such a case, health does not deteriorate over time due to lowered stress although harmful effects have been present. The analyses include variables that capture potential coping mechanisms.

The results clearly show the negative effects of the double burden on self-assessed health even after considering confounding variables and individual fixed effects. There is thus

evidence in favour of role strain theories and the empirical results at hand are in line with a large part of the existing literature. Taking coping mechanisms into account yields larger adverse effects on maternal health suggesting that women are at least partially successful in reducing strain. System GMM estimates suggest an even stronger negative impact compared with OLS and fixed effects estimates.

While the question of whether work interferes with family or vice versa has received considerable attention by psychologists and sociologists in recent years, among others Bratberg et al. (2002) the results presented above also suggest that research should specifically address the issue of coping mechanisms. These are relevant from at least two points of view: firstly, a deepened understanding of individual reactions to the double burden facilitates the design of policy measures to support families, and secondly, ignoring coping and selection results in biased estimates as well as potentially misleading conclusions.

In the course of female emancipation women increasingly participate in higher education and receive better qualifications. This goes hand in hand with the increasing labour market engagement of women over the past few decades. In the light of demographic change, which leads to a decline of working age population, fostering higher female participation rates is one political measure to meet demographic challenges. However, at the same time women are supposed to engage in family planning. Taken together, this might lead to excessive demands on families and in particular women. Empirical results point to such excessive demands and the following negative effects of the double burden on maternal health. Politics should therefore make additional effort for easier reconciliation of work and family.

Chapter 5

Concluding discussion

The demographic transition puts considerable pressure on labour markets and public spending in western countries as decades of decreasing fertility and increasing life expectancy result in labour shortage and growing old age dependency ratios. Potential political strategies challenging these developments include, among others, reforms of statutory pension schemes, health care systems and policies aimed at encouraging child bearing. Additionally, increasing female labour force participation is predicted to attenuate the decline of labour force potential in the short run. Therefore, women in particular are confronted with potentially conflicting demands from engaging in both the labour domain and the family domain. Policy makers should be interested in finding out whether this double burden produces negative health consequences which might offset the expected gains. While encouraging people to have families will take effect in the long run, facilitating human capital accumulation in order to increase labour productivity becomes even more important. The theoretical literature on human capital accumulation recognises health as a specific type of human capital which affects the production of cognitive and noncognitive skills (e.g. Heckman, 2007). From a social and health policy point of view it is of considerable interest to have extensive knowledge of how production of human capital can be influenced by policy measures and how different types of human capital are interrelated.

The second chapter of this thesis addresses the question of whether family income has a protective effect on child health. If there is such a protective effect, politicians might strengthen redistributive policies in order to facilitate the production of health capital and to gain positive effects in the long term. The results offered in chapter (2) question this thesis as there is no evidence in favour of permanent family income having a significant effect. It turns out that maternal health in particular is important to the production of child health. In addition to that, child health shows considerable path dependency. These

findings have important implications for the design of policy measures and the understanding of the intergenerational transmission of socioeconomic status and human capital. Firstly, policies should aim at early interventions; secondly, they should use means other than financial redistribution schemes and thirdly, they should also aim at improving parental health. Furthermore the results enable reconciliation of former research with more recent studies as it proves important to recognise the dynamics of health production and unobserved heterogeneity.

The results obtained in chapter (3) stress the importance of child health for its development during childhood. There are considerable intertemporal effects of mental health measured by the hyperactivity/ inattention subdomain of the Strength and Difficulties Questionnaire on cognitive and noncognitive skills. These findings hold true irrespective of family type and child age. Physical health measures are not uniformly associated with developmental outcomes. Only cognitive skills related to spatial awareness are affected by physical conditions. Additionally, there is strong evidence for physical health affecting noncognitive outcomes. The analysis emphasises the importance of taking into account unobserved heterogeneity, otherwise results might be severely (downward) biased. Policies aimed at fostering the development of cognitive and noncognitive skills should also aim at improving child health due to its significant intertemporal impact. Again, early interventions might yield the highest rates of return. In addition to that, policies aiming to improve child health result in a double dividend.

According to the results presented in chapter (4), women seem on average to suffer from the double burden which emerges from reconciling opposing demands from the work and family domains. Women working part or full time and raising children exhibit negative health consequences. This finding has been found to be robust with respect to different specification choices as, for instance, inclusion of potentially confounding variables or application of dynamic estimators. The latter provides results suggesting that maternal health does not show significant path dependency once unobserved heterogeneity is taken into account. This might either reveal that the intertemporal transmission of health is affected by unobserved characteristics or refer to the complex temporal structure of the empirical problem at hand. However, the results suggest that the implementation of work incentives for women and, in particular, for mothers should be aware of potential overload due to combining conflicting demands. Negative health consequences might lower productivity, lead to decreased labour force participation and, with respect to chapter (2), affect the production of the children's human capital. The results also suggest that policies aimed at supporting working mothers might be able to offset adverse health effects.

The empirical approaches employed within this thesis specifically address two sources of endogeneity, namely reversed causation and unobserved heterogeneity. These issues are predominately tackled in the context of dynamic estimation problems. In addition to this, the empirical analyses are based on comprehensive and complex longitudinal data. This combination allows us to overcome several unsolved issues in the existing literature. The analyses conducted in chapters (2) and (4) solve the problem of reversed causation by assuming lagged causal effects. These analyses apply system GMM estimators in order to avoid dynamic panel bias and to account for unobserved heterogeneity as well as endogenous or predetermined regressors. The empirical analysis also imposes a temporal structure in order to overcome reversed causation but parametrises unobserved heterogeneity in a system of two equations and applies Bayesian estimation procedures. All empirical approaches used within this thesis have not been employed before in relation to the issues under consideration.

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List of Figures

3.1	Exemplary Trace Plots	49
3.2	Exemplary Sectional Densities Plot	50
4.1	Labour force participation and domestic demands	75

List of Tables

2.1	Summary of child health indicators	20
2.2	The influence of permanent income on child health (cross-section)	24
2.3	The influence of permanent income on child health (panel)	27
2.4	Determinants of child health – BG + TAC + HHRB + OTHI (panel)	29
3.1	Development of children aged five to seven	40
3.2	Lagged health of children aged five to seven	41
3.4	Bayesian estimates – child development and health (Age 5)	55
3.5	Bayesian estimates – child development and health (Age 7)	57
4.1	Mean self-rated health by employment status and number of children	76
4.2	OLS and fixed effects regression	78
4.3	Dynamic Regression	81
A.2.1	Summary of independent variables	114
A.2.2	Determinants of child health – BG (# of health problems, cross-section)	118
A.2.3	Determinants of child health – BG (# of hospital admissions, cross-section)	119

A.2.4	Determinants of child health – BG + TAC (# of health problems, cross-section)	120
A.2.5	Determinants of child health – BG + TAC (# of hospital admissions, cross-section)	122
A.2.6	Determinants of child health – BG + HHRB (# of health problems, cross-section)	124
A.2.7	Determinants of child health – BG + HHRB (# of hospital admissions, cross-section)	126
A.2.8	Determinants of child health – BG + OTHI (# of health problems, cross-section)	128
A.2.9	Determinants of child health – BG + OTHI (# of hospital admissions, cross-section)	130
A.2.10	Determinants of child health – BG + TAC + HHRB + OTHI (# of health problems, cross-section)	132
A.2.11	Determinants of child health – BG + TAC + HHRB + OTHI (# of hospital admissions, cross-section)	135
A.2.12	Boundaries for lagged health in dynamic models	138
A.2.13	Determinants of child health – BG (panel)	139
A.2.14	Determinants of child health – BG + TAC (panel)	140
A.2.15	Determinants of child health – BG + HHRB (panel)	142
A.2.16	Determinants of child health – BG + OTHI (panel)	143
A.3.1	Summary statistics of control variables	145
A.3.2	ML Estimates: BAS, NFER and # Chronic Conditions (Eq. 1, LP)	149
A.3.3	ML Estimates: BAS, NFER and # Chronic Conditions (Eq. 1, TP)	151
A.3.4	ML Estimates: BAS, NFER and # Hospital Admissions (Eq. 1, LP)	153
A.3.5	ML Estimates: BAS, NFER and # Hospital Admissions (Eq. 1, TP)	155
A.3.6	ML Estimates: BAS, NFER and SDQ HA (Eq. 1, LP)	157
A.3.7	ML Estimates: BAS, NFER and SDQ HA (Eq. 1, TP)	159
A.3.8	ML Estimates: SDQ and # Chronic Conditions (Eq. 1, LP)	161
A.3.9	ML Estimates: SDQ and # Chronic Conditions (Eq. 1, TP)	163
A.3.10	ML Estimates: SDQ and # Hospital Admissions (Eq. 1, LP)	165
A.3.11	ML Estimates: SDQ and # Hospital Admissions (Eq. 1, TP)	167
A.3.12	ML Estimates: SDQ and SDQ HA (Eq. 1, LP)	169
A.3.13	ML Estimates: SDQ and SDQ HA (Eq. 1, TP)	171
A.3.14	ML Estimates: CSR and # Chronic Conditions (Eq. 1, LP)	173

A.3.15	ML Estimates: CSR and # Chronic Conditions (Eq. 1, TP)	175
A.3.16	ML Estimates: CSR and # Hospital Admissions (Eq. 1, LP)	177
A.3.17	ML Estimates: CSR and # Hospital Admissions (Eq. 1, TP)	179
A.3.18	ML Estimates: CSR and SDQ HA (Eq. 1, LP)	181
A.3.19	ML Estimates: CSR and SDQ HA (Eq. 1, TP)	183
A.3.20	ML Estimates: Health (Eq. 2, LP)	185
A.3.21	ML Estimates: Health (Eq. 2, TP)	188
A.3.22	Bayesian Estimates: BAS and # Chronic Conditions (Eq. 1, LP, Age 5) .	191
A.3.23	Bayesian Estimates: BAS and # Chronic Conditions (Eq. 1, TP, Age 5) .	193
A.3.24	Bayesian Estimates: BAS and # Chronic Conditions (Eq. 2, LP, Age 5) .	195
A.3.25	Bayesian Estimates: BAS and # Chronic Conditions (Eq. 2, TP, Age 5) .	197
A.3.26	Bayesian Estimates: BAS and # Hospital Admissions (Eq. 1, LP, Age 5) .	199
A.3.27	Bayesian Estimates: BAS and # Hospital Admissions (Eq. 1, TP, Age 5) .	201
A.3.28	Bayesian Estimates: BAS and # Hospital Admissions (Eq. 2, LP, Age 5) .	203
A.3.29	Bayesian Estimates: BAS and # Hospital Admissions (Eq. 2, TP, Age 5) .	205
A.3.30	Bayesian Estimates: BAS and SDQ HA (Eq. 1, LP, Age 5)	207
A.3.31	Bayesian Estimates: BAS and SDQ HA (Eq. 1, TP, Age 5)	209
A.3.32	Bayesian Estimates: BAS and SDQ HA (Eq. 2, LP, Age 5)	211
A.3.33	Bayesian Estimates: BAS and SDQ HA (Eq. 2, TP, Age 5)	214
A.3.34	Bayesian Estimates: SDQ ES/ CP and # Chronic Conditions (Eq. 1, LP, Age 5)	217
A.3.35	Bayesian Estimates: SDQ ES/ CP and # Chronic Conditions (Eq. 1, TP, Age 5)	219
A.3.36	Bayesian Estimates: SDQ ES/ CP and # Chronic Conditions (Eq. 2, LP, Age 5)	221
A.3.37	Bayesian Estimates: SDQ ES/ CP and # Chronic Conditions (Eq. 2, TP, Age 5)	223
A.3.38	Bayesian Estimates: SDQ PR/ PB and # Chronic Conditions (Eq. 1, LP, Age 5)	225
A.3.39	Bayesian Estimates: SDQ PR/ PB and # Chronic Conditions (Eq. 1, TP, Age 5)	227
A.3.40	Bayesian Estimates: SDQ PR/ PB and # Chronic Conditions (Eq. 2, LP, Age 5)	229
A.3.41	Bayesian Estimates: SDQ PR/ PB and # Chronic Conditions (Eq. 2, TP, Age 5)	231

A.3.42	Bayesian Estimates: SDQ ES/ CP and # Hospital Admissions (Eq. 1, LP, Age 5)	233
A.3.43	Bayesian Estimates: SDQ ES/ CP and # Hospital Admissions (Eq. 1, TP, Age 5)	235
A.3.44	Bayesian Estimates: SDQ ES/ CP and # Hospital Admissions (Eq. 2, LP, Age 5)	237
A.3.45	Bayesian Estimates: SDQ ES/ CP and # Hospital Admissions (Eq. 2, TP, Age 5)	239
A.3.46	Bayesian Estimates: SDQ PR/ PB and # Hospital Admissions (Eq. 1, LP, Age 5)	241
A.3.47	Bayesian Estimates: SDQ PR/ PB and # Hospital Admissions (Eq. 1, TP, Age 5)	243
A.3.48	Bayesian Estimates: SDQ PR/ PB and # Hospital Admissions (Eq. 2, LP, Age 5)	245
A.3.49	Bayesian Estimates: SDQ PR/ PB and # Hospital Admissions (Eq. 2, TP, Age 5)	247
A.3.50	Bayesian Estimates: SDQ ES/ CP and SDQ HA (Eq. 1, LP, Age 5)	249
A.3.51	Bayesian Estimates: SDQ ES/ CP and SDQ HA (Eq. 1, TP, Age 5)	251
A.3.52	Bayesian Estimates: SDQ ES/ CP and SDQ HA (Eq. 2, LP, Age 5)	253
A.3.53	Bayesian Estimates: SDQ ES/ CP and SDQ HA (Eq. 2, TP, Age 5)	256
A.3.54	Bayesian Estimates: SDQ PR/ PB and SDQ HA (Eq. 1, LP, Age 5)	259
A.3.55	Bayesian Estimates: SDQ PR/ PB and SDQ HA (Eq. 1, TP, Age 5)	261
A.3.56	Bayesian Estimates: SDQ PR/ PB and SDQ HA (Eq. 2, LP, Age 5)	263
A.3.57	Bayesian Estimates: SDQ PR/ PB and SDQ HA (Eq. 2, TP, Age 5)	266
A.3.58	Bayesian Estimates: CSR and # Chronic Conditions (Eq. 1, LP, Age 5)	269
A.3.59	Bayesian Estimates: CSR and # Chronic Conditions (Eq. 1, TP, Age 5)	271
A.3.60	Bayesian Estimates: CSR and # Chronic Conditions (Eq. 2, LP, Age 5)	273
A.3.61	Bayesian Estimates: CSR and # Chronic Conditions (Eq. 2, TP, Age 5)	275
A.3.62	Bayesian Estimates: CSR and # Hospital Admissions (Eq. 1, LP, Age 5)	277
A.3.63	Bayesian Estimates: CSR and # Hospital Admissions (Eq. 1, TP, Age 5)	279
A.3.64	Bayesian Estimates: CSR and # Hospital Admissions (Eq. 2, LP, Age 5)	281
A.3.65	Bayesian Estimates: CSR and # Hospital Admissions (Eq. 2, TP, Age 5)	283
A.3.66	Bayesian Estimates: CSR and SDQ HA (Eq. 1, LP, Age 5)	285
A.3.67	Bayesian Estimates: CSR and SDQ HA (Eq. 1, TP, Age 5)	287
A.3.68	Bayesian Estimates: CSR and SDQ HA (Eq. 2, LP, Age 5)	289

A.3.69	Bayesian Estimates: CSR and SDQ HA (Eq. 2, TP, Age 5)	292
A.3.70	Bayesian Estimates: BAS, NFER and # Chronic Conditions (Eq. 1, LP, Age 7)	295
A.3.71	Bayesian Estimates: BAS, NFER and # Chronic Conditions (Eq. 1, TP, Age 7)	297
A.3.72	Bayesian Estimates: BAS, NFER and # Chronic Conditions (Eq. 2, LP, Age 7)	299
A.3.73	Bayesian Estimates: BAS, NFER and # Chronic Conditions (Eq. 2, TP, Age 7)	301
A.3.74	Bayesian Estimates: BAS, NFER and # Hospital Admissions (Eq. 1, LP, Age 7)	303
A.3.75	Bayesian Estimates: BAS, NFER and # Hospital Admissions (Eq. 1, TP, Age 7)	305
A.3.76	Bayesian Estimates: BAS, NFER and # Hospital Admissions (Eq. 2, LP, Age 7)	307
A.3.77	Bayesian Estimates: BAS, NFER and # Hospital Admissions (Eq. 2, TP, Age 7)	309
A.3.78	Bayesian Estimates: BAS, NFER and SDQ HA (Eq. 1, LP, Age 7)	311
A.3.79	Bayesian Estimates: BAS, NFER and SDQ HA (Eq. 1, TP, Age 7)	313
A.3.80	Bayesian Estimates: BAS, NFER and SDQ HA (Eq. 2, LP, Age 7)	315
A.3.81	Bayesian Estimates: BAS, NFER and SDQ HA (Eq. 2, TP, Age 7)	318
A.3.82	Bayesian Estimates: SDQ ES/ CP and # Chronic Conditions (Eq. 1, LP, Age 7)	321
A.3.83	Bayesian Estimates: SDQ ES/ CP and # Chronic Conditions (Eq. 1, TP, Age 7)	323
A.3.84	Bayesian Estimates: SDQ ES/ CP and # Chronic Conditions (Eq. 2, LP, Age 7)	325
A.3.85	Bayesian Estimates: SDQ ES/ CP and # Chronic Conditions (Eq. 2, TP, Age 7)	327
A.3.86	Bayesian Estimates: SDQ PR/ PB and # Chronic Conditions (Eq. 1, LP, Age 7)	329
A.3.87	Bayesian Estimates: SDQ PR/ PB and # Chronic Conditions (Eq. 1, TP, Age 7)	331
A.3.88	Bayesian Estimates: SDQ PR/ PB and # Chronic Conditions (Eq. 2, LP, Age 7)	333

A.3.89	Bayesian Estimates: SDQ PR/ PB and # Chronic Conditions (Eq. 2, TP, Age 7)	335
A.3.90	Bayesian Estimates: SDQ ES/ CP and # Hospital Admissions (Eq. 1, LP, Age 7)	337
A.3.91	Bayesian Estimates: SDQ ES/ CP and # Hospital Admissions (Eq. 1, TP, Age 7)	339
A.3.92	Bayesian Estimates: SDQ ES/ CP and # Hospital Admissions (Eq. 2, LP, Age 7)	341
A.3.93	Bayesian Estimates: SDQ ES/ CP and # Hospital Admissions (Eq. 2, TP, Age 7)	343
A.3.94	Bayesian Estimates: SDQ PR/ PB and # Hospital Admissions (Eq. 1, LP, Age 7)	345
A.3.95	Bayesian Estimates: SDQ PR/ PB and # Hospital Admissions (Eq. 1, TP, Age 7)	347
A.3.96	Bayesian Estimates: SDQ PR/ PB and # Hospital Admissions (Eq. 2, LP, Age 7)	349
A.3.97	Bayesian Estimates: SDQ PR/ PB and # Hospital Admissions (Eq. 2, TP, Age 7)	351
A.3.98	Bayesian Estimates: SDQ ES/ CP and SDQ HA (Eq. 1, LP, Age 7)	353
A.3.99	Bayesian Estimates: SDQ ES/ CP and SDQ HA (Eq. 1, TP, Age 7)	355
A.3.100	Bayesian Estimates: SDQ ES/ CP and SDQ HA (Eq. 2, LP, Age 7)	357
A.3.101	Bayesian Estimates: SDQ ES/ CP and SDQ HA (Eq. 2, TP, Age 7)	360
A.3.102	Bayesian Estimates: SDQ PR/ PB and SDQ HA (Eq. 1, LP, Age 7)	363
A.3.103	Bayesian Estimates: SDQ PR/ PB and SDQ HA (Eq. 1, TP, Age 7)	365
A.3.104	Bayesian Estimates: SDQ PR/ PB and SDQ HA (Eq. 2, LP, Age 7)	367
A.3.105	Bayesian Estimates: SDQ PR/ PB and SDQ HA (Eq. 2, TP, Age 7)	370
A.3.106	Bayesian Estimates: CSR and # Chronic Conditions (Eq. 1, LP, Age 7) . .	373
A.3.107	Bayesian Estimates: CSR and # Chronic Conditions (Eq. 1, TP, Age 7) . .	375
A.3.108	Bayesian Estimates: CSR and # Chronic Conditions (Eq. 2, LP, Age 7) . .	377
A.3.109	Bayesian Estimates: CSR and # Chronic Conditions (Eq. 2, TP, Age 7) . .	379
A.3.110	Bayesian Estimates: CSR and # Hospital Admissions (Eq. 1, LP, Age 7) . .	381
A.3.111	Bayesian Estimates: CSR and # Hospital Admissions (Eq. 1, TP, Age 7) . .	383
A.3.112	Bayesian Estimates: CSR and # Hospital Admissions (Eq. 2, LP, Age 7) . .	385
A.3.113	Bayesian Estimates: CSR and # Hospital Admissions (Eq. 2, TP, Age 7) . .	387
A.3.114	Bayesian Estimates: CSR and SDQ HA (Eq. 1, LP, Age 7)	389

A.3.115	Bayesian Estimates: CSR and SDQ HA (Eq. 1, TP, Age 7)	391
A.3.116	Bayesian Estimates: CSR and SDQ HA (Eq. 2, LP, Age 7)	393
A.3.117	Bayesian Estimates: CSR and SDQ HA (Eq. 2, TP, Age 7)	396
A.4.1	Summary statistics	400

Appendices

Appendix 2

Table A.2.1: Summary of indepdent variables

Variable	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
Income												
log of permanent family income (weekly, imp.)	6.22	0.49	6.23	0.49	6.23	0.50	5.33	0.48	5.42	0.51	5.51	0.54
Standard background controls												
<i>Maternal highest national vocational qualification</i>												
=1 if NVQ level 1	0.07	0.25	0.06	0.24	0.06	0.24	0.12	0.33	0.11	0.32	0.09	0.29
=1 if NVQ level 2	0.28	0.45	0.27	0.44	0.26	0.44	0.34	0.47	0.33	0.47	0.32	0.47
=1 if NVQ level 3	0.16	0.37	0.16	0.37	0.16	0.37	0.17	0.37	0.16	0.37	0.16	0.37
=1 if NVQ level 4 or 5	0.41	0.49	0.43	0.50	0.45	0.50	0.19	0.39	0.24	0.43	0.29	0.45
=1 if overseas qual. only	0.02	0.13	0.01	0.12	0.01	0.12	0.02	0.14	0.03	0.16	0.02	0.15
=1 if none of these	0.06	0.24	0.06	0.23	0.05	0.22	0.16	0.37	0.13	0.34	0.12	0.32
<i>Mother's age at birth</i>												
less than 20 years	0.04	0.19	0.04	0.20	0.05	0.21	0.22	0.42	0.19	0.39	0.15	0.36
20 to 24 years	0.13	0.34	0.13	0.34	0.13	0.34	0.28	0.45	0.24	0.43	0.23	0.42
25 to 29 years	0.29	0.45	0.29	0.45	0.29	0.45	0.23	0.42	0.27	0.44	0.27	0.44
30 to 34 years	0.35	0.48	0.35	0.48	0.35	0.48	0.16	0.37	0.20	0.40	0.23	0.42
more than 35 years	0.19	0.39	0.19	0.39	0.19	0.39	0.10	0.30	0.11	0.31	0.12	0.32
<i>Child demography</i>												
=1 if female	0.49	0.50	0.49	0.50	0.49	0.50	0.50	0.50	0.49	0.50	0.49	0.50
age (days)	1138.76	65.74	1900.65	87.56	2635.18	88.03	1154.31	83.67	1911.19	91.35	2640.67	91.46
<i>Child's ethnicity</i>												
=1 if white	0.93	0.26	0.93	0.26	0.93	0.26	0.88	0.33	0.89	0.31	0.89	0.31
=1 if mixed	0.02	0.13	0.02	0.13	0.02	0.13	0.05	0.22	0.04	0.20	0.04	0.20
=1 if indian	0.02	0.13	0.02	0.13	0.02	0.13	0.01	0.07	0.01	0.07	0.01	0.08
=1 if pakistani or bangladeshi	0.02	0.15	0.02	0.15	0.02	0.15	0.01	0.11	0.01	0.12	0.02	0.14
=1 if black	0.01	0.10	0.01	0.10	0.01	0.10	0.05	0.22	0.04	0.20	0.04	0.18
=1 if other	0.01	0.07	0.01	0.07	0.01	0.07	0.00	0.06	0.01	0.08	0.01	0.07
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	0.05	0.22	0.05	0.22	0.05	0.22	0.07	0.26	0.07	0.26	0.07	0.25

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Table A.2.1 – continued from previous page

Variable	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
<i>Size of household</i>												
log of hh size incl. cm	1.41	0.23	1.46	0.21	1.50	0.21	1.08	0.35	1.12	0.34	1.21	0.32
<i>Number of older siblings</i>												
no older siblings	0.41	0.49	0.41	0.49	0.42	0.49	0.52	0.50	0.49	0.50	0.46	0.50
one older sibling	0.38	0.49	0.38	0.49	0.38	0.49	0.29	0.45	0.31	0.46	0.32	0.46
two or more older siblings	0.21	0.41	0.21	0.41	0.20	0.40	0.18	0.39	0.20	0.40	0.22	0.42
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	0.99	0.08	0.99	0.11	0.98	0.12	0.98	0.13	0.98	0.13	0.97	0.16
<i>Country where interview took place</i>												
=1 if england	0.61	0.49	0.61	0.49	0.61	0.49	0.59	0.49	0.60	0.49	0.60	0.49
=1 if wales	0.16	0.36	0.16	0.36	0.16	0.36	0.19	0.39	0.17	0.38	0.18	0.38
=1 if nireland	0.10	0.30	0.10	0.30	0.10	0.30	0.11	0.31	0.11	0.31	0.10	0.30
=1 if scotland	0.13	0.34	0.13	0.34	0.14	0.34	0.11	0.31	0.11	0.32	0.12	0.32
Time and care												
<i>Time mother spends with child</i>												
=1 if plenty	0.63	0.48	0.22	0.42	0.23	0.42	0.68	0.47	0.30	0.46	0.26	0.44
=1 if just enough	0.16	0.37	0.45	0.50	0.45	0.50	0.14	0.35	0.40	0.49	0.39	0.49
=1 if not enough	0.21	0.41	0.33	0.47	0.33	0.47	0.18	0.38	0.30	0.46	0.35	0.48
<i>Childcare</i>												
=1 if no childcare	0.59	0.49	0.61	0.49	0.59	0.49	0.57	0.50	0.57	0.49	0.53	0.50
=1 if formal childcare	0.20	0.40	0.06	0.23	0.05	0.23	0.18	0.39	0.05	0.23	0.06	0.25
=1 if informal/ other childcare	0.04	0.19	0.07	0.26	0.09	0.29	0.06	0.23	0.09	0.29	0.12	0.32
=1 if grandparent care	0.17	0.38	0.25	0.43	0.25	0.43	0.19	0.39	0.26	0.44	0.25	0.43
<i>Maternal employment (t - 1)</i>												
=1 if does not work	0.38	0.49	0.33	0.47	0.29	0.45	0.61	0.49	0.50	0.50	0.43	0.49
=1 if part-time	0.57	0.50	0.61	0.49	0.65	0.48	0.35	0.48	0.45	0.50	0.52	0.50
=1 if full-time	0.05	0.22	0.06	0.23	0.07	0.25	0.05	0.21	0.05	0.22	0.05	0.23
<i>How long mother breastfed child</i>												
=1 if never	0.27	0.45	0.28	0.45	0.28	0.45	0.48	0.50	0.44	0.50	0.42	0.49

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Table A.2.1 – continued from previous page

Variable	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
=1 if for less than 7 days	0.11	0.32	0.11	0.31	0.11	0.32	0.12	0.33	0.13	0.34	0.13	0.33
=1 if for at least 1 week to 3 months	0.25	0.43	0.25	0.43	0.25	0.44	0.24	0.43	0.24	0.43	0.24	0.43
=1 if for 4 to 6 months	0.15	0.36	0.16	0.36	0.15	0.36	0.07	0.26	0.08	0.27	0.09	0.29
=1 if for more than 6 months	0.21	0.40	0.21	0.40	0.20	0.40	0.09	0.29	0.11	0.31	0.12	0.32
<i>If child is naughty...</i>												
=1 if mother smacks child	0.10	0.29	0.01	0.12	0.01	0.09	0.11	0.31	0.02	0.13	0.01	0.11
=1 if mother tells child off	0.84	0.36	0.61	0.49	0.53	0.50	0.81	0.39	0.58	0.49	0.50	0.50
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	0.82	0.38	0.92	0.27	0.92	0.26	0.76	0.43	0.87	0.33	0.89	0.32
<i>Daily TV/ video consumption</i>												
=1 if no tv/ videos	0.01	0.10	0.02	0.13	0.02	0.13	0.01	0.11	0.02	0.13	0.02	0.12
=1 if up to 1 hour tv/ videos	0.22	0.42	0.20	0.40	0.19	0.39	0.20	0.40	0.17	0.37	0.17	0.38
=1 if more than 1 hour, less than 3 hours tv/ videos	0.62	0.49	0.65	0.48	0.65	0.48	0.59	0.49	0.63	0.48	0.64	0.48
=1 if more than 3 hours tv/ videos	0.15	0.35	0.13	0.34	0.14	0.35	0.20	0.40	0.18	0.38	0.18	0.38
<i>How often mother reads to the child</i>												
=1 if every day	0.64	0.48	0.54	0.50	0.44	0.50	0.53	0.50	0.51	0.50	0.41	0.49
=1 if several times a week	0.31	0.46	0.42	0.49	0.47	0.50	0.39	0.49	0.43	0.50	0.49	0.50
=1 if occasionally	0.04	0.19	0.04	0.19	0.07	0.26	0.06	0.23	0.05	0.21	0.08	0.28
=1 if never	0.01	0.10	0.00	0.07	0.02	0.13	0.03	0.16	0.01	0.10	0.02	0.15
Health and health related behaviour												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.21	0.41	0.23	0.42	0.24	0.43	0.26	0.44	0.27	0.45	0.29	0.45
<i>Maternal mental health (dichotomised)</i>												
=1 if high distress	0.02	0.14	0.02	0.15	0.02	0.15	0.07	0.26	0.06	0.24	0.06	0.24
<i>Does mother currently smoke</i>												
=1 if currently smokes	0.24	0.43	0.22	0.41	0.21	0.41	0.55	0.50	0.52	0.50	0.47	0.50
<i>How often mother drinks alcohol</i>												
=1 if less than once a month	0.34	0.47	0.33	0.47	0.32	0.46	0.39	0.49	0.33	0.47	0.35	0.48
=1 if 1-2 times per month	0.18	0.39	0.19	0.39	0.18	0.38	0.23	0.42	0.23	0.42	0.20	0.40

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Table A.2.1 – continued from previous page

Variable	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD	Mean	SD
=1 if 1-2 times per week	0.29	0.45	0.28	0.45	0.30	0.46	0.28	0.45	0.31	0.46	0.29	0.46
=1 if at least 3 times a week	0.19	0.39	0.21	0.41	0.21	0.41	0.10	0.30	0.13	0.33	0.16	0.36
Other												
<i>Housing tenure</i>												
=1 if mortgaged/owned	0.80	0.40	0.81	0.39	0.82	0.39	0.21	0.40	0.28	0.45	0.34	0.47
=1 if council rented	0.09	0.29	0.08	0.27	0.08	0.26	0.35	0.48	0.30	0.46	0.27	0.44
=1 if rented (housing association or private)/ other	0.11	0.31	0.11	0.31	0.11	0.31	0.44	0.50	0.42	0.49	0.40	0.49
<i>Problems with damp on the wall</i>												
=1 if at least some problems	0.05	0.22	0.05	0.23	0.06	0.25	0.10	0.30	0.10	0.30	0.11	0.31
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	0.98	0.15	0.96	0.18	0.96	0.20	0.93	0.25	0.94	0.24	0.93	0.25
<i>Maternal grandfathers' SES when respondent was aged 14</i>												
=1 if was not working	0.06	0.24	0.06	0.24	0.06	0.24	0.13	0.34	0.12	0.32	0.11	0.31
=1 if managerial/ professional occupation	0.22	0.41	0.22	0.41	0.22	0.41	0.13	0.33	0.14	0.34	0.14	0.35
=1 if intermediate occupation	0.22	0.41	0.22	0.41	0.21	0.41	0.17	0.37	0.18	0.39	0.19	0.39
=1 if technical, semi-routine or routine occupation	0.35	0.48	0.35	0.48	0.35	0.48	0.37	0.48	0.36	0.48	0.36	0.48
=1 if can't remember or father died	0.06	0.23	0.06	0.23	0.06	0.23	0.11	0.31	0.10	0.30	0.09	0.28
Observations	7717		7509		7333		1250		1473		1649	

Note: Own calculations based on MCS sweeps 1 to 4. Balanced panel containing all households.

Table A.2.2: Determinants of child health – BG (# of health problems, cross-section)

	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
Income												
log of permanent family Income (weekly, imp.)	-0.03*	(0.01)	-0.07***	(0.02)	-0.07***	(0.02)	-0.05	(0.04)	-0.10**	(0.04)	-0.10***	(0.04)
Standard background controls												
<i>Maternal highest national vocational qualification</i>												
=1 if NVQ level 1	-0.05**	(0.02)	-0.02	(0.03)	-0.04	(0.03)	-0.08	(0.06)	-0.01	(0.07)	-0.05	(0.06)
=1 if NVQ level 2	-0.01	(0.01)	-0.02	(0.02)	-0.01	(0.02)	-0.02	(0.04)	0.01	(0.04)	-0.03	(0.04)
=1 if NVQ level 3	-0.00	(0.01)	-0.02	(0.02)	-0.04**	(0.02)	0.04	(0.05)	0.04	(0.05)	-0.04	(0.05)
=1 if overseas qual. only	0.01	(0.05)	0.05	(0.06)	0.08	(0.07)	-0.21***	(0.07)	-0.04	(0.08)	-0.15**	(0.07)
=1 if none of these	-0.02	(0.02)	-0.04	(0.03)	-0.02	(0.03)	-0.08	(0.05)	-0.01	(0.07)	0.01	(0.06)
<i>Mother's age at birth</i>												
less than 20 years	-0.02	(0.03)	-0.04	(0.04)	-0.00	(0.04)	0.01	(0.08)	-0.04	(0.07)	-0.09	(0.07)
20 to 24 years	0.01	(0.02)	0.00	(0.02)	-0.03	(0.03)	-0.03	(0.06)	0.08	(0.07)	-0.01	(0.06)
25 to 29 years	0.02	(0.02)	0.01	(0.02)	-0.01	(0.02)	0.05	(0.06)	0.02	(0.05)	-0.01	(0.05)
30 to 34 years	0.00	(0.01)	-0.00	(0.02)	-0.01	(0.02)	-0.01	(0.07)	0.06	(0.05)	-0.02	(0.05)
<i>Child demography</i>												
=1 if female	-0.02**	(0.01)	-0.08***	(0.01)	-0.07***	(0.01)	-0.09***	(0.03)	-0.07**	(0.03)	-0.05*	(0.03)
age (days)	0.00	(0.00)	0.00***	(0.00)	0.00*	(0.00)	-0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
<i>Child's ethnicity</i>												
=1 if mixed	0.02	(0.05)	0.03	(0.05)	0.02	(0.05)	0.01	(0.06)	-0.08	(0.09)	-0.03	(0.06)
=1 if indian	-0.04	(0.03)	-0.06	(0.05)	-0.01	(0.05)	-0.10	(0.16)	0.00	(0.17)	-0.14	(0.13)
=1 if pakistani or bangladeshi	0.03	(0.04)	-0.02	(0.04)	-0.02	(0.03)	0.20	(0.20)	-0.01	(0.08)	0.02	(0.16)
=1 if black	0.02	(0.07)	-0.07	(0.06)	-0.01	(0.06)	0.04	(0.13)	-0.05	(0.08)	0.05	(0.11)
=1 if other	-0.03	(0.06)	-0.03	(0.09)	-0.02	(0.07)	-0.13	(0.21)	-0.24***	(0.04)	-0.22***	(0.04)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	0.11***	(0.03)	0.09***	(0.03)	0.14***	(0.04)	-0.01	(0.05)	0.12*	(0.07)	0.14**	(0.06)
<i>Size of household</i>												
log of hh size incl. cm	-0.05	(0.03)	-0.05	(0.04)	-0.04	(0.04)	0.03	(0.05)	-0.06	(0.05)	0.06	(0.06)
<i>Number of older siblings</i>												
no older siblings	-0.04***	(0.01)	-0.01	(0.02)	-0.01	(0.02)	-0.13***	(0.04)	-0.02	(0.04)	0.02	(0.04)
two or more older siblings	-0.01	(0.02)	-0.01	(0.02)	-0.03*	(0.02)	-0.09*	(0.05)	0.03	(0.06)	-0.03	(0.05)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	-0.01	(0.06)	0.10**	(0.04)	0.08	(0.05)	-0.12	(0.15)	0.05	(0.12)	0.06	(0.07)
<i>Country where interview took place</i>												
=1 if wales	0.15**	(0.07)	0.11**	(0.06)	0.06	(0.05)	0.16	(0.12)	-0.06	(0.15)	-0.06	(0.13)
=1 if nireland	0.21	(0.26)	-0.11	(0.12)	-0.03	(0.06)	-0.23**	(0.09)	-0.09	(0.20)	-0.30***	(0.06)
=1 if scotland	-0.14*	(0.08)	-0.25***	(0.09)	-0.04	(0.08)	-0.42***	(0.12)	-0.56**	(0.25)	0.33	(0.21)
Constant	0.39**	(0.15)	0.32	(0.20)	0.35	(0.26)	0.98***	(0.35)	0.66	(0.43)	0.29	(0.47)
Number of cohort members	7717.00		7509.00		7333.00		1250.00		1473.00		1649.00	
Overall F <i>Prob</i> > F	2.43	(0.00)	4.14	(0.00)	3.50	(0.00)	2.62	(0.00)	5.03	(0.00)	.	(.)
Adjusted R ²	0.01		0.01		0.01		0.02		0.00		0.01	

Note: Own calculations based on MCS sweeps 2 to 4. Balanced panel containing all households. * p<0.10, ** p<0.05, *** p<0.01

Table A.2.3: Determinants of child health – BG (# of hospital admissions, cross-section)

	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
Income												
log of permanent family Income (weekly, imp.)	-0.02	(0.02)	-0.02	(0.02)	-0.01	(0.01)	-0.01	(0.07)	-0.02	(0.04)	-0.06	(0.05)
Standard Background Controls												
<i>Maternal highest national vocational qualification</i>												
=1 if NVQ level 1	-0.05	(0.04)	0.04	(0.03)	-0.01	(0.02)	-0.11	(0.12)	-0.06	(0.07)	0.01	(0.05)
=1 if NVQ level 2	0.02	(0.02)	0.02	(0.02)	0.04***	(0.02)	-0.04	(0.10)	-0.04	(0.05)	0.06*	(0.03)
=1 if NVQ level 3	-0.00	(0.02)	-0.01	(0.02)	0.01	(0.02)	-0.03	(0.12)	-0.01	(0.06)	0.06*	(0.04)
=1 if overseas qual. only	-0.06	(0.04)	0.15**	(0.06)	-0.00	(0.04)	-0.32***	(0.12)	-0.11	(0.09)	-0.07	(0.05)
=1 if none of these	0.04	(0.05)	-0.00	(0.03)	0.06	(0.05)	-0.21*	(0.11)	0.05	(0.08)	0.03	(0.06)
<i>Mother's age at birth</i>												
less than 20 years	0.15**	(0.06)	0.01	(0.04)	-0.01	(0.04)	0.09	(0.11)	-0.09	(0.08)	-0.03	(0.08)
20 to 24 years	0.14***	(0.04)	0.00	(0.03)	-0.00	(0.02)	0.01	(0.10)	-0.03	(0.07)	-0.03	(0.05)
25 to 29 years	0.04*	(0.02)	0.03	(0.02)	0.00	(0.02)	0.06	(0.10)	-0.09	(0.07)	-0.01	(0.04)
30 to 34 years	0.02	(0.02)	0.02	(0.02)	-0.00	(0.02)	0.02	(0.11)	-0.09	(0.07)	-0.05	(0.03)
<i>Child demography</i>												
=1 if female	-0.07***	(0.02)	-0.06***	(0.01)	-0.04***	(0.01)	-0.08	(0.06)	-0.05	(0.03)	-0.03	(0.02)
age (days)	0.00**	(0.00)	-0.00	(0.00)	-0.00	(0.00)	0.00	(0.00)	-0.00	(0.00)	0.00	(0.00)
<i>Child's ethnicity</i>												
=1 if mixed	-0.00	(0.06)	-0.03	(0.04)	-0.06***	(0.02)	-0.16*	(0.09)	-0.03	(0.06)	-0.08**	(0.04)
=1 if indian	0.06	(0.09)	0.05	(0.08)	-0.03	(0.03)	-0.25	(0.16)	-0.01	(0.13)	-0.09	(0.05)
=1 if pakistani or bangladeshi	0.02	(0.07)	0.02	(0.06)	0.01	(0.05)	-0.27**	(0.12)	0.28	(0.20)	0.18	(0.30)
=1 if black	-0.04	(0.07)	-0.04	(0.04)	0.09	(0.11)	-0.02	(0.16)	0.02	(0.07)	0.11	(0.11)
=1 if other	-0.06	(0.06)	-0.09	(0.06)	0.05	(0.12)	-0.41***	(0.10)	-0.15***	(0.04)	-0.10***	(0.03)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	0.24***	(0.06)	0.03	(0.03)	0.01	(0.02)	0.12	(0.09)	-0.01	(0.07)	0.07	(0.05)
<i>Size of household</i>												
log of hh size incl. cm	-0.19***	(0.06)	-0.08*	(0.04)	-0.06**	(0.03)	0.04	(0.12)	0.01	(0.05)	-0.04	(0.05)
<i>Number of older siblings</i>												
no older siblings	-0.03	(0.02)	-0.01	(0.02)	0.01	(0.01)	-0.10	(0.08)	0.01	(0.04)	-0.05	(0.04)
two or more older siblings	0.02	(0.03)	0.02	(0.03)	-0.00	(0.02)	-0.06	(0.11)	-0.02	(0.06)	-0.08**	(0.04)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	0.20***	(0.04)	0.05	(0.04)	-0.03	(0.05)	0.12	(0.13)	-0.04	(0.12)	0.05	(0.06)
<i>Country where interview took place</i>												
=1 if wales	0.13	(0.09)	0.08**	(0.04)	0.06	(0.04)	-0.09	(0.26)	0.03	(0.11)	-0.06	(0.11)
=1 if nireland	-0.02	(0.11)	0.19	(0.11)	-0.01	(0.03)	-0.45***	(0.10)	-0.04	(0.06)	-0.14***	(0.05)
=1 if scotland	0.12	(0.13)	0.08	(0.05)	-0.05	(0.06)	-0.16	(0.25)	-0.17	(0.15)	-0.05	(0.07)
Constant	0.02	(0.26)	0.54***	(0.20)	0.33	(0.22)	0.29	(0.66)	0.63	(0.43)	0.19	(0.44)
Number of cohort members	7717.00		7509.00		7333.00		1250.00		1473.00		1649.00	
Overall F <i>Prob</i> > F	4.02	(0.00)	2.74	(0.00)	1.82	(0.01)	3.56	(0.00)	1.84	(0.00)	.	(.)
Adjusted R ²	0.02		0.00		0.00		-0.01		-0.00		0.01	

Note: Own calculations based on MCS sweeps 2 to 4. Balanced panel containing all households. * p<0.10, ** p<0.05, *** p<0.01

Table A.2.4: Determinants of child health – BG + TAC (# of health problems, cross-section)

	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
Income												
log of permanent family Income (weekly, imp.)	-0.02	(0.01)	-0.06***	(0.02)	-0.07***	(0.02)	-0.06	(0.04)	-0.07*	(0.04)	-0.10**	(0.04)
Standard background controls												
<i>Maternal highest national vocational qualification</i>												
=1 if NVQ level 1	-0.06**	(0.02)	-0.03	(0.03)	-0.04	(0.03)	-0.08	(0.06)	-0.00	(0.07)	-0.05	(0.07)
=1 if NVQ level 2	-0.02	(0.01)	-0.02	(0.02)	-0.00	(0.02)	-0.02	(0.05)	0.01	(0.04)	-0.04	(0.04)
=1 if NVQ level 3	-0.00	(0.01)	-0.02	(0.02)	-0.04**	(0.02)	0.04	(0.05)	0.04	(0.05)	-0.05	(0.05)
=1 if overseas qual. only	0.01	(0.05)	0.05	(0.06)	0.08	(0.07)	-0.20***	(0.08)	-0.03	(0.08)	-0.15*	(0.07)
=1 if none of these	-0.03	(0.02)	-0.05	(0.03)	-0.03	(0.03)	-0.08	(0.05)	0.00	(0.07)	0.01	(0.06)
<i>Mother's age at birth</i>												
less than 20 years	-0.03	(0.03)	-0.04	(0.04)	0.01	(0.04)	0.02	(0.08)	-0.06	(0.08)	-0.11	(0.07)
20 to 24 years	0.01	(0.02)	0.01	(0.02)	-0.02	(0.03)	-0.02	(0.06)	0.05	(0.07)	-0.03	(0.06)
25 to 29 years	0.02	(0.02)	0.02	(0.02)	-0.01	(0.02)	0.06	(0.06)	0.01	(0.05)	-0.03	(0.05)
30 to 34 years	0.00	(0.01)	0.00	(0.02)	-0.01	(0.02)	-0.01	(0.06)	0.05	(0.06)	-0.03	(0.05)
<i>Child demography</i>												
=1 if female	-0.03**	(0.01)	-0.08***	(0.01)	-0.07***	(0.01)	-0.10***	(0.03)	-0.07**	(0.03)	-0.05	(0.03)
age (days)	0.00	(0.00)	0.00***	(0.00)	0.00*	(0.00)	-0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
<i>Child's ethnicity</i>												
=1 if mixed	0.02	(0.04)	0.03	(0.05)	0.02	(0.05)	0.00	(0.07)	-0.09	(0.09)	-0.02	(0.07)
=1 if indian	-0.04	(0.04)	-0.05	(0.05)	0.01	(0.05)	-0.09	(0.16)	0.04	(0.18)	-0.16	(0.13)
=1 if pakistani or bangladeshi	0.03	(0.04)	-0.02	(0.04)	-0.02	(0.03)	0.19	(0.18)	-0.02	(0.08)	0.01	(0.17)
=1 if black	0.02	(0.07)	-0.07	(0.06)	-0.00	(0.06)	0.06	(0.13)	-0.04	(0.09)	0.08	(0.11)
=1 if other	-0.03	(0.06)	-0.04	(0.10)	-0.02	(0.07)	-0.14	(0.20)	-0.26***	(0.06)	-0.23***	(0.05)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	0.10***	(0.03)	0.09***	(0.03)	0.14***	(0.04)	-0.01	(0.05)	0.11	(0.07)	0.15**	(0.06)
<i>Size of household</i>												
log of hh size incl. cm	-0.05*	(0.03)	-0.06	(0.04)	-0.07*	(0.04)	0.03	(0.05)	-0.05	(0.06)	0.04	(0.06)
<i>Number of older siblings</i>												
no older siblings	-0.04***	(0.01)	-0.01	(0.02)	-0.02	(0.02)	-0.14***	(0.04)	-0.01	(0.05)	0.01	(0.04)
two or more older siblings	-0.02	(0.02)	-0.02	(0.02)	-0.03*	(0.02)	-0.08	(0.05)	0.03	(0.06)	-0.02	(0.05)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	-0.01	(0.06)	0.10**	(0.04)	0.07	(0.05)	-0.13	(0.15)	0.02	(0.12)	0.05	(0.07)
<i>Country where interview took place</i>												
=1 if wales	0.15**	(0.07)	0.12**	(0.06)	0.07	(0.04)	0.23	(0.15)	-0.04	(0.16)	-0.03	(0.13)
=1 if nireland	0.21	(0.25)	-0.11	(0.12)	-0.03	(0.07)	-0.23**	(0.11)	-0.08	(0.22)	-0.38***	(0.10)
=1 if scotland	-0.14*	(0.08)	-0.24***	(0.09)	-0.02	(0.08)	-0.42***	(0.09)	-0.58**	(0.25)	0.35	(0.23)
Time and care												
<i>Time mother spends with child</i>												
=1 if plenty	-0.01	(0.01)	-0.01	(0.02)	-0.02	(0.02)	-0.02	(0.06)	-0.06	(0.05)	-0.01	(0.04)
=1 if just enough	-0.01	(0.02)	-0.04**	(0.01)	-0.04***	(0.02)	-0.01	(0.06)	-0.13***	(0.04)	-0.04	(0.03)
<i>Childcare</i>												
=1 if formal childcare	-0.01	(0.01)	-0.01	(0.03)	-0.01	(0.03)	0.04	(0.04)	0.02	(0.08)	0.01	(0.08)

continued on next page

Table A.2.4 – continued from previous page

	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
=1 if informal/ other childcare	-0.02	(0.02)	-0.00	(0.02)	0.01	(0.02)	-0.09*	(0.05)	0.07	(0.07)	-0.02	(0.05)
=1 if grandparent care	-0.01	(0.01)	-0.02	(0.01)	-0.01	(0.02)	-0.01	(0.04)	0.01	(0.04)	0.07*	(0.04)
<i>Maternal employment (t - 1)</i>												
L.=1 if part-time	-0.02**	(0.01)	-0.02	(0.02)	-0.04**	(0.02)	0.02	(0.04)	-0.08*	(0.04)	-0.07*	(0.03)
L.=1 if full-time	-0.03	(0.02)	-0.00	(0.03)	-0.03	(0.03)	-0.03	(0.08)	-0.12	(0.09)	-0.05	(0.07)
<i>How long mother breastfed child</i>												
=1 if for less than 7 days	-0.01	(0.02)	-0.02	(0.02)	-0.02	(0.02)	0.00	(0.05)	-0.06	(0.05)	0.02	(0.05)
=1 if for at least 1 week to 3 months	-0.01	(0.01)	-0.02	(0.02)	0.00	(0.02)	-0.01	(0.04)	0.04	(0.05)	0.05	(0.04)
=1 if for 4 to 6 months	-0.02	(0.02)	-0.02	(0.02)	-0.02	(0.02)	-0.02	(0.06)	0.01	(0.06)	0.04	(0.06)
=1 if for more than 6 months	-0.01	(0.02)	-0.00	(0.02)	0.01	(0.02)	-0.11**	(0.05)	-0.02	(0.06)	-0.05	(0.04)
<i>If child is naughty. . .</i>												
=1 if mother smacks child	-0.04***	(0.02)	-0.05	(0.05)	-0.01	(0.06)	-0.04	(0.04)	0.22	(0.18)	-0.03	(0.11)
=1 if mother tells child off	0.03**	(0.01)	0.02	(0.01)	0.01	(0.01)	-0.02	(0.04)	0.04	(0.03)	0.08***	(0.03)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	-0.00	(0.01)	-0.06**	(0.03)	0.02	(0.02)	0.02	(0.03)	0.02	(0.05)	0.06	(0.04)
<i>Daily TV/ video consumption</i>												
=1 if no tv/ videos	0.05	(0.05)	-0.03	(0.04)	-0.03	(0.04)	0.39	(0.27)	0.00	(0.15)	0.16	(0.14)
=1 if up to 1 hour tv/ videos	0.01	(0.01)	0.01	(0.02)	-0.00	(0.02)	-0.06*	(0.04)	0.02	(0.04)	0.02	(0.04)
=1 if more than 3 hours tv/ videos	0.02	(0.02)	0.03	(0.02)	0.01	(0.02)	-0.01	(0.04)	0.10*	(0.05)	0.02	(0.04)
<i>How often mother reads to the child</i>												
=1 if several times a week	0.01	(0.01)	-0.02	(0.01)	-0.04***	(0.01)	-0.03	(0.03)	-0.03	(0.03)	-0.03	(0.03)
=1 if occasionally	-0.03	(0.02)	-0.02	(0.04)	-0.08***	(0.02)	-0.00	(0.07)	-0.11*	(0.06)	-0.00	(0.05)
=1 if never	0.07	(0.06)	0.03	(0.11)	0.04	(0.06)	-0.09	(0.07)	-0.04	(0.12)	-0.02	(0.09)
Constant	0.37**	(0.15)	0.37*	(0.20)	0.39	(0.26)	1.10***	(0.40)	0.63	(0.43)	0.18	(0.47)
Number of cohort members	7717.00		7509.00		7333.00		1250.00		1473.00		1649.00	
Overall F <i>Prob > F</i>	2.68	(0.00)	3.26	(0.00)	3.43	(0.00)	2.08	(0.00)	2.49	(0.00)	.	(.)
Adjusted R^2	0.01		0.01		0.01		0.02		0.01		0.01	

Note: Own calculations based on MCS sweeps 1 to 4. Balanced panel containing all households. * p<0.10, ** p<0.05, *** p<0.01

Table A.2.5: Determinants of child health – BG + TAC (# of hospital admissions, cross-section)

	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
Income												
log of permanent family Income (weekly, imp.)	-0.02	(0.02)	-0.01	(0.02)	0.00	(0.01)	0.08	(0.08)	-0.02	(0.05)	-0.06	(0.04)
Standard background controls												
<i>Maternal highest national vocational qualification</i>												
=1 if NVQ level 1	-0.06*	(0.04)	0.03	(0.04)	-0.02	(0.02)	-0.13	(0.12)	-0.07	(0.08)	0.01	(0.05)
=1 if NVQ level 2	0.01	(0.02)	0.01	(0.02)	0.04**	(0.02)	-0.05	(0.10)	-0.05	(0.05)	0.07**	(0.03)
=1 if NVQ level 3	-0.01	(0.02)	-0.02	(0.02)	0.01	(0.02)	-0.02	(0.12)	-0.02	(0.06)	0.07**	(0.04)
=1 if overseas qual. only	-0.06	(0.04)	0.14**	(0.06)	-0.01	(0.04)	-0.33**	(0.13)	-0.12	(0.09)	-0.09	(0.06)
=1 if none of these	0.03	(0.05)	-0.02	(0.03)	0.05	(0.05)	-0.25**	(0.11)	0.05	(0.08)	0.03	(0.06)
<i>Mother's age at birth</i>												
less than 20 years	0.14**	(0.06)	0.01	(0.04)	-0.01	(0.04)	0.04	(0.12)	-0.12	(0.09)	-0.03	(0.08)
20 to 24 years	0.13***	(0.04)	0.00	(0.03)	0.00	(0.02)	-0.03	(0.11)	-0.06	(0.08)	-0.01	(0.06)
25 to 29 years	0.04*	(0.02)	0.03	(0.02)	0.01	(0.02)	0.04	(0.10)	-0.11	(0.07)	-0.00	(0.04)
30 to 34 years	0.02	(0.02)	0.02	(0.02)	0.00	(0.02)	0.01	(0.11)	-0.10	(0.07)	-0.04	(0.03)
<i>Child demography</i>												
=1 if female	-0.07***	(0.02)	-0.06***	(0.01)	-0.04***	(0.01)	-0.08	(0.06)	-0.05	(0.03)	-0.03	(0.03)
age (days)	0.00*	(0.00)	-0.00	(0.00)	-0.00	(0.00)	0.00	(0.00)	-0.00	(0.00)	0.00	(0.00)
<i>Child's ethnicity</i>												
=1 if mixed	0.01	(0.06)	-0.03	(0.04)	-0.06***	(0.02)	-0.17*	(0.09)	-0.03	(0.06)	-0.08**	(0.04)
=1 if indian	0.07	(0.09)	0.06	(0.08)	-0.03	(0.03)	-0.21	(0.17)	0.02	(0.13)	-0.06	(0.06)
=1 if pakistani or bangladeshi	0.03	(0.07)	0.02	(0.06)	0.01	(0.05)	-0.30***	(0.10)	0.27	(0.20)	0.16	(0.29)
=1 if black	-0.01	(0.07)	-0.03	(0.04)	0.10	(0.11)	0.03	(0.15)	0.05	(0.07)	0.11	(0.10)
=1 if other	-0.04	(0.06)	-0.10	(0.06)	0.04	(0.12)	-0.39***	(0.11)	-0.16***	(0.05)	-0.10***	(0.04)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	0.23***	(0.06)	0.03	(0.03)	0.01	(0.02)	0.10	(0.10)	-0.01	(0.08)	0.07	(0.05)
<i>Size of household</i>												
log of hh size incl. cm	-0.17***	(0.06)	-0.07	(0.04)	-0.07**	(0.03)	0.02	(0.12)	0.00	(0.06)	-0.04	(0.05)
<i>Number of older siblings</i>												
no older siblings	-0.03	(0.02)	-0.02	(0.02)	0.01	(0.02)	-0.12	(0.08)	0.01	(0.05)	-0.04	(0.04)
two or more older siblings	0.01	(0.03)	0.02	(0.03)	-0.01	(0.02)	-0.09	(0.12)	-0.01	(0.06)	-0.08**	(0.04)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	0.19***	(0.04)	0.05	(0.04)	-0.04	(0.05)	0.09	(0.14)	-0.02	(0.12)	0.04	(0.06)
<i>Country where interview took place</i>												
=1 if wales	0.14	(0.10)	0.08*	(0.04)	0.06	(0.04)	-0.05	(0.24)	0.06	(0.12)	-0.07	(0.11)
=1 if nireland	-0.03	(0.11)	0.19*	(0.11)	-0.01	(0.03)	-0.59***	(0.15)	-0.04	(0.10)	-0.13**	(0.06)
=1 if scotland	0.12	(0.13)	0.08	(0.05)	-0.04	(0.06)	-0.17	(0.24)	-0.18	(0.16)	-0.05	(0.08)
<i>Time and care</i>												
<i>Time mother spends with child</i>												
=1 if plenty	-0.04	(0.03)	0.01	(0.02)	0.01	(0.02)	0.05	(0.08)	0.01	(0.06)	0.02	(0.04)
=1 if just enough	-0.02	(0.03)	0.03*	(0.01)	-0.01	(0.01)	0.03	(0.10)	-0.04	(0.04)	0.02	(0.03)
<i>Childcare</i>												
=1 if formal childcare	0.02	(0.02)	-0.08***	(0.02)	-0.05***	(0.01)	-0.03	(0.06)	0.07	(0.09)	0.03	(0.05)

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Table A.2.5 – continued from previous page

	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
=1 if informal/ other childcare	0.01	(0.04)	-0.01	(0.02)	0.06**	(0.03)	-0.05	(0.13)	0.04	(0.06)	-0.03	(0.03)
=1 if grandparent care	-0.04*	(0.02)	-0.02	(0.02)	0.00	(0.01)	0.09	(0.10)	0.13**	(0.06)	-0.05*	(0.03)
<i>Maternal employment (t - 1)</i>												
L.=1 if part-time	-0.02	(0.02)	0.00	(0.02)	-0.01	(0.01)	-0.18**	(0.08)	-0.06	(0.05)	0.02	(0.03)
L.=1 if full-time	-0.01	(0.04)	0.01	(0.03)	0.01	(0.04)	-0.14	(0.17)	-0.06	(0.08)	0.02	(0.05)
<i>How long mother breastfed child</i>												
=1 if for less than 7 days	-0.01	(0.03)	-0.01	(0.03)	-0.03*	(0.02)	0.01	(0.08)	-0.03	(0.05)	0.03	(0.04)
=1 if for at least 1 week to 3 months	-0.04	(0.03)	0.01	(0.02)	-0.01	(0.02)	0.05	(0.09)	-0.01	(0.04)	-0.00	(0.03)
=1 if for 4 to 6 months	-0.10***	(0.02)	-0.03*	(0.02)	-0.03*	(0.02)	-0.01	(0.10)	-0.01	(0.05)	-0.02	(0.03)
=1 if for more than 6 months	-0.08***	(0.03)	-0.03	(0.02)	-0.01	(0.02)	-0.12	(0.09)	-0.05	(0.07)	0.01	(0.03)
<i>If child is naughty. . .</i>												
=1 if mother smacks child	-0.01	(0.03)	0.06	(0.06)	0.01	(0.06)	0.12	(0.11)	0.08	(0.16)	-0.08	(0.08)
=1 if mother tells child off	0.02	(0.02)	-0.01	(0.01)	-0.01	(0.01)	-0.04	(0.07)	0.04	(0.03)	0.04	(0.03)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	-0.01	(0.03)	-0.05	(0.03)	-0.04	(0.04)	-0.12*	(0.07)	0.01	(0.05)	-0.05	(0.06)
<i>Daily TV/ video consumption</i>												
=1 if no tv/ videos	0.07	(0.09)	0.03	(0.04)	-0.06**	(0.03)	0.41	(0.31)	-0.02	(0.11)	0.15	(0.16)
=1 if up to 1 hour tv/ videos	0.00	(0.02)	0.02	(0.02)	-0.03***	(0.01)	-0.01	(0.07)	0.02	(0.06)	0.02	(0.03)
=1 if more than 3 hours tv/ videos	-0.03	(0.03)	0.01	(0.02)	0.00	(0.02)	-0.01	(0.07)	-0.04	(0.05)	0.01	(0.04)
<i>How often mother reads to the child</i>												
=1 if several times a week	-0.03	(0.02)	-0.04***	(0.02)	-0.01	(0.01)	-0.08	(0.06)	0.04	(0.04)	0.02	(0.03)
=1 if occasionally	-0.05	(0.05)	-0.00	(0.04)	-0.03	(0.02)	-0.19	(0.12)	-0.06	(0.05)	0.01	(0.04)
=1 if never	0.14	(0.09)	0.01	(0.09)	-0.09***	(0.03)	-0.05	(0.13)	-0.01	(0.11)	0.08	(0.09)
Constant	0.12	(0.26)	0.55***	(0.20)	0.38*	(0.22)	-0.02	(0.70)	0.68	(0.44)	0.22	(0.44)
Number of cohort members	7717.00		7509.00		7333.00		1250.00		1473.00		1649.00	
Overall F <i>Prob > F</i>	3.55	(0.00)	2.59	(0.00)	2.72	(0.00)	2.93	(0.00)	1.27	(0.11)	.	(.)
Adjusted <i>R</i> ²	0.02		0.01		0.01		-0.01		-0.00		0.00	

Note: Own calculations based on MCS sweeps 1 to 4. Balanced panel containing all households. * p<0.10, ** p<0.05, *** p<0.01

Table A.2.6: Determinants of child health – BG + HHRB (# of health problems, cross-section)

	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
Income												
log of permanent family Income (weekly, imp.)	-0.01	(0.01)	-0.04**	(0.02)	-0.04**	(0.02)	-0.05	(0.04)	-0.06	(0.04)	-0.09**	(0.04)
Standard background controls												
<i>Maternal highest national vocational qualification</i>												
=1 if NVQ level 1	-0.05**	(0.02)	-0.03	(0.03)	-0.04	(0.03)	-0.09	(0.06)	-0.04	(0.07)	-0.07	(0.07)
=1 if NVQ level 2	-0.01	(0.01)	-0.02	(0.02)	-0.01	(0.02)	-0.02	(0.05)	0.00	(0.04)	-0.05	(0.04)
=1 if NVQ level 3	-0.00	(0.01)	-0.02	(0.02)	-0.03**	(0.02)	0.02	(0.05)	0.01	(0.05)	-0.06	(0.05)
=1 if overseas qual. only	0.01	(0.05)	0.05	(0.06)	0.07	(0.07)	-0.22***	(0.08)	-0.08	(0.07)	-0.16**	(0.07)
=1 if none of these	-0.03	(0.02)	-0.04	(0.03)	-0.03	(0.03)	-0.08	(0.05)	-0.03	(0.07)	-0.01	(0.06)
<i>Mother's age at birth</i>												
less than 20 years	-0.03	(0.03)	-0.03	(0.04)	0.02	(0.04)	0.04	(0.08)	-0.01	(0.08)	-0.07	(0.07)
20 to 24 years	0.01	(0.02)	0.00	(0.02)	-0.02	(0.03)	-0.00	(0.06)	0.09	(0.07)	0.02	(0.06)
25 to 29 years	0.01	(0.02)	0.01	(0.02)	-0.01	(0.02)	0.07	(0.07)	0.04	(0.05)	0.01	(0.05)
30 to 34 years	0.00	(0.01)	-0.00	(0.02)	-0.01	(0.02)	0.01	(0.06)	0.06	(0.05)	-0.01	(0.05)
<i>Child demography</i>												
=1 if female	-0.03**	(0.01)	-0.08***	(0.01)	-0.07***	(0.01)	-0.09***	(0.03)	-0.07**	(0.03)	-0.05*	(0.03)
age (days)	0.00	(0.00)	0.00***	(0.00)	0.00*	(0.00)	-0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
<i>Child's ethnicity</i>												
=1 if mixed	0.02	(0.04)	0.03	(0.05)	0.02	(0.05)	-0.00	(0.06)	-0.10	(0.08)	-0.04	(0.06)
=1 if indian	-0.03	(0.03)	-0.04	(0.05)	-0.01	(0.05)	-0.08	(0.16)	-0.07	(0.14)	-0.12	(0.13)
=1 if pakistani or bangladeshi	0.05	(0.04)	0.01	(0.04)	-0.00	(0.03)	0.23	(0.21)	-0.06	(0.07)	0.03	(0.17)
=1 if black	0.03	(0.07)	-0.07	(0.05)	-0.02	(0.06)	0.05	(0.14)	-0.05	(0.08)	0.06	(0.11)
=1 if other	-0.02	(0.06)	-0.03	(0.10)	-0.02	(0.07)	-0.16	(0.19)	-0.29***	(0.07)	-0.23***	(0.05)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	0.10***	(0.03)	0.08**	(0.03)	0.14***	(0.04)	-0.02	(0.05)	0.12*	(0.07)	0.14**	(0.06)
<i>Size of household</i>												
log of hh size incl. cm	-0.04	(0.03)	-0.04	(0.04)	-0.04	(0.04)	0.03	(0.05)	-0.06	(0.06)	0.03	(0.06)
<i>Number of older siblings</i>												
no older siblings	-0.03***	(0.01)	-0.01	(0.02)	-0.01	(0.02)	-0.13***	(0.04)	-0.01	(0.04)	0.02	(0.04)
two or more older siblings	-0.02	(0.02)	-0.03	(0.02)	-0.04**	(0.02)	-0.09*	(0.05)	0.02	(0.06)	-0.02	(0.05)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	0.02	(0.06)	0.11***	(0.04)	0.08*	(0.05)	-0.09	(0.14)	0.12	(0.12)	0.06	(0.07)
<i>Country where interview took place</i>												
=1 if wales	0.15**	(0.07)	0.12**	(0.05)	0.07	(0.04)	0.17	(0.11)	-0.01	(0.17)	-0.06	(0.13)
=1 if nireland	0.19	(0.25)	-0.11	(0.12)	-0.05	(0.07)	-0.19***	(0.07)	-0.09	(0.16)	-0.38***	(0.07)
=1 if scotland	-0.15*	(0.08)	-0.25***	(0.09)	-0.03	(0.08)	-0.30***	(0.11)	-0.56**	(0.24)	0.30	(0.20)
<i>Health and health-related behaviour</i>												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.10***	(0.01)	0.17***	(0.02)	0.15***	(0.02)	0.16***	(0.04)	0.23***	(0.04)	0.13***	(0.04)
<i>Maternal mental health (dichotomised)</i>												
=1 if high distress	0.10**	(0.05)	0.02	(0.05)	0.11**	(0.06)	-0.10**	(0.05)	0.18**	(0.08)	0.06	(0.07)
<i>Does mother currently smoke</i>												

continued on next page

Table A.2.6 – continued from previous page

	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
=1 if currently smokes	0.03***	(0.01)	0.03*	(0.02)	0.01	(0.02)	-0.00	(0.03)	-0.01	(0.04)	0.03	(0.03)
<i>How often mother drinks alcohol</i>												
=1 if 1-2 times per month	0.00	(0.02)	-0.01	(0.02)	-0.01	(0.02)	0.00	(0.04)	-0.10**	(0.05)	-0.03	(0.04)
=1 if 1-2 times per week	0.00	(0.01)	-0.02	(0.02)	-0.05***	(0.02)	-0.07**	(0.03)	-0.03	(0.05)	-0.02	(0.04)
=1 if at least 3 times a week	-0.02	(0.02)	-0.04**	(0.02)	-0.02	(0.02)	-0.00	(0.05)	-0.17***	(0.05)	-0.03	(0.05)
Constant	0.21	(0.15)	0.07	(0.20)	0.17	(0.26)	0.91***	(0.34)	0.49	(0.43)	0.16	(0.47)
Number of cohort members	7717.00		7509.00		7333.00		1250.00		1473.00		1649.00	
Overall F <i>Prob</i> > <i>F</i>	4.05	(0.00)	6.38	(0.00)	5.89	(0.00)	3.57	(0.00)	2.88	(0.00)	.	(.)
Adjusted <i>R</i> ²	0.02		0.03		0.03		0.04		0.05		0.02	

Note: Own calculations based on MCS sweeps 1 to 4. Balanced panel containing all households. * p<0.10, ** p<0.05, *** p<0.01

Table A.2.7: Determinants of child health – BG + HHRB (# of hospital admissions, cross-section)

	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
Income												
log of permanent family Income (weekly, imp.)	0.01	(0.03)	-0.00	(0.02)	0.01	(0.02)	0.02	(0.07)	-0.03	(0.04)	-0.06	(0.05)
Standard background controls												
<i>Maternal highest national vocational qualification</i>												
=1 if NVQ level 1	-0.06	(0.04)	0.03	(0.03)	-0.01	(0.02)	-0.10	(0.12)	-0.06	(0.08)	0.00	(0.04)
=1 if NVQ level 2	0.01	(0.02)	0.01	(0.02)	0.04***	(0.02)	-0.03	(0.10)	-0.04	(0.05)	0.05*	(0.03)
=1 if NVQ level 3	-0.01	(0.02)	-0.01	(0.02)	0.01	(0.02)	-0.03	(0.12)	-0.01	(0.06)	0.06	(0.04)
=1 if overseas qual. only	-0.06	(0.04)	0.15**	(0.06)	-0.01	(0.04)	-0.33***	(0.12)	-0.11	(0.09)	-0.08	(0.05)
=1 if none of these	0.03	(0.05)	-0.01	(0.04)	0.06	(0.05)	-0.20*	(0.11)	0.05	(0.09)	0.02	(0.06)
<i>Mother's age at birth</i>												
less than 20 years	0.14**	(0.06)	0.01	(0.04)	-0.01	(0.03)	0.12	(0.12)	-0.09	(0.08)	-0.04	(0.08)
20 to 24 years	0.13***	(0.04)	0.00	(0.03)	-0.01	(0.02)	0.03	(0.10)	-0.04	(0.07)	-0.02	(0.06)
25 to 29 years	0.03	(0.02)	0.03	(0.02)	0.00	(0.02)	0.08	(0.11)	-0.10	(0.07)	-0.01	(0.04)
30 to 34 years	0.02	(0.02)	0.02	(0.02)	-0.00	(0.02)	0.03	(0.11)	-0.09	(0.07)	-0.05	(0.03)
<i>Child demography</i>												
=1 if female	-0.06***	(0.02)	-0.06***	(0.01)	-0.04***	(0.01)	-0.08	(0.06)	-0.05	(0.03)	-0.03	(0.02)
age (days)	0.00**	(0.00)	-0.00	(0.00)	-0.00	(0.00)	0.00	(0.00)	-0.00	(0.00)	0.00	(0.00)
<i>Child's ethnicity</i>												
=1 if mixed	-0.00	(0.06)	-0.04	(0.04)	-0.07***	(0.02)	-0.17*	(0.09)	-0.02	(0.06)	-0.08**	(0.04)
=1 if indian	0.05	(0.09)	0.05	(0.08)	-0.04	(0.03)	-0.28	(0.18)	0.03	(0.13)	-0.07	(0.06)
=1 if pakistani or bangladeshi	0.04	(0.07)	0.03	(0.06)	0.01	(0.05)	-0.32**	(0.13)	0.30	(0.20)	0.20	(0.30)
=1 if black	-0.04	(0.07)	-0.05	(0.03)	0.08	(0.11)	-0.05	(0.16)	0.03	(0.07)	0.12	(0.11)
=1 if other	-0.06	(0.06)	-0.09	(0.06)	0.04	(0.12)	-0.47***	(0.14)	-0.16***	(0.05)	-0.11***	(0.04)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	0.23***	(0.06)	0.03	(0.03)	0.00	(0.02)	0.12	(0.10)	-0.01	(0.07)	0.07	(0.05)
<i>Size of household</i>												
log of hh size incl. cm	-0.18***	(0.06)	-0.07*	(0.04)	-0.07**	(0.03)	0.03	(0.12)	0.02	(0.06)	-0.04	(0.05)
<i>Number of older siblings</i>												
no older siblings	-0.03	(0.02)	-0.01	(0.02)	0.01	(0.01)	-0.10	(0.08)	0.01	(0.04)	-0.05	(0.04)
two or more older siblings	0.02	(0.03)	0.02	(0.03)	-0.01	(0.02)	-0.07	(0.11)	-0.03	(0.06)	-0.08**	(0.04)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	0.23***	(0.04)	0.05	(0.04)	-0.03	(0.05)	0.11	(0.13)	-0.01	(0.11)	0.05	(0.06)
<i>Country where interview took place</i>												
=1 if wales	0.14	(0.09)	0.08**	(0.04)	0.06*	(0.04)	-0.06	(0.27)	0.02	(0.11)	-0.07	(0.11)
=1 if nireland	-0.04	(0.12)	0.18	(0.12)	-0.02	(0.03)	-0.46***	(0.10)	-0.05	(0.08)	-0.12**	(0.05)
=1 if scotland	0.11	(0.12)	0.08	(0.05)	-0.05	(0.06)	-0.05	(0.30)	-0.17	(0.14)	-0.04	(0.08)
<i>Health and health-related behaviour</i>												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.11***	(0.02)	0.06***	(0.02)	0.04***	(0.02)	0.09	(0.08)	0.07	(0.05)	0.02	(0.03)
<i>Maternal mental health (dichotomised)</i>												
=1 if high distress	0.10	(0.06)	-0.05	(0.04)	0.05	(0.05)	0.03	(0.10)	-0.05	(0.06)	0.08	(0.05)
<i>Does mother currently smoke</i>												

continued on next page

Table A.2.7 – continued from previous page

	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
=1 if currently smokes	0.04	(0.03)	0.03*	(0.02)	0.01	(0.02)	-0.03	(0.07)	-0.02	(0.04)	0.00	(0.03)
<i>How often mother drinks alcohol</i>												
=1 if 1-2 times per month	-0.00	(0.03)	-0.02	(0.02)	-0.02	(0.02)	-0.14*	(0.08)	-0.00	(0.04)	-0.01	(0.03)
=1 if 1-2 times per week	-0.02	(0.02)	-0.03	(0.02)	-0.03**	(0.02)	-0.11	(0.08)	0.09*	(0.05)	0.07**	(0.04)
=1 if at least 3 times a week	-0.06***	(0.02)	-0.03	(0.02)	-0.03	(0.02)	-0.16*	(0.10)	-0.00	(0.05)	0.01	(0.04)
Constant	-0.20	(0.25)	0.44**	(0.20)	0.26	(0.23)	0.23	(0.68)	0.61	(0.42)	0.12	(0.44)
Number of cohort members	7717.00		7509.00		7333.00		1250.00		1473.00		1649.00	
Overall F $Prob > F$	4.44	(0.00)	2.79	(0.00)	2.29	(0.00)	6.65	(0.00)	1.41	(0.06)	.	(.)
Adjusted R^2	0.02		0.01		0.01		-0.01		0.00		0.01	

Note: Own calculations based on MCS sweeps 1 to 4. Balanced panel containing all households. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.2.8: Determinants of child health – BG + OTHI (# of health problems, cross-section)

	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
Income												
log of permanent family Income (weekly, imp.)	-0.01	(0.01)	-0.06***	(0.02)	-0.05**	(0.02)	-0.04	(0.03)	-0.05	(0.05)	-0.09**	(0.04)
Standard background controls												
<i>Maternal highest national vocational qualification</i>												
=1 if NVQ level 1	-0.06***	(0.02)	-0.03	(0.03)	-0.05*	(0.03)	-0.07	(0.06)	-0.03	(0.07)	-0.06	(0.07)
=1 if NVQ level 2	-0.01	(0.01)	-0.02	(0.02)	-0.01	(0.02)	-0.01	(0.05)	-0.01	(0.04)	-0.04	(0.04)
=1 if NVQ level 3	-0.00	(0.01)	-0.02	(0.02)	-0.04**	(0.02)	0.04	(0.05)	0.03	(0.05)	-0.05	(0.05)
=1 if overseas qual. only	0.01	(0.05)	0.05	(0.06)	0.07	(0.07)	-0.21***	(0.07)	-0.06	(0.08)	-0.15**	(0.07)
=1 if none of these	-0.03	(0.02)	-0.05	(0.03)	-0.04	(0.03)	-0.08	(0.05)	-0.03	(0.07)	0.00	(0.06)
<i>Mother's age at birth</i>												
less than 20 years	-0.04	(0.03)	-0.03	(0.04)	-0.02	(0.04)	0.00	(0.08)	-0.06	(0.07)	-0.10	(0.07)
20 to 24 years	0.00	(0.02)	0.00	(0.02)	-0.04	(0.03)	-0.04	(0.07)	0.06	(0.06)	-0.01	(0.06)
25 to 29 years	0.02	(0.02)	0.01	(0.02)	-0.02	(0.02)	0.05	(0.06)	0.02	(0.05)	-0.02	(0.05)
30 to 34 years	0.00	(0.01)	-0.00	(0.02)	-0.01	(0.02)	-0.01	(0.06)	0.06	(0.05)	-0.03	(0.05)
<i>Child demography</i>												
=1 if female	-0.02**	(0.01)	-0.08***	(0.01)	-0.07***	(0.01)	-0.09***	(0.03)	-0.07**	(0.03)	-0.05*	(0.03)
age (days)	0.00	(0.00)	0.00***	(0.00)	0.00*	(0.00)	-0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
<i>Child's ethnicity</i>												
=1 if mixed	0.01	(0.04)	0.03	(0.05)	0.02	(0.05)	0.00	(0.06)	-0.07	(0.09)	-0.03	(0.07)
=1 if indian	-0.04	(0.03)	-0.05	(0.05)	-0.00	(0.05)	-0.12	(0.15)	0.02	(0.17)	-0.12	(0.13)
=1 if pakistani or bangladeshi	0.04	(0.04)	-0.03	(0.04)	-0.00	(0.03)	0.20	(0.21)	0.02	(0.08)	0.02	(0.17)
=1 if black	0.01	(0.07)	-0.06	(0.06)	-0.02	(0.06)	0.04	(0.13)	-0.05	(0.08)	0.05	(0.11)
=1 if other	-0.03	(0.06)	-0.04	(0.09)	-0.02	(0.07)	-0.12	(0.20)	-0.28***	(0.05)	-0.22***	(0.04)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	0.10***	(0.03)	0.09***	(0.03)	0.14***	(0.04)	-0.01	(0.05)	0.12*	(0.07)	0.14**	(0.06)
<i>Size of household</i>												
log of hh size incl. cm	-0.06*	(0.03)	-0.06	(0.04)	-0.05	(0.04)	0.03	(0.05)	-0.06	(0.06)	0.05	(0.06)
<i>Number of older siblings</i>												
no older siblings	-0.04***	(0.01)	-0.01	(0.01)	-0.01	(0.02)	-0.13***	(0.04)	-0.02	(0.04)	0.02	(0.04)
two or more older siblings	-0.01	(0.02)	-0.01	(0.02)	-0.03*	(0.02)	-0.10*	(0.05)	0.02	(0.06)	-0.03	(0.05)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	-0.01	(0.06)	0.09**	(0.04)	0.07	(0.05)	-0.14	(0.15)	0.05	(0.12)	0.05	(0.07)
<i>Country where interview took place</i>												
=1 if wales	0.15**	(0.07)	0.11*	(0.06)	0.06	(0.05)	0.17	(0.13)	-0.07	(0.15)	-0.08	(0.13)
=1 if nireland	0.20	(0.25)	-0.10	(0.13)	-0.02	(0.06)	-0.21**	(0.09)	-0.01	(0.21)	-0.25***	(0.06)
=1 if scotland	-0.14*	(0.07)	-0.25***	(0.09)	-0.04	(0.08)	-0.41***	(0.11)	-0.58**	(0.25)	0.30	(0.22)
Other												
<i>Housing tenure</i>												
=1 if council rented	0.06***	(0.02)	-0.04	(0.03)	0.03	(0.03)	0.03	(0.05)	0.10*	(0.05)	0.03	(0.04)
=1 if rented (housing association or private)/ other	0.01	(0.02)	0.01	(0.02)	0.04*	(0.02)	0.05	(0.05)	0.06	(0.04)	0.02	(0.04)
<i>Problems with damp on the wall</i>												
=1 if at least some problems	0.05	(0.03)	0.11***	(0.03)	0.10***	(0.03)	-0.01	(0.06)	0.05	(0.06)	-0.01	(0.05)

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Table A.2.8 – continued from previous page

	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	-0.01	(0.04)	-0.04	(0.03)	-0.03	(0.03)	0.04	(0.05)	-0.07	(0.07)	-0.03	(0.06)
<i>Maternal grandfathers' SES when respondent was aged 14</i>												
=1 if was not working	0.01	(0.02)	0.05*	(0.03)	0.02	(0.03)	0.04	(0.05)	0.08	(0.05)	0.02	(0.05)
=1 if managerial/ professional occupation	-0.01	(0.02)	-0.02	(0.02)	-0.04**	(0.02)	0.06	(0.05)	-0.02	(0.05)	0.04	(0.05)
=1 if technical, semi-routine or routine occupation	0.01	(0.01)	0.01	(0.02)	-0.01	(0.02)	0.02	(0.04)	0.04	(0.04)	0.08**	(0.04)
=1 if can't remember or father died	0.01	(0.03)	-0.00	(0.03)	0.01	(0.03)	0.03	(0.05)	0.08	(0.06)	0.04	(0.05)
Constant	0.30*	(0.15)	0.31	(0.21)	0.23	(0.27)	0.90***	(0.34)	0.41	(0.45)	0.24	(0.49)
Number of cohort members	7717.00		7509.00		7333.00		1250.00		1473.00		1649.00	
Overall F <i>Prob > F</i>	2.46	(0.00)	4.19	(0.00)	3.18	(0.00)	2.54	(0.00)	3.71	(0.00)	.	(.)
Adjusted R^2	0.01		0.01		0.01		0.01		0.00		0.01	

Note: Own calculations based on MCS sweeps 1 to 4. Balanced panel containing all households. * p<0.10, ** p<0.05, *** p<0.01

Table A.2.9: Determinants of child health – BG + OTHI (# of hospital admissions, cross-section)

	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
Income												
log of permanent family Income (weekly, imp.)	-0.01	(0.03)	-0.02	(0.02)	0.00	(0.02)	0.03	(0.07)	-0.00	(0.04)	-0.06	(0.05)
Standard background controls												
<i>Maternal highest national vocational qualification</i>												
=1 if NVQ level 1	-0.05	(0.03)	0.03	(0.03)	-0.01	(0.02)	-0.11	(0.13)	-0.08	(0.08)	0.02	(0.04)
=1 if NVQ level 2	0.01	(0.02)	0.02	(0.02)	0.04***	(0.02)	-0.05	(0.10)	-0.05	(0.05)	0.06*	(0.03)
=1 if NVQ level 3	-0.00	(0.02)	-0.01	(0.02)	0.01	(0.02)	-0.03	(0.12)	-0.01	(0.06)	0.06*	(0.04)
=1 if overseas qual. only	-0.06	(0.04)	0.15**	(0.06)	-0.01	(0.04)	-0.34***	(0.13)	-0.12	(0.09)	-0.06	(0.05)
=1 if none of these	0.05	(0.05)	-0.00	(0.04)	0.05	(0.05)	-0.23**	(0.11)	0.04	(0.08)	0.03	(0.06)
<i>Mother's age at birth</i>												
less than 20 years	0.15**	(0.06)	0.02	(0.04)	-0.02	(0.03)	0.06	(0.11)	-0.10	(0.08)	-0.03	(0.08)
20 to 24 years	0.14***	(0.04)	0.01	(0.03)	-0.01	(0.02)	-0.01	(0.10)	-0.05	(0.07)	-0.02	(0.05)
25 to 29 years	0.04*	(0.02)	0.03	(0.02)	0.00	(0.02)	0.05	(0.10)	-0.10	(0.07)	-0.01	(0.04)
30 to 34 years	0.02	(0.02)	0.02	(0.02)	-0.00	(0.02)	0.01	(0.11)	-0.10	(0.07)	-0.05	(0.03)
<i>Child demography</i>												
=1 if female	-0.06***	(0.02)	-0.06***	(0.01)	-0.04***	(0.01)	-0.08	(0.06)	-0.05	(0.03)	-0.02	(0.03)
age (days)	0.00**	(0.00)	-0.00	(0.00)	-0.00	(0.00)	0.00	(0.00)	-0.00	(0.00)	0.00	(0.00)
<i>Child's ethnicity</i>												
=1 if mixed	-0.00	(0.06)	-0.03	(0.04)	-0.06***	(0.02)	-0.17*	(0.09)	-0.02	(0.06)	-0.09**	(0.04)
=1 if indian	0.05	(0.09)	0.04	(0.08)	-0.03	(0.03)	-0.25	(0.16)	-0.00	(0.13)	-0.08	(0.06)
=1 if pakistani or bangladeshi	0.02	(0.07)	0.01	(0.06)	0.02	(0.05)	-0.26**	(0.11)	0.29	(0.20)	0.18	(0.30)
=1 if black	-0.04	(0.07)	-0.04	(0.04)	0.09	(0.11)	-0.03	(0.16)	0.01	(0.07)	0.11	(0.10)
=1 if other	-0.07	(0.06)	-0.09	(0.06)	0.05	(0.12)	-0.44***	(0.12)	-0.16***	(0.04)	-0.09**	(0.04)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	0.24***	(0.06)	0.04	(0.03)	0.01	(0.02)	0.11	(0.10)	-0.02	(0.08)	0.07	(0.05)
<i>Size of household</i>												
log of hh size incl. cm	-0.19***	(0.06)	-0.08*	(0.04)	-0.07**	(0.03)	0.04	(0.11)	0.01	(0.06)	-0.04	(0.05)
<i>Number of older siblings</i>												
no older siblings	-0.03	(0.02)	-0.01	(0.02)	0.01	(0.01)	-0.10	(0.08)	0.02	(0.04)	-0.04	(0.04)
two or more older siblings	0.02	(0.03)	0.02	(0.03)	-0.00	(0.02)	-0.07	(0.11)	-0.02	(0.06)	-0.07**	(0.04)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	0.19***	(0.04)	0.04	(0.04)	-0.03	(0.05)	0.08	(0.13)	-0.04	(0.12)	0.04	(0.06)
<i>Country where interview took place</i>												
=1 if wales	0.13	(0.09)	0.07*	(0.04)	0.06*	(0.04)	-0.07	(0.27)	0.02	(0.12)	-0.08	(0.11)
=1 if nireland	-0.04	(0.11)	0.19	(0.11)	-0.00	(0.03)	-0.40***	(0.14)	-0.04	(0.07)	-0.11*	(0.05)
=1 if scotland	0.13	(0.13)	0.07	(0.05)	-0.05	(0.06)	-0.14	(0.27)	-0.20	(0.15)	-0.06	(0.07)
Other												
<i>Housing tenure</i>												
=1 if council rented	0.01	(0.04)	-0.03	(0.04)	0.02	(0.03)	0.13	(0.09)	0.07	(0.06)	0.01	(0.04)
=1 if rented (housing association or private)/ other	-0.02	(0.03)	-0.01	(0.03)	0.03	(0.03)	0.09	(0.08)	0.02	(0.04)	-0.01	(0.03)
<i>Problems with damp on the wall</i>												
=1 if at least some problems	0.11**	(0.05)	0.04	(0.04)	0.00	(0.03)	-0.06	(0.10)	-0.03	(0.05)	-0.04	(0.03)

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Table A.2.9 – continued from previous page

	Two Parent						Lone Parent							
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7			
<i>Child's fruit consumption</i>														
=1 if cm has at least one portion of fruit per day	0.05	(0.05)	-0.02	(0.03)	-0.05	(0.03)	0.07	(0.09)	-0.06	(0.09)	-0.05	(0.06)		
<i>Maternal grandfathers' SES when respondent was aged 14</i>														
=1 if was not working	-0.04	(0.04)	0.03	(0.04)	-0.01	(0.02)	0.04	(0.11)	-0.06	(0.05)	0.02	(0.05)		
=1 if managerial/ professional occupation	-0.05**	(0.02)	-0.01	(0.02)	-0.01	(0.01)	0.01	(0.09)	-0.05	(0.05)	0.10**	(0.04)		
=1 if technical, semi-routine or routine occupation	-0.01	(0.02)	-0.01	(0.02)	0.01	(0.02)	-0.01	(0.07)	0.02	(0.05)	0.03	(0.03)		
=1 if can't remember or father died	-0.01	(0.04)	-0.02	(0.03)	-0.01	(0.03)	0.04	(0.11)	-0.04	(0.06)	0.05	(0.07)		
Constant	-0.07	(0.27)	0.59***	(0.21)	0.32	(0.22)	0.05	(0.65)	0.59	(0.45)	0.26	(0.43)		
Number of cohort members	7717.00		7509.00		7333.00		1250.00		1473.00		1649.00			
Overall F <i>Prob > F</i>	3.49	(0.00)	2.69	(0.00)	1.72	(0.01)	5.80	(0.00)	1.79	(0.00)	.	(.)		
Adjusted <i>R</i> ²	0.02		0.00		0.00		-0.01		-0.00		0.01			

Note: Own calculations based on MCS sweeps 1 to 4. Balanced panel containing all households. * p<0.10, ** p<0.05, *** p<0.01

Table A.2.10: Determinants of child health – BG + TAC + HHRB + OTHI (# of health problems, cross-section)

	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
Income												
log of permanent family Income (weekly, imp.)	0.01	(0.01)	-0.04**	(0.02)	-0.02	(0.02)	-0.06	(0.04)	-0.03	(0.05)	-0.08**	(0.04)
Standard background controls												
<i>Maternal highest national vocational qualification</i>												
=1 if NVQ level 1	-0.06***	(0.02)	-0.03	(0.03)	-0.04	(0.03)	-0.08	(0.06)	-0.04	(0.07)	-0.07	(0.07)
=1 if NVQ level 2	-0.02	(0.01)	-0.02	(0.02)	-0.00	(0.02)	-0.02	(0.05)	0.00	(0.05)	-0.05	(0.04)
=1 if NVQ level 3	-0.00	(0.02)	-0.01	(0.02)	-0.03*	(0.02)	0.01	(0.05)	0.01	(0.05)	-0.06	(0.05)
=1 if overseas qual. only	0.01	(0.05)	0.05	(0.06)	0.07	(0.07)	-0.23***	(0.08)	-0.07	(0.08)	-0.16**	(0.08)
=1 if none of these	-0.04	(0.02)	-0.05*	(0.03)	-0.04	(0.03)	-0.08	(0.05)	-0.03	(0.07)	-0.01	(0.06)
<i>Mother's age at birth</i>												
less than 20 years	-0.04	(0.03)	-0.01	(0.04)	0.02	(0.04)	0.05	(0.08)	-0.04	(0.08)	-0.09	(0.08)
20 to 24 years	-0.00	(0.02)	0.01	(0.02)	-0.02	(0.03)	-0.00	(0.06)	0.06	(0.07)	-0.01	(0.06)
25 to 29 years	0.01	(0.02)	0.02	(0.02)	-0.00	(0.02)	0.08	(0.06)	0.03	(0.05)	-0.02	(0.05)
30 to 34 years	0.00	(0.01)	0.00	(0.02)	-0.00	(0.02)	0.01	(0.06)	0.07	(0.06)	-0.03	(0.05)
<i>Child demography</i>												
=1 if female	-0.03**	(0.01)	-0.08***	(0.01)	-0.07***	(0.01)	-0.10***	(0.03)	-0.07**	(0.03)	-0.05	(0.03)
age (days)	0.00	(0.00)	0.00***	(0.00)	0.00*	(0.00)	-0.00	(0.00)	0.00	(0.00)	0.00	(0.00)
<i>Child's ethnicity</i>												
=1 if mixed	0.02	(0.04)	0.02	(0.05)	0.02	(0.05)	-0.02	(0.07)	-0.11	(0.08)	-0.03	(0.07)
=1 if indian	-0.03	(0.03)	-0.04	(0.05)	0.01	(0.05)	-0.10	(0.15)	-0.03	(0.16)	-0.14	(0.14)
=1 if pakistani or bangladeshi	0.07	(0.04)	-0.00	(0.04)	0.01	(0.04)	0.22	(0.18)	-0.05	(0.07)	0.03	(0.18)
=1 if black	0.03	(0.07)	-0.06	(0.06)	-0.02	(0.06)	0.06	(0.13)	-0.05	(0.08)	0.08	(0.11)
=1 if other	-0.02	(0.06)	-0.04	(0.10)	-0.02	(0.07)	-0.18	(0.18)	-0.34***	(0.08)	-0.23***	(0.06)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	0.10***	(0.03)	0.08**	(0.03)	0.14***	(0.04)	-0.02	(0.05)	0.11*	(0.07)	0.14**	(0.06)
<i>Size of household</i>												
log of hh size incl. cm	-0.05	(0.03)	-0.05	(0.04)	-0.07*	(0.04)	0.02	(0.05)	-0.05	(0.06)	0.02	(0.06)
<i>Number of older siblings</i>												
no older siblings	-0.03**	(0.01)	-0.01	(0.02)	-0.01	(0.02)	-0.13***	(0.04)	0.00	(0.05)	0.01	(0.04)
two or more older siblings	-0.02	(0.02)	-0.03	(0.02)	-0.04**	(0.02)	-0.07	(0.05)	0.01	(0.06)	-0.01	(0.05)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	0.01	(0.06)	0.11***	(0.04)	0.07	(0.05)	-0.12	(0.15)	0.10	(0.12)	0.06	(0.08)
<i>Country where interview took place</i>												
=1 if wales	0.16**	(0.07)	0.12**	(0.05)	0.08*	(0.04)	0.24*	(0.14)	0.01	(0.17)	-0.04	(0.12)
=1 if nireland	0.18	(0.24)	-0.11	(0.12)	-0.06	(0.07)	-0.16*	(0.08)	-0.03	(0.19)	-0.44***	(0.11)
=1 if scotland	-0.14*	(0.08)	-0.25***	(0.09)	-0.01	(0.08)	-0.30***	(0.08)	-0.57**	(0.24)	0.29	(0.22)
Time and care												
<i>Time mother spends with child</i>												
=1 if plenty	-0.01	(0.01)	-0.01	(0.02)	-0.01	(0.02)	-0.02	(0.06)	-0.04	(0.04)	-0.01	(0.04)
=1 if just enough	-0.00	(0.02)	-0.03**	(0.01)	-0.03**	(0.01)	-0.00	(0.06)	-0.11***	(0.04)	-0.03	(0.03)
<i>Childcare</i>												
=1 if formal childcare	-0.01	(0.01)	-0.01	(0.03)	-0.00	(0.03)	0.05	(0.04)	0.04	(0.08)	0.01	(0.08)

continued on next page

Table A.2.10 – continued from previous page

	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
=1 if informal/ other childcare	-0.02	(0.02)	-0.00	(0.02)	0.01	(0.02)	-0.07	(0.05)	0.06	(0.06)	-0.01	(0.05)
=1 if grandparent care	-0.00	(0.01)	-0.02	(0.01)	-0.01	(0.01)	-0.01	(0.04)	0.01	(0.04)	0.07*	(0.04)
<i>Maternal employment (t – 1)</i>												
L.=1 if part-time	-0.02	(0.01)	-0.02	(0.02)	-0.03*	(0.02)	0.03	(0.04)	-0.04	(0.04)	-0.05	(0.03)
L.=1 if full-time	-0.02	(0.02)	0.01	(0.03)	-0.02	(0.03)	-0.01	(0.07)	-0.08	(0.09)	-0.03	(0.07)
<i>How long mother breastfed child</i>												
=1 if for less than 7 days	-0.01	(0.02)	-0.03	(0.02)	-0.02	(0.02)	-0.01	(0.05)	-0.06	(0.05)	0.02	(0.05)
=1 if for at least 1 week to 3 months	-0.01	(0.01)	-0.02	(0.02)	0.01	(0.02)	-0.02	(0.04)	0.03	(0.05)	0.05	(0.04)
=1 if for 4 to 6 months	-0.01	(0.02)	-0.01	(0.02)	-0.01	(0.02)	-0.02	(0.06)	0.03	(0.06)	0.06	(0.06)
=1 if for more than 6 months	-0.00	(0.02)	0.00	(0.02)	0.02	(0.02)	-0.11**	(0.05)	-0.02	(0.06)	-0.04	(0.04)
<i>If child is naughty...</i>												
=1 if mother smacks child	-0.04***	(0.02)	-0.05	(0.04)	-0.02	(0.06)	-0.02	(0.04)	0.19	(0.18)	-0.03	(0.10)
=1 if mother tells child off	0.03**	(0.01)	0.02	(0.01)	0.00	(0.01)	-0.02	(0.04)	0.04	(0.03)	0.08**	(0.03)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	0.00	(0.01)	-0.05**	(0.03)	0.02	(0.02)	0.02	(0.03)	0.03	(0.04)	0.06	(0.04)
<i>Daily TV/ video consumption</i>												
=1 if no tv/ videos	0.04	(0.05)	-0.02	(0.04)	-0.03	(0.04)	0.38	(0.27)	0.02	(0.16)	0.19	(0.14)
=1 if up to 1 hour tv/ videos	0.01	(0.01)	0.01	(0.02)	-0.00	(0.02)	-0.05	(0.04)	0.03	(0.04)	0.02	(0.04)
=1 if more than 3 hours tv/ videos	0.01	(0.02)	0.02	(0.02)	0.01	(0.02)	-0.00	(0.04)	0.09*	(0.05)	0.01	(0.04)
<i>How often mother reads to the child</i>												
=1 if several times a week	0.01	(0.01)	-0.02	(0.01)	-0.04***	(0.01)	-0.01	(0.03)	-0.03	(0.03)	-0.03	(0.03)
=1 if occasionally	-0.03	(0.02)	-0.03	(0.03)	-0.07***	(0.02)	0.01	(0.07)	-0.09	(0.07)	0.00	(0.05)
=1 if never	0.04	(0.06)	-0.01	(0.11)	0.04	(0.06)	-0.08	(0.07)	-0.03	(0.10)	-0.03	(0.08)
Health and health-related behaviour												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.10***	(0.01)	0.16***	(0.02)	0.15***	(0.02)	0.16***	(0.04)	0.23***	(0.04)	0.13***	(0.04)
<i>Maternal mental health (dichotomised)</i>												
=1 if high distress	0.09**	(0.04)	0.01	(0.05)	0.10*	(0.06)	-0.08*	(0.05)	0.16**	(0.08)	0.05	(0.07)
<i>Does mother currently smoke</i>												
=1 if currently smokes	0.03**	(0.01)	0.03	(0.02)	0.01	(0.02)	-0.00	(0.03)	-0.03	(0.04)	0.02	(0.03)
<i>How often mother drinks alcohol</i>												
=1 if 1-2 times per month	0.00	(0.02)	-0.01	(0.02)	-0.00	(0.02)	-0.00	(0.04)	-0.09*	(0.05)	-0.02	(0.04)
=1 if 1-2 times per week	0.00	(0.01)	-0.02	(0.02)	-0.05**	(0.02)	-0.07**	(0.03)	-0.02	(0.05)	-0.02	(0.04)
=1 if at least 3 times a week	-0.02	(0.02)	-0.04*	(0.02)	-0.02	(0.02)	-0.01	(0.05)	-0.16***	(0.05)	-0.02	(0.05)
Other												
<i>Housing tenure</i>												
=1 if council rented	0.05**	(0.02)	-0.06**	(0.03)	0.02	(0.03)	0.02	(0.05)	0.07	(0.05)	0.02	(0.05)
=1 if rented (housing association or private)/ other	-0.00	(0.02)	0.00	(0.02)	0.03	(0.02)	0.04	(0.05)	0.02	(0.04)	0.02	(0.04)
<i>Problems with damp on the wall</i>												
=1 if at least some problems	0.04	(0.03)	0.10***	(0.03)	0.09***	(0.03)	-0.03	(0.06)	0.04	(0.06)	-0.03	(0.05)
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	-0.00	(0.04)	-0.03	(0.03)	-0.02	(0.03)	0.04	(0.06)	-0.04	(0.07)	-0.02	(0.06)
<i>Maternal grandfathers' SES when respondent was aged 14</i>												

continued on next page

Table A.2.10 – continued from previous page

	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
=1 if was not working	0.01	(0.02)	0.04	(0.03)	0.02	(0.03)	0.04	(0.05)	0.05	(0.05)	0.01	(0.05)
=1 if managerial/ professional occupation	-0.01	(0.02)	-0.02	(0.02)	-0.04**	(0.02)	0.03	(0.05)	-0.01	(0.05)	0.03	(0.05)
=1 if technical, semi-routine or routine occupation	0.01	(0.01)	0.01	(0.02)	-0.01	(0.02)	0.01	(0.04)	0.03	(0.04)	0.08**	(0.04)
=1 if can't remember or father died	0.01	(0.03)	-0.01	(0.03)	0.01	(0.03)	0.02	(0.05)	0.04	(0.06)	0.02	(0.05)
Constant	0.13	(0.16)	0.16	(0.21)	0.11	(0.26)	1.00**	(0.39)	0.33	(0.44)	0.05	(0.47)
Number of cohort members	7717.00		7509.00		7333.00		1250.00		1473.00		1649.00	
Overall F <i>Prob > F</i>	3.61	(0.00)	5.19	(0.00)	4.96	(0.00)	3.10	(0.00)	2.45	(0.00)	.	(.)
Adjusted <i>R</i> ²	0.02		0.03		0.03		0.03		0.05		0.02	

Note: Own calculations based on MCS sweeps 1 to 4. Balanced panel containing all households. * p<0.10, ** p<0.05, *** p<0.01

Table A.2.11: Determinants of child health – BG + TAC + HHRB + OTHI (# of hospital admissions, cross-section)

	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
Income												
log of permanent family Income (weekly, imp.)	0.01	(0.03)	-0.01	(0.02)	0.02	(0.02)	0.12	(0.08)	-0.01	(0.05)	-0.07	(0.05)
Standard background controls												
<i>Maternal highest national vocational qualification</i>												
=1 if NVQ level 1	-0.06*	(0.04)	0.02	(0.04)	-0.02	(0.02)	-0.11	(0.13)	-0.08	(0.08)	0.00	(0.05)
=1 if NVQ level 2	0.01	(0.02)	0.01	(0.02)	0.04**	(0.02)	-0.05	(0.10)	-0.05	(0.05)	0.06*	(0.03)
=1 if NVQ level 3	-0.01	(0.03)	-0.02	(0.02)	0.01	(0.02)	-0.03	(0.12)	-0.02	(0.06)	0.06	(0.04)
=1 if overseas qual. only	-0.06	(0.04)	0.14**	(0.06)	-0.01	(0.04)	-0.35***	(0.13)	-0.13	(0.09)	-0.08	(0.06)
=1 if none of these	0.03	(0.05)	-0.02	(0.04)	0.05	(0.05)	-0.25**	(0.11)	0.05	(0.09)	0.01	(0.07)
<i>Mother's age at birth</i>												
less than 20 years	0.13**	(0.06)	0.02	(0.04)	-0.00	(0.03)	0.05	(0.12)	-0.13	(0.09)	-0.02	(0.08)
20 to 24 years	0.12***	(0.04)	0.00	(0.03)	0.00	(0.02)	-0.03	(0.11)	-0.07	(0.07)	-0.01	(0.06)
25 to 29 years	0.03	(0.02)	0.03	(0.02)	0.01	(0.02)	0.05	(0.10)	-0.12	(0.07)	0.01	(0.04)
30 to 34 years	0.02	(0.02)	0.02	(0.02)	0.00	(0.02)	0.01	(0.11)	-0.11	(0.07)	-0.04	(0.03)
<i>Child demography</i>												
=1 if female	-0.06***	(0.02)	-0.06***	(0.01)	-0.04***	(0.01)	-0.08	(0.06)	-0.05	(0.03)	-0.02	(0.03)
age (days)	0.00**	(0.00)	-0.00	(0.00)	-0.00	(0.00)	0.00	(0.00)	-0.00	(0.00)	0.00	(0.00)
<i>Child's ethnicity</i>												
=1 if mixed	0.01	(0.06)	-0.03	(0.04)	-0.07***	(0.02)	-0.18*	(0.10)	-0.02	(0.06)	-0.09**	(0.04)
=1 if indian	0.06	(0.09)	0.06	(0.08)	-0.03	(0.03)	-0.26	(0.19)	0.06	(0.14)	-0.04	(0.07)
=1 if pakistani or bangladeshi	0.05	(0.07)	0.01	(0.06)	0.02	(0.05)	-0.36***	(0.11)	0.29	(0.21)	0.18	(0.30)
=1 if black	-0.01	(0.07)	-0.02	(0.04)	0.09	(0.11)	-0.01	(0.16)	0.05	(0.07)	0.12	(0.10)
=1 if other	-0.05	(0.06)	-0.09	(0.06)	0.03	(0.12)	-0.48***	(0.15)	-0.17***	(0.06)	-0.10**	(0.05)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	0.22***	(0.06)	0.03	(0.03)	0.00	(0.02)	0.10	(0.10)	-0.01	(0.08)	0.07	(0.05)
<i>Size of household</i>												
log of hh size incl. cm	-0.15**	(0.06)	-0.06	(0.05)	-0.07**	(0.03)	0.00	(0.12)	0.03	(0.06)	-0.03	(0.05)
<i>Number of older siblings</i>												
no older siblings	-0.02	(0.02)	-0.02	(0.02)	0.01	(0.02)	-0.11	(0.08)	0.01	(0.04)	-0.04	(0.04)
two or more older siblings	0.00	(0.03)	0.01	(0.03)	-0.01	(0.02)	-0.10	(0.12)	-0.03	(0.06)	-0.07*	(0.04)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	0.21***	(0.04)	0.06	(0.04)	-0.05	(0.05)	0.06	(0.14)	0.00	(0.12)	0.02	(0.06)
<i>Country where interview took place</i>												
=1 if wales	0.15	(0.09)	0.07*	(0.04)	0.07*	(0.04)	0.01	(0.25)	0.05	(0.12)	-0.10	(0.11)
=1 if nireland	-0.07	(0.11)	0.18	(0.11)	-0.01	(0.04)	-0.52***	(0.19)	-0.04	(0.12)	-0.09	(0.07)
=1 if scotland	0.12	(0.13)	0.08	(0.05)	-0.04	(0.06)	-0.04	(0.29)	-0.19	(0.14)	-0.06	(0.08)
Time and care												
<i>Time mother spends with child</i>												
=1 if plenty	-0.04	(0.03)	0.01	(0.02)	0.01	(0.02)	0.05	(0.08)	0.01	(0.06)	0.02	(0.04)
=1 if just enough	-0.02	(0.03)	0.03*	(0.01)	-0.01	(0.01)	0.04	(0.10)	-0.05	(0.04)	0.02	(0.03)
<i>Childcare</i>												
=1 if formal childcare	0.02	(0.02)	-0.08***	(0.02)	-0.05***	(0.01)	-0.02	(0.06)	0.08	(0.09)	0.03	(0.05)

continued on next page

Table A.2.11 – continued from previous page

	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
=1 if informal/ other childcare	0.01	(0.04)	-0.01	(0.02)	0.06**	(0.03)	-0.04	(0.13)	0.07	(0.06)	-0.04	(0.03)
=1 if grandparent care	-0.04	(0.02)	-0.02	(0.02)	0.00	(0.02)	0.11	(0.10)	0.13**	(0.06)	-0.06**	(0.03)
<i>Maternal employment (t – 1)</i>												
L.=1 if part-time	-0.01	(0.02)	0.01	(0.02)	-0.01	(0.01)	-0.16*	(0.09)	-0.06	(0.04)	0.02	(0.03)
L.=1 if full-time	-0.01	(0.04)	0.01	(0.03)	0.01	(0.04)	-0.14	(0.17)	-0.06	(0.07)	0.02	(0.05)
<i>How long mother breastfed child</i>												
=1 if for less than 7 days	-0.01	(0.03)	-0.01	(0.03)	-0.04*	(0.02)	-0.00	(0.08)	-0.03	(0.05)	0.03	(0.04)
=1 if for at least 1 week to 3 months	-0.04	(0.03)	0.02	(0.02)	-0.01	(0.02)	0.04	(0.09)	0.00	(0.05)	-0.00	(0.03)
=1 if for 4 to 6 months	-0.10***	(0.02)	-0.03	(0.02)	-0.03	(0.02)	0.00	(0.11)	0.01	(0.06)	-0.02	(0.04)
=1 if for more than 6 months	-0.08***	(0.03)	-0.03	(0.02)	-0.00	(0.02)	-0.13	(0.09)	-0.05	(0.07)	0.02	(0.03)
<i>If child is naughty...</i>												
=1 if mother smacks child	-0.01	(0.03)	0.06	(0.06)	0.01	(0.06)	0.13	(0.11)	0.05	(0.16)	-0.10	(0.08)
=1 if mother tells child off	0.02	(0.02)	-0.01	(0.01)	-0.01	(0.01)	-0.04	(0.07)	0.04	(0.03)	0.04	(0.03)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	-0.00	(0.03)	-0.05	(0.03)	-0.04	(0.04)	-0.12	(0.07)	0.01	(0.05)	-0.04	(0.06)
<i>Daily TV/ video consumption</i>												
=1 if no tv/ videos	0.06	(0.09)	0.03	(0.05)	-0.06**	(0.03)	0.41	(0.32)	-0.02	(0.11)	0.13	(0.15)
=1 if up to 1 hour tv/ videos	0.01	(0.02)	0.02	(0.02)	-0.03***	(0.01)	-0.01	(0.07)	0.02	(0.06)	0.02	(0.03)
=1 if more than 3 hours tv/ videos	-0.04	(0.03)	0.01	(0.02)	-0.00	(0.02)	-0.02	(0.07)	-0.04	(0.05)	0.01	(0.04)
<i>How often mother reads to the child</i>												
=1 if several times a week	-0.03*	(0.02)	-0.04***	(0.02)	-0.01	(0.01)	-0.07	(0.06)	0.04	(0.03)	0.02	(0.03)
=1 if occasionally	-0.05	(0.05)	-0.01	(0.04)	-0.03	(0.02)	-0.17	(0.12)	-0.07	(0.06)	-0.00	(0.04)
=1 if never	0.12	(0.09)	-0.01	(0.09)	-0.10***	(0.03)	-0.04	(0.13)	0.00	(0.11)	0.08	(0.09)
Health and health-related behaviour												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.11***	(0.02)	0.06***	(0.02)	0.04***	(0.02)	0.08	(0.08)	0.08	(0.05)	0.02	(0.03)
<i>Maternal mental health (dichotomised)</i>												
=1 if high distress	0.09	(0.06)	-0.04	(0.04)	0.05	(0.05)	0.04	(0.10)	-0.05	(0.06)	0.07	(0.06)
<i>Does mother currently smoke</i>												
=1 if currently smokes	0.04	(0.03)	0.03*	(0.02)	0.01	(0.02)	-0.04	(0.07)	-0.03	(0.04)	0.01	(0.03)
<i>How often mother drinks alcohol</i>												
=1 if 1-2 times per month	-0.00	(0.03)	-0.02	(0.02)	-0.02	(0.02)	-0.13	(0.08)	0.01	(0.04)	-0.01	(0.03)
=1 if 1-2 times per week	-0.02	(0.02)	-0.02	(0.02)	-0.03**	(0.02)	-0.11	(0.08)	0.09*	(0.05)	0.07**	(0.04)
=1 if at least 3 times a week	-0.06***	(0.02)	-0.02	(0.02)	-0.02	(0.02)	-0.15	(0.10)	0.02	(0.05)	0.01	(0.04)
Other												
<i>Housing tenure</i>												
=1 if council rented	-0.01	(0.04)	-0.04	(0.04)	0.00	(0.03)	0.10	(0.10)	0.07	(0.06)	0.00	(0.04)
=1 if rented (housing association or private)/ other	-0.03	(0.03)	-0.02	(0.03)	0.03	(0.03)	0.07	(0.09)	0.01	(0.04)	-0.02	(0.03)
<i>Problems with damp on the wall</i>												
=1 if at least some problems	0.10*	(0.05)	0.04	(0.04)	-0.00	(0.03)	-0.08	(0.11)	-0.02	(0.05)	-0.05	(0.04)
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	0.06	(0.05)	-0.01	(0.03)	-0.04	(0.04)	0.08	(0.09)	-0.04	(0.09)	-0.05	(0.06)
<i>Maternal grandfathers' SES when respondent was aged 14</i>												

continued on next page

Table A.2.11 – continued from previous page

	Two parent						Lone parent					
	Age 3		Age 5		Age 7		Age 3		Age 5		Age 7	
=1 if was not working	-0.04	(0.04)	0.03	(0.04)	-0.02	(0.02)	0.03	(0.11)	-0.07	(0.05)	0.03	(0.05)
=1 if managerial/ professional occupation	-0.04*	(0.02)	-0.01	(0.02)	-0.00	(0.01)	0.01	(0.09)	-0.04	(0.05)	0.09**	(0.04)
=1 if technical, semi-routine or routine occupation	-0.02	(0.02)	-0.01	(0.02)	0.00	(0.02)	-0.02	(0.07)	0.01	(0.05)	0.03	(0.03)
=1 if can't remember or father died	-0.02	(0.04)	-0.02	(0.03)	-0.01	(0.03)	0.03	(0.11)	-0.04	(0.06)	0.04	(0.07)
Constant	-0.16	(0.27)	0.51**	(0.21)	0.32	(0.22)	-0.23	(0.69)	0.62	(0.46)	0.25	(0.44)
Number of cohort members	7717.00		7509.00		7333.00		1250.00		1473.00		1649.00	
Overall F <i>Prob > F</i>	3.48	(0.00)	2.72	(0.00)	2.49	(0.00)	2.56	(0.00)	1.06	(0.36)	.	(.)
Adjusted R^2	0.02		0.01		0.01		-0.01		-0.00		0.00	

Note: Own calculations based on MCS sweeps 1 to 4. Balanced panel containing all households. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$

Table A.2.12: Boundaries for lagged health in dynamic models

Household Type Model	# of health problems		# of hospital admissions	
	OLS	FE	OLS	FE
Two parent				
Raw	0.49*** (0.02)	-0.42*** (0.02)	0.21*** (0.02)	-0.31*** (0.02)
BG	0.48*** (0.02)	-0.42*** (0.02)	0.20*** (0.02)	-0.31*** (0.02)
BG + TAC	0.48*** (0.02)	-0.42*** (0.02)	0.20*** (0.02)	-0.31*** (0.02)
BG + HHRB	0.47*** (0.02)	-0.42*** (0.02)	0.20*** (0.02)	-0.31*** (0.02)
BG + OTHI	0.48*** (0.02)	-0.42*** (0.02)	0.20*** (0.02)	-0.31*** (0.02)
BG + TAC + HHRB + OTHI	0.47*** (0.02)	-0.42*** (0.02)	0.20*** (0.02)	-0.31*** (0.02)
BG + TAC + OTHI	0.48*** (0.02)	-0.42*** (0.02)	0.20*** (0.02)	-0.31*** (0.02)
Observations	14842	7796	22559	8152
Lone parent				
Raw	0.51*** (0.03)	-0.35*** (0.04)	0.20*** (0.03)	-0.34*** (0.04)
BG	0.51*** (0.03)	-0.35*** (0.04)	0.20*** (0.04)	-0.33*** (0.04)
BG + TAC	0.51*** (0.03)	-0.36*** (0.04)	0.20*** (0.04)	-0.34*** (0.04)
BG + HHRB	0.50*** (0.03)	-0.35*** (0.04)	0.20*** (0.04)	-0.34*** (0.04)
BG + OTHI	0.51*** (0.03)	-0.35*** (0.04)	0.20*** (0.04)	-0.34*** (0.04)
BG + TAC + HHRB + OTHI	0.49*** (0.03)	-0.35*** (0.04)	0.19*** (0.04)	-0.34*** (0.04)
BG + TAC + OTHI	0.51*** (0.03)	-0.35*** (0.04)	0.20*** (0.04)	-0.34*** (0.04)
Observations	3122	1936	4372	2146

Note: Own calculations based on MCS sweeps 1 to 4. Balanced panel containing all households. Specifications: *Raw*: raw correlation between child health and permanent family income; *BG*: model includes controls for basic maternal, child and household characteristics; *BG + TAC*: *BG* augmented by time and care inputs; *BG + HHRB*: *BG* augmented by maternal health and health related behaviours; *BG + OTHI*: *BG* augmented by variables related to other family inputs; *BG + TAC + HHRB + OTHI*: *BG* augmented by time and care inputs, maternal health and health related behaviours and variables related to other family inputs. Variables are described in detail in section (2.4). * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$.

Table A.2.13: Determinants of child health – BG (panel)

	# of health problems				# of hospital admissions			
	Two parent		Lone parent		Two parent		Lone parent	
Lagged health	0.34***	(0.03)	0.32***	(0.08)	0.15***	(0.03)	0.11***	(0.03)
Income								
log of permanent family Income (weekly, imp.)	-0.05***	(0.01)	-0.07**	(0.03)	-0.01	(0.01)	-0.03	(0.03)
Standard background controls								
<i>Maternal highest national vocational qualification</i>								
=1 if NVQ level 1	-0.02	(0.02)	-0.00	(0.05)	0.01	(0.02)	-0.02	(0.05)
=1 if NVQ level 2	-0.01	(0.01)	-0.00	(0.03)	0.03**	(0.01)	0.03	(0.04)
=1 if NVQ level 3	-0.03**	(0.01)	-0.04	(0.04)	-0.00	(0.01)	0.01	(0.04)
=1 if overseas qual. only	0.04	(0.05)	-0.05	(0.07)	0.05	(0.04)	-0.09*	(0.05)
=1 if none of these	-0.02	(0.02)	0.02	(0.05)	0.04	(0.03)	-0.03	(0.05)
<i>Mother's age at birth</i>								
less than 20 years	-0.00	(0.03)	-0.02	(0.06)	0.03	(0.03)	-0.04	(0.06)
20 to 24 years	-0.01	(0.02)	0.06	(0.05)	0.02	(0.02)	-0.03	(0.04)
25 to 29 years	0.00	(0.02)	0.01	(0.04)	0.02**	(0.01)	-0.03	(0.04)
30 to 34 years	-0.00	(0.01)	0.02	(0.04)	0.01	(0.01)	-0.05	(0.04)
<i>Child demography</i>								
=1 if female	-0.06***	(0.01)	-0.03	(0.02)	-0.05***	(0.01)	-0.04*	(0.02)
age (days)	-0.00	(0.00)	0.00*	(0.00)	0.00	(0.00)	0.00	(0.00)
<i>Child's ethnicity</i>								
=1 if mixed	0.03	(0.04)	-0.02	(0.06)	-0.03	(0.03)	-0.08*	(0.04)
=1 if indian	-0.01	(0.03)	-0.06	(0.12)	0.00	(0.05)	-0.11*	(0.06)
=1 if pakistani or bangladeshi	-0.02	(0.02)	-0.06	(0.10)	0.01	(0.03)	0.13	(0.18)
=1 if black	-0.02	(0.05)	-0.06	(0.09)	0.02	(0.04)	0.05	(0.08)
=1 if other	-0.02	(0.06)	-0.19***	(0.03)	-0.01	(0.05)	-0.16***	(0.03)
<i>Child's health endowment</i>								
=1 if birth weight < 2500g	0.08***	(0.03)	0.11**	(0.05)	0.07***	(0.02)	0.04	(0.04)
<i>Size of household</i>								
log of hh size incl. cm	-0.04	(0.03)	-0.01	(0.04)	-0.07**	(0.03)	-0.02	(0.04)
<i>Number of older siblings</i>								
no older siblings	-0.01	(0.01)	0.01	(0.03)	0.00	(0.01)	-0.03	(0.04)
two or more older siblings	-0.02	(0.01)	0.04	(0.04)	0.00	(0.02)	-0.03	(0.04)
<i>Respondent's relationship to child</i>								
=1 if natural mother of child	0.08**	(0.04)	0.00	(0.05)	0.04	(0.04)	0.08	(0.05)
<i>Country where interview took place</i>								
=1 if wales	0.05	(0.04)	-0.06	(0.09)	0.07**	(0.03)	-0.02	(0.11)
=1 if nireland	-0.00	(0.05)	0.02	(0.25)	0.03	(0.05)	-0.15	(0.11)
=1 if scotland	-0.07	(0.06)	0.03	(0.22)	0.01	(0.05)	-0.13	(0.10)
Constant	0.69***	(0.23)	-0.76	(0.76)	0.22	(0.15)	0.14	(0.46)
Cohort member/year-observations	14 842.00		3122.00		22 559.00		4372.00	
Number of cohort members	7796.00		1936.00		8152.00		2146.00	
Number of instruments used	37.00		37.00		39.00		39.00	
Overall F (Prob > F)	9.39	(0.00)	6.49	(0.00)	10.34	(0.00)	7.50	(0.00)
Hansen test of overidentification (Prob > χ^2)	24.49	(0.00)	11.90	(0.00)	5.51	(0.06)	0.68	(0.71)
Hansen test excluding group (y_{t-1}) (Prob > χ^2)	0.00	(.)		(.)	3.32	(0.07)		(0.45)
Difference (y_{t-1} , $H_0 = \text{exogenous}$) (Prob > χ^2)	24.49	(0.00)		(0.00)	2.19	(0.14)		(0.76)

Note: Own calculations based on MCS sweeps 1 to 4. Balanced panel containing all households. * p<0.10, ** p<0.05, *** p<0.01

Table A.2.14: Determinants of child health – BG + TAC (panel)

	# of health problems				# of hospital admissions			
	Two parent		Lone parent		Two parent		Lone parent	
Lagged health	0.34***	(0.03)	0.32***	(0.07)	0.15***	(0.03)	0.11***	(0.03)
Income								
log of permanent family Income (weekly, imp.)	-0.05***	(0.01)	-0.07**	(0.03)	-0.01	(0.01)	-0.01	(0.03)
Standard background controls								
<i>Maternal highest national vocational qualification</i>								
=1 if NVQ level 1	-0.03	(0.02)	0.00	(0.05)	0.00	(0.02)	-0.03	(0.05)
=1 if NVQ level 2	-0.01	(0.01)	-0.00	(0.03)	0.02*	(0.01)	0.03	(0.04)
=1 if NVQ level 3	-0.03**	(0.01)	-0.04	(0.04)	-0.00	(0.01)	0.01	(0.04)
=1 if overseas qual. only	0.04	(0.05)	-0.05	(0.07)	0.05	(0.04)	-0.11**	(0.05)
=1 if none of these	-0.03	(0.02)	0.02	(0.05)	0.03	(0.03)	-0.04	(0.05)
<i>Mother's age at birth</i>								
less than 20 years	-0.00	(0.03)	-0.02	(0.06)	0.03	(0.03)	-0.04	(0.06)
20 to 24 years	-0.00	(0.02)	0.05	(0.05)	0.02	(0.02)	-0.04	(0.05)
25 to 29 years	0.01	(0.02)	0.01	(0.04)	0.02*	(0.01)	-0.03	(0.04)
30 to 34 years	0.00	(0.01)	0.02	(0.04)	0.01	(0.01)	-0.05	(0.04)
<i>Child demography</i>								
=1 if female	-0.06***	(0.01)	-0.03	(0.02)	-0.05***	(0.01)	-0.04*	(0.02)
age (days)	-0.00	(0.00)	0.00*	(0.00)	0.00	(0.00)	0.00	(0.00)
<i>Child's ethnicity</i>								
=1 if mixed	0.02	(0.04)	-0.02	(0.06)	-0.03	(0.03)	-0.08*	(0.04)
=1 if indian	-0.01	(0.03)	-0.07	(0.13)	0.01	(0.05)	-0.10*	(0.06)
=1 if pakistani or bangladeshi	-0.02	(0.02)	-0.08	(0.10)	0.02	(0.03)	0.12	(0.18)
=1 if black	-0.02	(0.05)	-0.04	(0.09)	0.03	(0.05)	0.06	(0.07)
=1 if other	-0.02	(0.06)	-0.20***	(0.03)	-0.01	(0.05)	-0.16***	(0.03)
<i>Child's health endowment</i>								
=1 if birth weight < 2500g	0.08***	(0.03)	0.11**	(0.05)	0.07***	(0.02)	0.03	(0.04)
<i>Size of household</i>								
log of hh size incl. cm	-0.05*	(0.03)	-0.02	(0.04)	-0.07**	(0.03)	-0.03	(0.04)
<i>Number of older siblings</i>								
no older siblings	-0.01	(0.01)	0.01	(0.03)	0.00	(0.01)	-0.03	(0.04)
two or more older siblings	-0.02	(0.01)	0.05	(0.04)	0.00	(0.02)	-0.04	(0.04)
<i>Respondent's relationship to child</i>								
=1 if natural mother of child	0.08**	(0.04)	0.00	(0.05)	0.03	(0.04)	0.08	(0.05)
<i>Country where interview took place</i>								
=1 if wales	0.06*	(0.04)	-0.05	(0.09)	0.07**	(0.03)	-0.02	(0.11)
=1 if nireland	0.00	(0.05)	0.05	(0.25)	0.04	(0.05)	-0.15	(0.12)
=1 if scotland	-0.07	(0.06)	0.04	(0.23)	0.02	(0.05)	-0.13	(0.10)
Time and care								
<i>Time mother spends with child</i>								
=1 if plenty	0.00	(0.02)	-0.01	(0.03)	-0.00	(0.01)	0.04	(0.03)
=1 if just enough	-0.03**	(0.01)	-0.06**	(0.02)	0.01	(0.01)	0.00	(0.02)
<i>Childcare</i>								
=1 if formal childcare	0.00	(0.02)	0.05	(0.05)	-0.01	(0.02)	-0.01	(0.04)
=1 if informal/ other childcare	0.01	(0.02)	-0.04	(0.04)	0.02	(0.02)	-0.01	(0.04)
=1 if grandparent care	-0.02	(0.01)	0.03	(0.03)	-0.02	(0.01)	0.03	(0.04)
<i>Maternal employment (t – 1)</i>								
L.=1 if part-time	-0.03***	(0.01)	-0.04*	(0.02)	-0.01	(0.01)	-0.03	(0.03)
L.=1 if full-time	-0.02	(0.02)	-0.04	(0.06)	-0.00	(0.03)	-0.04	(0.05)
<i>How long mother breastfed child</i>								
=1 if for less than 7 days	-0.01	(0.02)	-0.02	(0.04)	-0.02	(0.02)	0.01	(0.03)
=1 if for at least 1 week to 3 months	-0.00	(0.01)	0.03	(0.03)	-0.01	(0.01)	0.01	(0.03)
=1 if for 4 to 6 months	-0.01	(0.02)	0.01	(0.05)	-0.05***	(0.01)	-0.01	(0.04)
=1 if for more than 6 months	0.00	(0.02)	-0.01	(0.03)	-0.03**	(0.01)	-0.02	(0.03)
<i>If child is naughty...</i>								
=1 if mother smacks child	-0.09**	(0.05)	0.11	(0.10)	0.01	(0.03)	0.03	(0.08)
=1 if mother tells child off	0.02*	(0.01)	0.03	(0.02)	0.02*	(0.01)	-0.01	(0.02)
<i>Bedtime on term-time weekdays</i>								
=1 if regular bedtime	-0.01	(0.02)	0.03	(0.03)	-0.01	(0.02)	-0.03	(0.03)
<i>Daily TV/ video consumption</i>								
=1 if no tv/ videos	-0.03	(0.03)	-0.04	(0.08)	-0.01	(0.04)	-0.03	(0.12)
=1 if up to 1 hour tv/ videos	0.01	(0.01)	0.03	(0.03)	-0.01	(0.01)	0.02	(0.03)
=1 if more than 3 hours tv/ videos	-0.00	(0.02)	-0.02	(0.03)	-0.00	(0.02)	-0.03	(0.03)
<i>How often mother reads to the child</i>								
=1 if several times a week	-0.01	(0.01)	-0.00	(0.02)	-0.02**	(0.01)	-0.02	(0.02)
=1 if occasionally	-0.01	(0.02)	-0.04	(0.04)	-0.03	(0.02)	-0.02	(0.04)

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Table A.2.14 – continued from previous page

	# of health problems				# of hospital admissions			
	Two parent		Lone parent		Two parent		Lone parent	
=1 if never	0.04	(0.05)	0.03	(0.07)	-0.05	(0.03)	0.07	(0.07)
Constant	0.69***	(0.23)	-0.78	(0.76)	0.22	(0.14)	0.08	(0.45)
Cohort member/year-observations	14 842.00		3122.00		22 559.00		4372.00	
Number of cohort members	7796.00		1936.00		8152.00		2146.00	
Number of instruments used	57.00		57.00		59.00		59.00	
Overall F (Prob > F)	7.74	(0.00)	4.66	(0.00)	8.36	(0.00)	5.40	(0.00)
Hansen test of overidentification (Prob > χ^2)	24.35	(0.00)	12.21	(0.00)	5.54	(0.06)	0.76	(0.69)
Hansen test excluding group (y_{t-1}) (Prob > χ^2)	0.00	(.)		(.)	3.30	(0.07)		(0.42)
Difference (y_{t-1} , $H_0 = \text{exogenous}$) (Prob > χ^2)	24.35	(0.00)		(0.00)	2.23	(0.14)		(0.75)

Note: Own calculations based on MCS sweeps 1 to 4. Balanced panel containing all households. * p<0.10, ** p<0.05, *** p<0.01

Table A.2.15: Determinants of child health – BG + HHRB (panel)

	# of health problems		# of hospital admissions	
	Two parent	Lone parent	Two parent	Lone parent
Lagged health	0.33*** (0.03)	0.32*** (0.07)	0.15*** (0.03)	0.11*** (0.03)
Income				
log of permanent family Income (weekly, imp.)	-0.03** (0.01)	-0.05* (0.03)	-0.00 (0.01)	-0.03 (0.03)
Standard background controls				
<i>Maternal highest national vocational qualification</i>				
=1 if NVQ level 1	-0.03 (0.02)	-0.02 (0.05)	0.01 (0.02)	-0.02 (0.05)
=1 if NVQ level 2	-0.01 (0.01)	-0.01 (0.03)	0.03** (0.01)	0.03 (0.04)
=1 if NVQ level 3	-0.03** (0.01)	-0.05 (0.04)	-0.00 (0.01)	0.01 (0.04)
=1 if overseas qual. only	0.04 (0.05)	-0.06 (0.07)	0.05 (0.04)	-0.09* (0.05)
=1 if none of these	-0.02 (0.02)	0.01 (0.05)	0.04 (0.03)	-0.02 (0.05)
<i>Mother's age at birth</i>				
less than 20 years	0.01 (0.03)	0.00 (0.06)	0.03 (0.03)	-0.03 (0.06)
20 to 24 years	-0.01 (0.02)	0.07 (0.05)	0.02 (0.02)	-0.03 (0.04)
25 to 29 years	0.00 (0.02)	0.02 (0.04)	0.02** (0.01)	-0.03 (0.04)
30 to 34 years	0.00 (0.01)	0.03 (0.04)	0.01 (0.01)	-0.05 (0.04)
<i>Child demography</i>				
=1 if female	-0.06*** (0.01)	-0.03 (0.02)	-0.05*** (0.01)	-0.04* (0.02)
age (days)	-0.00 (0.00)	0.00* (0.00)	0.00 (0.00)	0.00 (0.00)
<i>Child's ethnicity</i>				
=1 if mixed	0.02 (0.04)	-0.03 (0.05)	-0.03 (0.03)	-0.08* (0.04)
=1 if indian	-0.01 (0.03)	-0.07 (0.12)	0.00 (0.05)	-0.11* (0.06)
=1 if pakistani or bangladeshi	0.00 (0.02)	-0.07 (0.10)	0.02 (0.03)	0.13 (0.18)
=1 if black	-0.02 (0.04)	-0.07 (0.09)	0.02 (0.04)	0.05 (0.08)
=1 if other	-0.02 (0.06)	-0.22*** (0.05)	-0.01 (0.05)	-0.16*** (0.04)
<i>Child's health endowment</i>				
=1 if birth weight < 2500g	0.07** (0.03)	0.11** (0.05)	0.07*** (0.02)	0.04 (0.04)
<i>Size of household</i>				
log of hh size incl. cm	-0.03 (0.03)	-0.03 (0.04)	-0.07** (0.03)	-0.03 (0.04)
<i>Number of older siblings</i>				
no older siblings	-0.00 (0.01)	0.02 (0.03)	0.00 (0.01)	-0.03 (0.04)
two or more older siblings	-0.02 (0.01)	0.04 (0.04)	0.00 (0.02)	-0.04 (0.04)
<i>Respondent's relationship to child</i>				
=1 if natural mother of child	0.08** (0.04)	0.02 (0.05)	0.04 (0.04)	0.08 (0.05)
<i>Country where interview took place</i>				
=1 if wales	0.06* (0.03)	-0.03 (0.09)	0.07** (0.03)	-0.02 (0.11)
=1 if nireland	-0.02 (0.05)	-0.00 (0.23)	0.03 (0.05)	-0.15 (0.12)
=1 if scotland	-0.07 (0.06)	0.03 (0.21)	0.01 (0.05)	-0.12 (0.10)
Health and health-related behaviour				
<i>Maternal physical health</i>				
=1 if longstanding illness	0.12*** (0.01)	0.16*** (0.03)	0.06*** (0.01)	0.03 (0.02)
<i>Maternal mental health (dichotomised)</i>				
=1 if high distress	0.03 (0.04)	0.06 (0.05)	0.02 (0.03)	0.01 (0.04)
<i>Does mother currently smoke</i>				
=1 if currently smokes	0.02 (0.01)	-0.01 (0.02)	0.01 (0.02)	-0.03 (0.03)
<i>How often mother drinks alcohol</i>				
=1 if 1-2 times per month	0.00 (0.02)	-0.03 (0.03)	0.01 (0.01)	-0.01 (0.03)
=1 if 1-2 times per week	-0.02 (0.01)	-0.01 (0.03)	-0.01 (0.01)	0.04 (0.03)
=1 if at least 3 times a week	-0.02 (0.02)	-0.07* (0.04)	-0.01 (0.01)	-0.02 (0.03)
Constant	0.54** (0.23)	-0.75 (0.75)	0.15 (0.15)	0.15 (0.46)
Cohort member/year-observations	14 842.00	3122.00	22 559.00	4372.00
Number of cohort members	7796.00	1936.00	8152.00	2146.00
Number of instruments used	43.00	43.00	45.00	45.00
Overall F (Prob > F)	10.57 (0.00)	5.41 (0.00)	9.11 (0.00)	5.42 (0.00)
Hansen test of overidentification (Prob > χ^2)	22.47 (0.00)	11.87 (0.00)	5.53 (0.06)	0.59 (0.75)
Hansen test excluding Group (y_{t-1}) (Prob > χ^2)	0.00 (.)	(.)	3.22 (0.07)	(0.48)
Difference (y_{t-1} , $H_0 = \text{exogenous}$) (Prob > χ^2)	22.47 (0.00)	(0.00)	2.31 (0.13)	(0.76)

Note: Own calculations based on MCS sweeps 1 to 4. Balanced panel containing all households. * p<0.10, ** p<0.05, *** p<0.01

Table A.2.16: Determinants of child health – BG + OTHI (panel)

	# of health problems				# of hospital admissions			
	Two parent		Lone parent		Two parent		Lone parent	
Lagged health	0.34***	(0.03)	0.32***	(0.07)	0.15***	(0.03)	0.11***	(0.03)
Income								
log of permanent family Income (weekly, imp.)	-0.04***	(0.02)	-0.06*	(0.03)	-0.00	(0.01)	-0.04	(0.03)
Standard background controls								
<i>Maternal highest national vocational qualification</i>								
=1 if NVQ level 1	-0.03	(0.02)	-0.01	(0.05)	0.01	(0.02)	-0.02	(0.05)
=1 if NVQ level 2	-0.01	(0.01)	-0.01	(0.03)	0.03**	(0.01)	0.03	(0.04)
=1 if NVQ level 3	-0.03**	(0.01)	-0.04	(0.04)	-0.00	(0.01)	0.01	(0.04)
=1 if overseas qual. only	0.04	(0.05)	-0.06	(0.07)	0.05	(0.04)	-0.09*	(0.05)
=1 if none of these	-0.03	(0.02)	0.01	(0.05)	0.04	(0.03)	-0.03	(0.05)
<i>Mother's age at birth</i>								
less than 20 years	-0.00	(0.03)	-0.03	(0.06)	0.03	(0.03)	-0.03	(0.06)
20 to 24 years	-0.01	(0.02)	0.05	(0.05)	0.02	(0.02)	-0.03	(0.04)
25 to 29 years	0.00	(0.02)	0.01	(0.04)	0.02**	(0.01)	-0.02	(0.04)
30 to 34 years	-0.00	(0.01)	0.02	(0.04)	0.01	(0.01)	-0.05	(0.04)
<i>Child demography</i>								
=1 if female	-0.06***	(0.01)	-0.03	(0.02)	-0.05***	(0.01)	-0.04*	(0.02)
age (days)	-0.00	(0.00)	0.00*	(0.00)	0.00	(0.00)	0.00	(0.00)
<i>Child's ethnicity</i>								
=1 if mixed	0.02	(0.04)	-0.02	(0.06)	-0.03	(0.03)	-0.08**	(0.04)
=1 if indian	-0.01	(0.03)	-0.05	(0.12)	0.00	(0.05)	-0.10*	(0.06)
=1 if pakistani or bangladeshi	-0.02	(0.02)	-0.06	(0.10)	0.02	(0.03)	0.13	(0.18)
=1 if black	-0.02	(0.05)	-0.06	(0.09)	0.02	(0.04)	0.05	(0.07)
=1 if other	-0.02	(0.06)	-0.20***	(0.04)	-0.02	(0.05)	-0.15***	(0.04)
<i>Child's health endowment</i>								
=1 if birth weight < 2500g	0.08***	(0.03)	0.11**	(0.05)	0.07***	(0.02)	0.04	(0.04)
<i>Size of household</i>								
log of hh size incl. cm	-0.04	(0.03)	-0.02	(0.04)	-0.07**	(0.03)	-0.02	(0.04)
<i>Number of older siblings</i>								
no older siblings	-0.01	(0.01)	0.01	(0.03)	0.00	(0.01)	-0.03	(0.03)
two or more older siblings	-0.02	(0.01)	0.03	(0.04)	0.00	(0.02)	-0.03	(0.04)
<i>Respondent's relationship to child</i>								
=1 if natural mother of child	0.08**	(0.04)	-0.00	(0.05)	0.04	(0.04)	0.08	(0.05)
<i>Country where interview took place</i>								
=1 if wales	0.06	(0.04)	-0.06	(0.09)	0.07**	(0.03)	-0.03	(0.11)
=1 if nireland	0.00	(0.05)	0.07	(0.26)	0.03	(0.05)	-0.14	(0.10)
=1 if scotland	-0.07	(0.06)	0.02	(0.23)	0.01	(0.05)	-0.14	(0.10)
Other								
<i>Housing tenure</i>								
=1 if council rented	-0.02	(0.02)	0.00	(0.03)	0.01	(0.02)	0.01	(0.04)
=1 if rented (housing association or private)/ other	0.03	(0.02)	0.03	(0.03)	0.01	(0.02)	-0.01	(0.03)
<i>Problems with damp on the wall</i>								
=1 if at least some problems	0.07**	(0.03)	0.05	(0.04)	0.05*	(0.03)	-0.04	(0.03)
<i>Child's fruit consumption</i>								
=1 if cm has at least one portion of fruit per day	-0.02	(0.03)	-0.04	(0.04)	-0.00	(0.02)	0.02	(0.05)
<i>Maternal grandfathers' SES when respondent was aged 14</i>								
=1 if was not working	0.02	(0.02)	0.03	(0.04)	-0.00	(0.02)	0.00	(0.04)
=1 if managerial/ professional occupation	-0.03*	(0.01)	0.02	(0.04)	-0.01	(0.01)	0.03	(0.04)
=1 if technical, semi-routine or routine occupation	-0.01	(0.01)	0.05*	(0.03)	-0.00	(0.01)	0.02	(0.03)
=1 if can't remember or father died	0.00	(0.02)	0.05	(0.04)	-0.01	(0.02)	0.03	(0.05)
Constant	0.67***	(0.24)	-0.71	(0.77)	0.19	(0.15)	0.13	(0.46)
Cohort member/year-observations	14 842.00		3122.00		22 559.00		4372.00	
Number of Cohort Members	7796.00		1936.00		8152.00		2146.00	
Number of instruments used	45.00		45.00		47.00		47.00	
Overall F (Prob > F)	8.41	(0.00)	4.81	(0.00)	8.84	(0.00)	6.17	(0.00)
Hansen test of overidentification (Prob > χ^2)	24.28	(0.00)	11.86	(0.00)	5.45	(0.07)	0.66	(0.72)
Hansen test excluding group (y_{t-1}) (Prob > χ^2)	0.00	(.)		(.)	3.26	(0.07)		(0.45)
Difference (y_{t-1} , $H_0 =$ exogenous) (Prob > χ^2)	24.28	(0.00)		(0.00)	2.19	(0.14)		(0.76)

Note: Own calculations based on MCS sweeps 1 to 4. Balanced panel containing all households. * p<0.10, ** p<0.05, *** p<0.01

Appendix 3

Table A.3.1: Summary statistics of control variables

	Age 5								Age 7							
	Lone parent				Two parent				Lone parent				Two parents			
	y_{t-1} -Eq.		h_{t-1} -Eq.		y_{t-1} -Eq.		h_{t-1} -Eq.		y_{t-1} -Eq.		h_{t-1} -Eq.		y_{t-1} -Eq.		h_{t-1} -Eq.	
	mean	sd	mean	sd	mean	sd	mean	sd	mean	sd	mean	sd	mean	sd	mean	sd
Standard background controls																
<i>Income</i>																
log of permanent family income (weekly, imp.)	5.42	0.51	5.42	0.51	6.24	0.48	6.24	0.48	5.52	0.55	5.52	0.55	6.24	0.49	6.24	0.49
<i>Maternal education</i>																
=1 if NVQ level 1 or 2	0.44	0.50	0.47	0.50	0.33	0.47	0.34	0.47	0.41	0.49	0.43	0.49	0.31	0.46	0.33	0.47
=1 if NVQ level 3	0.16	0.37	0.16	0.37	0.17	0.37	0.17	0.37	0.16	0.37	0.17	0.37	0.17	0.37	0.16	0.37
=1 if NVQ level 4 or 5	0.25	0.43	0.21	0.41	0.44	0.50	0.42	0.49	0.29	0.45	0.26	0.44	0.46	0.50	0.44	0.50
=1 if overseas qual. only	0.03	0.16	0.02	0.15	0.01	0.12	0.01	0.12	0.02	0.15	0.02	0.15	0.01	0.12	0.01	0.12
=1 if none of these	0.13	0.33	0.14	0.35	0.06	0.23	0.06	0.24	0.12	0.32	0.13	0.33	0.05	0.22	0.06	0.23
<i>Mother's age at birth</i>																
=1 if less than 25 years	0.42	0.49	0.42	0.49	0.17	0.38	0.17	0.38	0.38	0.49	0.38	0.49	0.18	0.38	0.18	0.38
=1 if 25 to 29 years	0.27	0.44	0.27	0.44	0.29	0.45	0.29	0.45	0.27	0.45	0.27	0.45	0.29	0.45	0.29	0.45
=1 if 30 to 34 years	0.20	0.40	0.20	0.40	0.35	0.48	0.35	0.48	0.23	0.42	0.23	0.42	0.35	0.48	0.35	0.48
=1 if more than 35 years	0.11	0.31	0.11	0.31	0.19	0.39	0.19	0.39	0.12	0.32	0.12	0.32	0.19	0.39	0.19	0.39
<i>Child demography</i>																
=1 if female	0.49	0.50	0.49	0.50	0.49	0.50	0.49	0.50	0.49	0.50	0.49	0.50	0.50	0.50	0.50	0.50
age (years)	5.24	0.25	3.15	0.22	5.21	0.24	3.12	0.18	7.23	0.25	5.22	0.25	7.22	0.24	5.21	0.24
=1 if ethnicity is non-white	0.11	0.31	0.11	0.31	0.07	0.26	0.07	0.26	0.11	0.31	0.11	0.31	0.07	0.26	0.07	0.26
<i>Child's health endowment</i>																
=1 if birth weight < 2500g	0.07	0.26	0.07	0.26	0.05	0.21	0.05	0.21	0.07	0.26	0.07	0.26	0.05	0.22	0.05	0.22
<i>Size of household</i>																
log of hh size incl. cm	1.12	0.34	1.19	0.36	1.46	0.21	1.40	0.24	1.21	0.32	1.22	0.36	1.50	0.21	1.45	0.23
<i>Number of older siblings</i>																
=1 if no older siblings	0.49	0.50	0.49	0.50	0.42	0.49	0.42	0.49	0.46	0.50	0.46	0.50	0.42	0.49	0.42	0.49
=1 if one older sibling	0.31	0.46	0.31	0.46	0.38	0.49	0.38	0.49	0.32	0.47	0.32	0.47	0.38	0.49	0.38	0.49
=1 if two or more older siblings	0.20	0.40	0.20	0.40	0.21	0.40	0.21	0.40	0.22	0.42	0.22	0.42	0.20	0.40	0.20	0.40
<i>Respondent's relationship to child</i>																

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Table A.3.1 – continued from previous page

	Age 5				Age 7											
	Lone parents		Two parents		Lone parents		Two parents									
	y_t -Eq.		h_{t-1} -Eq.		y_t -Eq.		h_{t-1} -Eq.									
	mean	sd	mean	sd	mean	sd	mean	sd								
=1 if natural mother of child	0.98	0.14	0.99	0.11	0.99	0.11	0.99	0.08	0.97	0.16	0.98	0.13	0.99	0.12	0.99	0.11
<i>Country where interview took place</i>																
=1 if england	0.60	0.49	0.60	0.49	0.61	0.49	0.61	0.49	0.62	0.49	0.62	0.49	0.62	0.49	0.62	0.49
=1 if wales	0.17	0.38	0.17	0.38	0.16	0.37	0.16	0.37	0.16	0.37	0.16	0.37	0.14	0.35	0.15	0.35
=1 if nireland	0.11	0.31	0.11	0.31	0.10	0.30	0.10	0.30	0.10	0.30	0.10	0.30	0.10	0.30	0.10	0.30
=1 if scotland	0.12	0.32	0.12	0.32	0.13	0.34	0.13	0.34	0.12	0.32	0.12	0.32	0.14	0.34	0.13	0.34
Time and care																
<i>Time mother spends with child</i>																
=1 if at least just enough	0.69	0.46	0.81	0.39	0.67	0.47	0.79	0.41	0.64	0.48	0.68	0.47	0.67	0.47	0.67	0.47
<i>Childcare</i>																
=1 if no childcare	0.57	0.50	0.58	0.49	0.61	0.49	0.59	0.49	0.53	0.50	0.60	0.49	0.59	0.49	0.60	0.49
=1 if formal childcare	0.05	0.23	0.17	0.38	0.06	0.23	0.20	0.40	0.06	0.25	0.06	0.23	0.06	0.23	0.06	0.23
=1 if informal/ other childcare	0.09	0.29	0.05	0.21	0.07	0.26	0.04	0.20	0.12	0.32	0.09	0.28	0.09	0.29	0.07	0.26
=1 if grandparent care	0.26	0.44	0.20	0.40	0.25	0.44	0.17	0.38	0.25	0.43	0.24	0.42	0.24	0.43	0.26	0.44
<i>Maternal employment (t – 1)</i>																
=1 if not working	0.55	0.50	0.61	0.49	0.38	0.49	0.40	0.49	0.46	0.50	0.53	0.50	0.33	0.47	0.38	0.49
=1 if working part-time	0.41	0.49	0.35	0.48	0.57	0.50	0.53	0.50	0.48	0.50	0.43	0.49	0.61	0.49	0.56	0.50
=1 if working full-time	0.04	0.20	0.04	0.19	0.05	0.23	0.06	0.25	0.06	0.24	0.05	0.21	0.05	0.23	0.05	0.22
<i>How long mother breastfed child</i>																
=1 if at least 6 months	0.11	0.31	0.11	0.31	0.21	0.41	0.21	0.41	0.12	0.33	0.12	0.33	0.21	0.41	0.21	0.41
<i>If child is naughty...</i>																
=1 if mother smacks child	0.02	0.13	0.11	0.31	0.01	0.12	0.09	0.29	0.01	0.11	0.02	0.14	0.01	0.09	0.01	0.11
=1 if mother tells child off	0.58	0.49	0.83	0.38	0.61	0.49	0.84	0.36	0.50	0.50	0.58	0.49	0.53	0.50	0.61	0.49
<i>Bedtime on term-time weekdays</i>																
=1 if regular bedtime	0.87	0.33	0.77	0.42	0.92	0.27	0.83	0.38	0.89	0.31	0.87	0.33	0.92	0.26	0.92	0.27
<i>Daily TV/ video consumption</i>																
=1 if more than 3 hours tv/ videos	0.18	0.38	0.19	0.40	0.13	0.34	0.14	0.35	0.18	0.38	0.18	0.38	0.14	0.34	0.13	0.34

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Table A.3.1 – continued from previous page

	Age 5								Age 7							
	Lone parents				Two parents				Lone parents				Two parents			
	y_t -Eq.		h_{t-1} -Eq.		y_t -Eq.		h_{t-1} -Eq.		y_t -Eq.		h_{t-1} -Eq.		y_t -Eq.		h_{t-1} -Eq.	
	mean	sd	mean	sd	mean	sd	mean	sd	mean	sd	mean	sd	mean	sd	mean	sd
<i>How often mother reads to the child</i>																
=1 if at least several times a week	0.95	0.23	0.92	0.28	0.96	0.20	0.96	0.20	0.89	0.31	0.94	0.23	0.91	0.28	0.96	0.20
Health and health-related behaviour																
<i>Maternal physical health</i>																
=1 if longstanding illness	0.27	0.44	0.26	0.44	0.23	0.42	0.21	0.41	0.29	0.45	0.26	0.44	0.24	0.43	0.23	0.42
<i>Maternal mental health</i>																
=1 if high distress	0.06	0.24	0.07	0.25	0.02	0.15	0.02	0.14	0.06	0.24	0.05	0.22	0.02	0.15	0.02	0.15
<i>Does mother currently smoke</i>																
=1 if currently smokes	0.52	0.50	0.52	0.50	0.21	0.41	0.23	0.42	0.47	0.50	0.49	0.50	0.21	0.40	0.21	0.41
<i>How often mother drinks alcohol</i>																
=1 if at least 3 times a week	0.13	0.34	0.12	0.32	0.21	0.41	0.19	0.39	0.16	0.37	0.14	0.35	0.21	0.41	0.21	0.41
Hyperactivity risk factors																
<i>Gestational age</i>																
=1 if gestational age < 37 weeks			0.08	0.27			0.06	0.24			0.07	0.26			0.06	0.24
<i>Maternal mental health (age 1)</i>																
=1 if increased risk of depression/ anxiety			0.20	0.40			0.11	0.32			0.19	0.39			0.12	0.32
<i>Alcohol consumption during pregnancy</i>																
=1 if less than once a month			0.84	0.37			0.82	0.39			0.84	0.37			0.82	0.39
=1 if 1-2 times per month			0.07	0.25			0.08	0.28			0.08	0.27			0.08	0.27
=1 if at least once a week			0.09	0.29			0.10	0.30			0.09	0.28			0.10	0.30
<i>Smoking during pregnancy</i>																
=1 if mother smoked during pregnancy			0.42	0.49			0.20	0.40			0.40	0.49			0.20	0.40
<i>Smoking in the same room as child</i>																
=1 if anyone smokes in same room as child (age 1)			0.21	0.41			0.10	0.30			0.18	0.39			0.10	0.30
=1 if anyone smokes in same room as child (age 3)			0.29	0.45			0.14	0.34			0.28	0.45			0.14	0.34
<i>Maternal attachment</i>																
Condon scale score			-0.07	1.00			0.12	0.90			-0.03	0.98			0.11	0.90

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Table A.3.1 – continued from previous page

	Age 5				Age 7											
	Lone parents		Two parents		Lone parents		Two parents									
	y_t -Eq.		h_{t-1} -Eq.		y_t -Eq.		h_{t-1} -Eq.									
	mean	sd	mean	sd	mean	sd	mean	sd								
<i>Child-parent relationship</i>																
CPRS scale score (age 3)			-0.13	1.07			0.08	0.94			-0.10	1.03			0.07	0.95
<i>Maltreatment of children</i>																
Straus's Conflict Tactics Scale, standardized score (age 3)			0.07	1.02			0.04	0.97			0.08	1.02			0.04	0.97
Other																
<i>Housing tenure</i>																
=1 if mortgaged/owned	0.29	0.45	0.32	0.47	0.81	0.39	0.80	0.40	0.34	0.47	0.37	0.48	0.82	0.38	0.81	0.39
=1 if council rented	0.29	0.46	0.30	0.46	0.08	0.27	0.09	0.29	0.27	0.44	0.27	0.45	0.07	0.26	0.08	0.27
=1 if rented (housing association or private)/ other	0.42	0.49	0.37	0.48	0.11	0.31	0.11	0.32	0.40	0.49	0.35	0.48	0.11	0.31	0.11	0.32
<i>Child's fruit consumption</i>																
=1 if cm has at least one portion of fruit per day	0.94	0.23	0.94	0.23	0.97	0.18	0.98	0.15	0.93	0.26	0.94	0.24	0.96	0.20	0.97	0.18
<i>Maternal grandfathers' SES when respondent was aged 14</i>																
=1 if was not working	0.11	0.32	0.11	0.32	0.06	0.24	0.06	0.24	0.11	0.31	0.11	0.31	0.06	0.24	0.06	0.24
=1 if managerial/ professional occupation	0.14	0.35	0.14	0.35	0.22	0.42	0.22	0.42	0.14	0.35	0.14	0.35	0.22	0.42	0.22	0.42
=1 if intermediate occupation	0.18	0.39	0.18	0.39	0.22	0.41	0.22	0.41	0.19	0.39	0.19	0.39	0.21	0.41	0.21	0.41
=1 if technical, semi-routine or routine occupation	0.37	0.48	0.37	0.48	0.35	0.48	0.35	0.48	0.36	0.48	0.36	0.48	0.35	0.48	0.35	0.48
=1 if can't remember or father died	0.10	0.30	0.10	0.30	0.05	0.23	0.05	0.23	0.09	0.28	0.09	0.28	0.06	0.23	0.06	0.23
<i>Problems with damp on the wall</i>																
=1 if at least some problems			0.10	0.30			0.05	0.22			0.10	0.30			0.05	0.22
N	1422				7322				1568				7047			

Note: Own calculations based on MCS.

Table A.3.2: ML Estimates: BAS, NFER and # Chronic Conditions (Eq. 1, LP)

	Age 5						Age 7					
	BAS NV		BAS PC		BAS PS		BAS PC		BAS WR		NFER Math	
Child Health ($t - 1$)												
number of health problems	-0.07	(0.05)	-0.15***	(0.05)	-0.07	(0.05)	-0.07	(0.05)	-0.06	(0.04)	-0.03	(0.05)
Standard Background Controls												
<i>Income</i>												
log of permanent family income (weekly, imp.)	0.21***	(0.08)	0.04	(0.08)	0.21***	(0.08)	0.26***	(0.07)	0.01	(0.07)	0.13*	(0.07)
<i>Maternal education</i>												
=1 if NVQ level 1 or 2	-0.12*	(0.07)	-0.12	(0.07)	-0.12*	(0.07)	-0.15**	(0.07)	-0.18***	(0.06)	-0.20***	(0.07)
=1 if NVQ level 3	-0.06	(0.08)	-0.00	(0.09)	-0.06	(0.08)	0.11	(0.08)	-0.02	(0.07)	-0.01	(0.08)
=1 if overseas qual. only	-0.34**	(0.17)	-0.15	(0.17)	-0.34**	(0.17)	-0.17	(0.17)	-0.17	(0.17)	-0.22	(0.18)
=1 if none of these	-0.09	(0.10)	-0.14	(0.10)	-0.09	(0.10)	-0.04	(0.10)	-0.33***	(0.09)	-0.20**	(0.10)
<i>Mother's age at birth</i>												
=1 if less than 25 years	-0.20**	(0.10)	-0.04	(0.10)	-0.20**	(0.10)	0.10	(0.10)	-0.16*	(0.09)	0.02	(0.10)
=1 if 25 to 29 years	0.01	(0.09)	-0.06	(0.09)	0.01	(0.09)	0.08	(0.09)	-0.14	(0.09)	-0.02	(0.09)
=1 if 30 to 34 years	0.02	(0.09)	-0.07	(0.10)	0.02	(0.09)	0.06	(0.09)	0.01	(0.09)	0.02	(0.09)
<i>Child demography</i>												
=1 if female	-0.04	(0.05)	0.14***	(0.05)	-0.04	(0.05)	0.02	(0.05)	0.08*	(0.05)	-0.11**	(0.05)
age (years)	0.61***	(0.10)	0.56***	(0.10)	0.61***	(0.10)	0.39***	(0.10)	0.53***	(0.10)	0.38***	(0.10)
=1 if ethnicity is non-white	-0.19**	(0.10)	-0.13	(0.10)	-0.19**	(0.10)	-0.11	(0.09)	0.23**	(0.09)	0.10	(0.09)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	-0.05	(0.09)	-0.21**	(0.10)	-0.05	(0.09)	-0.23**	(0.10)	-0.07	(0.09)	-0.12	(0.10)
<i>Size of household</i>												
log of hh size incl. cm	-0.24**	(0.10)	-0.14	(0.10)	-0.24**	(0.10)	-0.02	(0.10)	-0.11	(0.10)	-0.25**	(0.10)
<i>Number of older siblings</i>												
=1 if no older siblings	0.18***	(0.07)	-0.02	(0.07)	0.18***	(0.07)	-0.02	(0.06)	0.11*	(0.06)	-0.08	(0.06)
=1 if two or more older siblings	-0.15*	(0.08)	-0.03	(0.08)	-0.15*	(0.08)	-0.10	(0.08)	-0.13*	(0.07)	-0.10	(0.08)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	0.07	(0.18)	0.11	(0.19)	0.07	(0.18)	0.17	(0.15)	0.00	(0.15)	0.03	(0.15)
<i>Country where interview took place</i>												
=1 if wales	-0.26	(0.33)	-0.02	(0.34)	-0.26	(0.33)	0.43	(0.28)	-0.10	(0.27)	0.06	(0.28)
=1 if nireland	2.41***	(0.65)	3.32***	(0.67)	2.41***	(0.65)	1.04	(0.96)	-0.22	(0.92)	0.70	(0.96)
=1 if scotland	-0.82*	(0.42)	0.19	(0.43)	-0.82*	(0.42)	0.12	(0.35)	0.21	(0.33)	0.30	(0.35)
Time and Care												
<i>Time mother spends with child</i>												
=1 if at least just enough	0.06	(0.06)	0.05	(0.06)	0.06	(0.06)	0.05	(0.05)	0.04	(0.05)	0.00	(0.05)
<i>Childcare</i>												
=1 if formal childcare	-0.21*	(0.12)	-0.05	(0.12)	-0.21*	(0.12)	-0.11	(0.11)	-0.18*	(0.10)	-0.08	(0.11)
=1 if informal/ other childcare	-0.20**	(0.09)	-0.10	(0.09)	-0.20**	(0.09)	0.00	(0.08)	-0.20***	(0.08)	-0.10	(0.08)
=1 if grandparent care	-0.01	(0.06)	0.01	(0.06)	-0.01	(0.06)	-0.01	(0.06)	0.07	(0.06)	-0.01	(0.06)
<i>Maternal employment ($t - 1$)</i>												
=1 if working part-time	0.12*	(0.06)	-0.00	(0.07)	0.12*	(0.06)	0.06	(0.06)	0.15**	(0.06)	0.14**	(0.06)
=1 if working full-time	0.04	(0.14)	0.04	(0.14)	0.04	(0.14)	0.02	(0.12)	0.07	(0.11)	0.09	(0.12)
<i>How long mother breastfed child</i>												

continued on next page

Table A.3.2 – continued from previous page												
	Age 5						Age 7					
	BAS NV		BAS PC		BAS PS		BAS PC		BAS WR		NFER Math	
=1 if at least 6 months	0.05	(0.08)	0.01	(0.09)	0.05	(0.08)	0.00	(0.08)	-0.02	(0.08)	0.03	(0.08)
<i>If child is naughty...</i>												
=1 if mother smacks child	-0.14	(0.20)	-0.33	(0.20)	-0.14	(0.20)	-0.18	(0.22)	0.27	(0.21)	-0.01	(0.22)
=1 if mother tells child off	0.01	(0.05)	-0.04	(0.05)	0.01	(0.05)	-0.05	(0.05)	-0.11**	(0.05)	-0.07	(0.05)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	0.10	(0.08)	0.15*	(0.08)	0.10	(0.08)	0.19**	(0.08)	0.06	(0.08)	0.12	(0.08)
<i>Daily TV/ video consumption</i>												
=1 if more than 3 hours tv/ videos	0.02	(0.07)	0.08	(0.07)	0.02	(0.07)	-0.01	(0.06)	-0.05	(0.06)	0.03	(0.07)
<i>How often mother reads to the child</i>												
=1 if at least several times a week	0.19*	(0.11)	0.07	(0.11)	0.19*	(0.11)	-0.06	(0.08)	-0.17**	(0.08)	-0.15*	(0.08)
Health and Health Related Behaviour												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.02	(0.06)	-0.03	(0.06)	0.02	(0.06)	0.02	(0.05)	0.03	(0.05)	0.04	(0.06)
<i>Maternal mental health</i>												
=1 if high distress	0.13	(0.11)	0.06	(0.11)	0.13	(0.11)	-0.20*	(0.10)	0.03	(0.10)	-0.09	(0.11)
<i>Does mother currently smoke</i>												
=1 if currently smokes	-0.04	(0.05)	-0.12**	(0.05)	-0.04	(0.05)	-0.11**	(0.05)	-0.17***	(0.05)	-0.10*	(0.05)
<i>How often mother drinks alcohol</i>												
=1 if at least 3 times a week	0.08	(0.08)	-0.08	(0.08)	0.08	(0.08)	0.04	(0.07)	0.09	(0.07)	0.02	(0.07)
Other												
<i>Housing tenure</i>												
=1 if council rented	0.03	(0.08)	-0.25***	(0.09)	0.03	(0.08)	-0.01	(0.08)	-0.09	(0.08)	-0.06	(0.08)
=1 if rented (housing association or private)/ other	0.12	(0.07)	-0.28***	(0.08)	0.12	(0.07)	-0.02	(0.07)	-0.08	(0.07)	0.03	(0.07)
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	0.11	(0.11)	0.12	(0.11)	0.11	(0.11)	0.13	(0.10)	0.01	(0.09)	0.27***	(0.10)
<i>Maternal grandfathers' SES when respondent was aged 14</i>												
=1 if was not working	-0.20**	(0.09)	-0.06	(0.09)	-0.20**	(0.09)	-0.04	(0.09)	-0.07	(0.08)	-0.06	(0.09)
=1 if managerial/ professional occupation	0.05	(0.08)	0.07	(0.08)	0.05	(0.08)	0.03	(0.08)	0.17**	(0.08)	-0.04	(0.08)
=1 if technical, semi-routine or routine occupation	-0.08	(0.06)	-0.02	(0.07)	-0.08	(0.06)	-0.06	(0.06)	0.01	(0.06)	-0.12*	(0.06)
=1 if can't remember or father died	0.00	(0.09)	0.08	(0.10)	0.00	(0.09)	-0.05	(0.10)	-0.07	(0.09)	0.06	(0.10)
constant	-4.33***	(0.73)	-2.98***	(0.75)	-4.33***	(0.73)	-4.56***	(0.86)	-3.34***	(0.83)	-3.13***	(0.87)
σ_ϵ	0.91***	(0.02)	0.94***	(0.02)	0.91***	(0.02)	0.95***	(0.02)	0.91***	(0.02)	0.95***	(0.02)
N	1422.00		1422.00		1422.00		1568.00		1568.00		1568.00	
$\chi^2 (Prob > \chi^2)$	277.31	(0.00)	185.84	(0.00)	277.31	(0.00)	185.83	(0.00)	325.85	(0.00)	160.44	(0.00)

Note: Own calculations based on MCS. BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation. * p<0.10, ** p<0.05, *** p<0.01. Standard errors in parentheses.

Table A.3.3: ML Estimates: BAS, NFER and # Chronic Conditions (Eq. 1, TP)

	Age 5						Age 7					
	BAS NV		BAS PC		BAS PS		BAS PC	BAS WR	NFER Math			
Child Health ($t - 1$)												
number of health problems	-0.04	(0.03)	-0.07**	(0.03)	-0.04	(0.03)	-0.09***	(0.02)	-0.07***	(0.02)	-0.09***	(0.02)
Standard Background Controls												
<i>Income</i>												
log of permanent family income (weekly, imp.)	0.16***	(0.03)	0.16***	(0.03)	0.16***	(0.03)	0.23***	(0.03)	0.34***	(0.03)	0.36***	(0.03)
<i>Maternal education</i>												
=1 if NVQ level 1 or 2	-0.18***	(0.03)	-0.09***	(0.03)	-0.18***	(0.03)	-0.10***	(0.03)	-0.14***	(0.03)	-0.11***	(0.03)
=1 if NVQ level 3	-0.13***	(0.03)	-0.08**	(0.03)	-0.13***	(0.03)	-0.07**	(0.03)	-0.07**	(0.03)	-0.06*	(0.03)
=1 if overseas qual. only	-0.30***	(0.09)	-0.01	(0.10)	-0.30***	(0.09)	-0.22**	(0.10)	-0.22**	(0.09)	-0.03	(0.10)
=1 if none of these	-0.37***	(0.05)	-0.10*	(0.06)	-0.37***	(0.05)	-0.21***	(0.06)	-0.24***	(0.06)	-0.21***	(0.06)
<i>Mother's age at birth</i>												
=1 if less than 25 years	-0.29***	(0.04)	-0.03	(0.05)	-0.29***	(0.04)	-0.01	(0.05)	-0.15***	(0.04)	0.02	(0.05)
=1 if 25 to 29 years	-0.09***	(0.03)	0.01	(0.04)	-0.09***	(0.03)	0.02	(0.04)	-0.01	(0.04)	0.06	(0.04)
=1 if 30 to 34 years	-0.02	(0.03)	0.02	(0.03)	-0.02	(0.03)	0.03	(0.03)	0.01	(0.03)	0.05	(0.03)
<i>Child demography</i>												
=1 if female	0.06***	(0.02)	0.13***	(0.02)	0.06***	(0.02)	0.05**	(0.02)	0.13***	(0.02)	-0.07***	(0.02)
age (years)	0.70***	(0.05)	0.76***	(0.05)	0.70***	(0.05)	0.47***	(0.05)	0.55***	(0.05)	0.58***	(0.05)
=1 if ethnicity is non-white	-0.42***	(0.05)	-0.03	(0.05)	-0.42***	(0.05)	-0.10*	(0.05)	0.25***	(0.05)	-0.01	(0.05)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	-0.08	(0.05)	-0.26***	(0.05)	-0.08	(0.05)	-0.28***	(0.05)	-0.17***	(0.05)	-0.24***	(0.05)
<i>Size of household</i>												
log of hh size incl. cm	-0.27***	(0.07)	-0.19***	(0.07)	-0.27***	(0.07)	-0.08	(0.07)	-0.15**	(0.07)	-0.06	(0.07)
<i>Number of older siblings</i>												
=1 if no older siblings	0.20***	(0.03)	-0.01	(0.03)	0.20***	(0.03)	0.05*	(0.03)	0.13***	(0.03)	0.06**	(0.03)
=1 if two or more older siblings	-0.17***	(0.04)	-0.03	(0.04)	-0.17***	(0.04)	-0.07*	(0.04)	-0.20***	(0.04)	-0.09**	(0.04)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	-0.02	(0.10)	0.01	(0.10)	-0.02	(0.10)	0.15	(0.10)	0.06	(0.09)	0.06	(0.09)
<i>Country where interview took place</i>												
=1 if wales	0.11	(0.11)	0.13	(0.12)	0.11	(0.11)	0.21*	(0.12)	0.10	(0.11)	0.25**	(0.12)
=1 if nireland	0.21	(0.28)	0.46	(0.29)	0.21	(0.28)	0.60**	(0.28)	0.74***	(0.26)	0.62**	(0.28)
=1 if scotland	0.07	(0.14)	0.09	(0.15)	0.07	(0.14)	0.20	(0.15)	-0.29**	(0.14)	0.14	(0.14)
Time and Care												
<i>Time mother spends with child</i>												
=1 if at least just enough	-0.02	(0.02)	-0.01	(0.03)	-0.02	(0.02)	-0.00	(0.03)	0.05**	(0.02)	0.05**	(0.03)
<i>Childcare</i>												
=1 if formal childcare	-0.08	(0.05)	0.02	(0.05)	-0.08	(0.05)	0.07	(0.05)	-0.03	(0.05)	0.05	(0.05)
=1 if informal/ other childcare	-0.07	(0.04)	-0.02	(0.05)	-0.07	(0.04)	-0.03	(0.04)	-0.06	(0.04)	-0.07*	(0.04)
=1 if grandparent care	0.01	(0.03)	-0.01	(0.03)	0.01	(0.03)	-0.04	(0.03)	0.00	(0.03)	0.04	(0.03)
<i>Maternal employment ($t - 1$)</i>												
=1 if working part-time	0.01	(0.03)	-0.05*	(0.03)	0.01	(0.03)	-0.04	(0.03)	0.02	(0.03)	-0.03	(0.03)
=1 if working full-time	-0.02	(0.05)	0.01	(0.06)	-0.02	(0.05)	0.01	(0.06)	-0.10*	(0.05)	-0.05	(0.06)
<i>How long mother breastfed child</i>												

continued on next page

Table A.3.3 – continued from previous page

	Age 5						Age 7					
	BAS NV		BAS PC		BAS PS		BAS PC		BAS WR		NFER Math	
=1 if at least 6 months	0.12***	(0.03)	0.02	(0.03)	0.12***	(0.03)	0.12***	(0.03)	0.09***	(0.03)	0.11***	(0.03)
<i>If child is naughty...</i>												
=1 if mother smacks child	0.00	(0.09)	0.02	(0.10)	0.00	(0.09)	-0.03	(0.13)	-0.05	(0.12)	-0.16	(0.13)
=1 if mother tells child off	0.01	(0.02)	-0.02	(0.02)	0.01	(0.02)	-0.02	(0.02)	-0.01	(0.02)	-0.02	(0.02)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	0.15***	(0.04)	0.09**	(0.04)	0.15***	(0.04)	0.09**	(0.04)	0.12***	(0.04)	0.02	(0.04)
<i>Daily TV/ video consumption</i>												
=1 if more than 3 hours tv/ videos	-0.02	(0.03)	-0.15***	(0.03)	-0.02	(0.03)	-0.01	(0.03)	-0.07**	(0.03)	-0.05	(0.03)
<i>How often mother reads to the child</i>												
=1 if at least several times a week	0.16***	(0.06)	0.05	(0.06)	0.16***	(0.06)	-0.14***	(0.04)	-0.23***	(0.04)	-0.17***	(0.04)
Health and Health Related Behaviour												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.02	(0.03)	-0.01	(0.03)	0.02	(0.03)	-0.01	(0.03)	0.01	(0.03)	-0.06**	(0.03)
<i>Maternal mental health</i>												
=1 if high distress	-0.09	(0.07)	-0.04	(0.08)	-0.09	(0.07)	-0.10	(0.08)	-0.11	(0.07)	0.02	(0.08)
<i>Does mother currently smoke</i>												
=1 if currently smokes	0.03	(0.03)	-0.02	(0.03)	0.03	(0.03)	-0.02	(0.03)	-0.11***	(0.03)	-0.09***	(0.03)
<i>How often mother drinks alcohol</i>												
=1 if at least 3 times a week	0.06**	(0.03)	0.03	(0.03)	0.06**	(0.03)	0.03	(0.03)	0.03	(0.03)	0.02	(0.03)
Other												
<i>Housing tenure</i>												
=1 if council rented	-0.13***	(0.05)	-0.14***	(0.05)	-0.13***	(0.05)	-0.08	(0.05)	-0.08	(0.05)	-0.08	(0.05)
=1 if rented (housing association or private)/ other	-0.02	(0.04)	0.00	(0.04)	-0.02	(0.04)	-0.00	(0.04)	-0.02	(0.04)	0.01	(0.04)
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	0.16***	(0.06)	0.10	(0.06)	0.16***	(0.06)	0.08	(0.06)	0.10*	(0.05)	0.14**	(0.06)
<i>Maternal grandfathers' SES when respondent was aged 14</i>												
=1 if was not working	-0.09*	(0.05)	-0.16***	(0.05)	-0.09*	(0.05)	-0.06	(0.05)	-0.06	(0.05)	-0.03	(0.05)
=1 if managerial/ professional occupation	0.09***	(0.03)	0.02	(0.03)	0.09***	(0.03)	0.04	(0.03)	0.10***	(0.03)	0.01	(0.03)
=1 if technical, semi-routine or routine occupation	-0.02	(0.03)	-0.03	(0.03)	-0.02	(0.03)	-0.05*	(0.03)	-0.02	(0.03)	-0.05*	(0.03)
=1 if can't remember or father died	-0.01	(0.05)	-0.08	(0.05)	-0.01	(0.05)	-0.08	(0.05)	0.02	(0.05)	0.05	(0.05)
constant	-4.52***	(0.35)	-4.76***	(0.37)	-4.52***	(0.35)	-4.74***	(0.44)	-5.92***	(0.42)	-6.29***	(0.44)
σ_ϵ	0.91***	(0.01)	0.96***	(0.01)	0.91***	(0.01)	0.96***	(0.01)	0.91***	(0.01)	0.95***	(0.01)
N	7322.00		7322.00		7322.00		7047.00		7047.00		7047.00	
$\chi^2 (Prob > \chi^2)$	1584.86	(0.00)	666.91	(0.00)	1584.86	(0.00)	633.27	(0.00)	1495.12	(0.00)	823.74	(0.00)

Note: Own calculations based on MCS. BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation. * p<0.10, ** p<0.05, *** p<0.01. Standard errors in parentheses.

Table A.3.4: ML Estimates: BAS, NFER and # Hospital Admissions (Eq. 1, LP)

	Age 5						Age 7					
	BAS NV		BAS PC		BAS PS		BAS PC		BAS WR		NFER Math	
Child Health ($t - 1$)												
number of hospital admissions	-0.02	(0.03)	-0.06**	(0.03)	-0.02	(0.03)	-0.01	(0.04)	-0.06	(0.04)	0.03	(0.04)
Standard Background Controls												
<i>Income</i>												
log of permanent family income (weekly, imp.)	0.21***	(0.08)	0.04	(0.08)	0.21***	(0.08)	0.27***	(0.07)	0.02	(0.07)	0.13**	(0.07)
<i>Maternal education</i>												
=1 if NVQ level 1 or 2	-0.12*	(0.07)	-0.12*	(0.07)	-0.12*	(0.07)	-0.14**	(0.07)	-0.18***	(0.06)	-0.20***	(0.07)
=1 if NVQ level 3	-0.06	(0.08)	-0.00	(0.09)	-0.06	(0.08)	0.11	(0.08)	-0.02	(0.07)	-0.02	(0.08)
=1 if overseas qual. only	-0.34**	(0.17)	-0.15	(0.17)	-0.34**	(0.17)	-0.16	(0.17)	-0.17	(0.17)	-0.21	(0.18)
=1 if none of these	-0.09	(0.10)	-0.15	(0.10)	-0.09	(0.10)	-0.04	(0.10)	-0.32***	(0.09)	-0.20**	(0.10)
<i>Mother's age at birth</i>												
=1 if less than 25 years	-0.20*	(0.10)	-0.03	(0.10)	-0.20*	(0.10)	0.10	(0.10)	-0.16*	(0.09)	0.02	(0.10)
=1 if 25 to 29 years	0.01	(0.09)	-0.05	(0.10)	0.01	(0.09)	0.08	(0.09)	-0.15*	(0.09)	-0.01	(0.09)
=1 if 30 to 34 years	0.02	(0.09)	-0.07	(0.10)	0.02	(0.09)	0.06	(0.09)	0.01	(0.09)	0.03	(0.09)
<i>Child demography</i>												
=1 if female	-0.03	(0.05)	0.15***	(0.05)	-0.03	(0.05)	0.03	(0.05)	0.09*	(0.05)	-0.11**	(0.05)
age (years)	0.62***	(0.10)	0.58***	(0.10)	0.62***	(0.10)	0.39***	(0.10)	0.52***	(0.10)	0.38***	(0.10)
=1 if ethnicity is non-white	-0.20**	(0.10)	-0.14	(0.10)	-0.20**	(0.10)	-0.10	(0.09)	0.23***	(0.09)	0.10	(0.09)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	-0.05	(0.10)	-0.21**	(0.10)	-0.05	(0.10)	-0.23**	(0.10)	-0.07	(0.09)	-0.13	(0.10)
<i>Size of household</i>												
log of hh size incl. cm	-0.25***	(0.10)	-0.15	(0.10)	-0.25***	(0.10)	-0.02	(0.10)	-0.11	(0.10)	-0.24**	(0.10)
<i>Number of older siblings</i>												
=1 if no older siblings	0.18***	(0.07)	-0.01	(0.07)	0.18***	(0.07)	-0.02	(0.06)	0.11*	(0.06)	-0.08	(0.06)
=1 if two or more older siblings	-0.15*	(0.08)	-0.02	(0.08)	-0.15*	(0.08)	-0.10	(0.08)	-0.14*	(0.07)	-0.09	(0.08)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	0.07	(0.18)	0.10	(0.19)	0.07	(0.18)	0.16	(0.15)	-0.01	(0.15)	0.02	(0.15)
<i>Country where interview took place</i>												
=1 if wales	-0.28	(0.34)	-0.10	(0.35)	-0.28	(0.34)	0.44	(0.28)	-0.09	(0.27)	0.05	(0.28)
=1 if nireland	2.44***	(0.65)	3.37***	(0.67)	2.44***	(0.65)	1.06	(0.96)	-0.20	(0.92)	0.72	(0.96)
=1 if scotland	-0.82*	(0.42)	0.17	(0.43)	-0.82*	(0.42)	0.15	(0.35)	0.23	(0.33)	0.32	(0.35)
Time and Care												
<i>Time mother spends with child</i>												
=1 if at least just enough	0.06	(0.06)	0.05	(0.06)	0.06	(0.06)	0.05	(0.05)	0.04	(0.05)	0.00	(0.05)
<i>Childcare</i>												
=1 if formal childcare	-0.22*	(0.12)	-0.05	(0.12)	-0.22*	(0.12)	-0.10	(0.11)	-0.18*	(0.10)	-0.08	(0.11)
=1 if informal/ other childcare	-0.21**	(0.09)	-0.11	(0.09)	-0.21**	(0.09)	-0.00	(0.08)	-0.19**	(0.08)	-0.10	(0.08)
=1 if grandparent care	-0.01	(0.06)	0.01	(0.06)	-0.01	(0.06)	-0.02	(0.06)	0.07	(0.06)	-0.01	(0.06)
<i>Maternal employment ($t - 1$)</i>												
=1 if working part-time	0.12*	(0.06)	-0.00	(0.07)	0.12*	(0.06)	0.06	(0.06)	0.15**	(0.06)	0.14**	(0.06)
=1 if working full-time	0.05	(0.14)	0.04	(0.14)	0.05	(0.14)	0.02	(0.12)	0.07	(0.11)	0.09	(0.12)
<i>How long mother breastfed child</i>												

continued on next page

Table A.3.4 – continued from previous page												
	Age 5						Age 7					
	BAS NV		BAS PC		BAS PS		BAS PC		BAS WR		NFER Math	
=1 if at least 6 months	0.05	(0.08)	0.02	(0.09)	0.05	(0.08)	0.00	(0.08)	-0.02	(0.08)	0.03	(0.08)
<i>If child is naughty...</i>												
=1 if mother smacks child	-0.14	(0.20)	-0.32	(0.20)	-0.14	(0.20)	-0.18	(0.22)	0.26	(0.21)	-0.00	(0.22)
=1 if mother tells child off	0.00	(0.05)	-0.05	(0.05)	0.00	(0.05)	-0.05	(0.05)	-0.10**	(0.05)	-0.08	(0.05)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	0.10	(0.08)	0.15*	(0.08)	0.10	(0.08)	0.19**	(0.08)	0.06	(0.08)	0.12	(0.08)
<i>Daily TV/ video consumption</i>												
=1 if more than 3 hours tv/ videos	0.01	(0.07)	0.07	(0.07)	0.01	(0.07)	-0.01	(0.06)	-0.05	(0.06)	0.03	(0.07)
<i>How often mother reads to the child</i>												
=1 if at least several times a week	0.19*	(0.11)	0.06	(0.11)	0.19*	(0.11)	-0.06	(0.08)	-0.17**	(0.08)	-0.15*	(0.08)
Health and Health Related Behaviour												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.01	(0.06)	-0.05	(0.06)	0.01	(0.06)	0.02	(0.05)	0.02	(0.05)	0.04	(0.06)
<i>Maternal mental health</i>												
=1 if high distress	0.12	(0.11)	0.06	(0.11)	0.12	(0.11)	-0.21**	(0.10)	0.02	(0.10)	-0.09	(0.11)
<i>Does mother currently smoke</i>												
=1 if currently smokes	-0.04	(0.05)	-0.11**	(0.05)	-0.04	(0.05)	-0.11**	(0.05)	-0.17***	(0.05)	-0.10*	(0.05)
<i>How often mother drinks alcohol</i>												
=1 if at least 3 times a week	0.08	(0.08)	-0.07	(0.08)	0.08	(0.08)	0.04	(0.07)	0.09	(0.07)	0.03	(0.07)
Other												
<i>Housing tenure</i>												
=1 if council rented	0.02	(0.08)	-0.26***	(0.09)	0.02	(0.08)	-0.01	(0.08)	-0.09	(0.08)	-0.07	(0.08)
=1 if rented (housing association or private)/ other	0.11	(0.07)	-0.28***	(0.08)	0.11	(0.07)	-0.02	(0.07)	-0.08	(0.07)	0.03	(0.07)
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	0.11	(0.11)	0.12	(0.11)	0.11	(0.11)	0.13	(0.10)	-0.01	(0.09)	0.28***	(0.10)
<i>Maternal grandfathers' SES when respondent was aged 14</i>												
=1 if was not working	-0.20**	(0.09)	-0.06	(0.09)	-0.20**	(0.09)	-0.04	(0.09)	-0.08	(0.08)	-0.06	(0.09)
=1 if managerial/ professional occupation	0.05	(0.08)	0.07	(0.09)	0.05	(0.08)	0.04	(0.08)	0.17**	(0.08)	-0.03	(0.08)
=1 if technical, semi-routine or routine occupation	-0.08	(0.06)	-0.03	(0.07)	-0.08	(0.06)	-0.06	(0.06)	0.02	(0.06)	-0.12*	(0.06)
=1 if can't remember or father died	0.00	(0.09)	0.09	(0.10)	0.00	(0.09)	-0.05	(0.10)	-0.07	(0.09)	0.06	(0.10)
constant	-4.38***	(0.73)	-3.09***	(0.75)	-4.38***	(0.73)	-4.57***	(0.86)	-3.33***	(0.83)	-3.16***	(0.87)
σ_ϵ	0.92***	(0.02)	0.94***	(0.02)	0.92***	(0.02)	0.95***	(0.02)	0.91***	(0.02)	0.95***	(0.02)
N	1422.00		1422.00		1422.00		1568.00		1568.00		1568.00	
$\chi^2 (Prob > \chi^2)$	275.75	(0.00)	182.90	(0.00)	275.75	(0.00)	183.21	(0.00)	326.55	(0.00)	160.55	(0.00)

Note: Own calculations based on MCS. BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation. * p<0.10, ** p<0.05, *** p<0.01. Standard errors in parentheses.

Table A.3.5: ML Estimates: BAS, NFER and # Hospital Admissions (Eq. 1, TP)

	Age 5						Age 7					
	BAS NV		BAS PC		BAS PS		BAS PC		BAS WR		NFER Math	
Child Health ($t - 1$)												
number of hospital admissions	0.00	(0.02)	-0.04**	(0.02)	0.00	(0.02)	-0.08***	(0.02)	-0.03*	(0.02)	-0.06***	(0.02)
Standard Background Controls												
<i>Income</i>												
log of permanent family income (weekly, imp.)	0.16***	(0.03)	0.16***	(0.03)	0.16***	(0.03)	0.23***	(0.03)	0.35***	(0.03)	0.36***	(0.03)
<i>Maternal education</i>												
=1 if NVQ level 1 or 2	-0.18***	(0.03)	-0.08***	(0.03)	-0.18***	(0.03)	-0.10***	(0.03)	-0.14***	(0.03)	-0.11***	(0.03)
=1 if NVQ level 3	-0.13***	(0.03)	-0.09**	(0.03)	-0.13***	(0.03)	-0.07**	(0.03)	-0.07**	(0.03)	-0.06*	(0.03)
=1 if overseas qual. only	-0.30***	(0.09)	-0.01	(0.10)	-0.30***	(0.09)	-0.21**	(0.10)	-0.22**	(0.09)	-0.03	(0.10)
=1 if none of these	-0.37***	(0.05)	-0.10*	(0.06)	-0.37***	(0.05)	-0.21***	(0.06)	-0.23***	(0.06)	-0.20***	(0.06)
<i>Mother's age at birth</i>												
=1 if less than 25 years	-0.30***	(0.04)	-0.02	(0.05)	-0.30***	(0.04)	-0.01	(0.05)	-0.15***	(0.04)	0.02	(0.05)
=1 if 25 to 29 years	-0.09***	(0.03)	0.01	(0.04)	-0.09***	(0.03)	0.01	(0.04)	-0.02	(0.04)	0.05	(0.04)
=1 if 30 to 34 years	-0.02	(0.03)	0.02	(0.03)	-0.02	(0.03)	0.03	(0.03)	0.01	(0.03)	0.05	(0.03)
<i>Child demography</i>												
=1 if female	0.06***	(0.02)	0.13***	(0.02)	0.06***	(0.02)	0.05**	(0.02)	0.13***	(0.02)	-0.07***	(0.02)
age (years)	0.70***	(0.05)	0.75***	(0.05)	0.70***	(0.05)	0.46***	(0.05)	0.55***	(0.05)	0.57***	(0.05)
=1 if ethnicity is non-white	-0.42***	(0.05)	-0.03	(0.05)	-0.42***	(0.05)	-0.10*	(0.05)	0.25***	(0.05)	-0.01	(0.05)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	-0.08*	(0.05)	-0.26***	(0.05)	-0.08*	(0.05)	-0.28***	(0.05)	-0.17***	(0.05)	-0.25***	(0.05)
<i>Size of household</i>												
log of hh size incl. cm	-0.27***	(0.07)	-0.19***	(0.07)	-0.27***	(0.07)	-0.08	(0.07)	-0.14**	(0.07)	-0.05	(0.07)
<i>Number of older siblings</i>												
=1 if no older siblings	0.20***	(0.03)	-0.01	(0.03)	0.20***	(0.03)	0.05*	(0.03)	0.13***	(0.03)	0.06**	(0.03)
=1 if two or more older siblings	-0.17***	(0.04)	-0.03	(0.04)	-0.17***	(0.04)	-0.07*	(0.04)	-0.20***	(0.04)	-0.09**	(0.04)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	-0.03	(0.10)	0.01	(0.10)	-0.03	(0.10)	0.14	(0.10)	0.05	(0.09)	0.05	(0.09)
<i>Country where interview took place</i>												
=1 if wales	0.11	(0.11)	0.13	(0.12)	0.11	(0.11)	0.21*	(0.12)	0.10	(0.11)	0.25**	(0.12)
=1 if nireland	0.21	(0.28)	0.47	(0.29)	0.21	(0.28)	0.61**	(0.28)	0.75***	(0.26)	0.63**	(0.28)
=1 if scotland	0.07	(0.14)	0.11	(0.15)	0.07	(0.14)	0.22	(0.15)	-0.27**	(0.14)	0.16	(0.14)
Time and Care												
<i>Time mother spends with child</i>												
=1 if at least just enough	-0.02	(0.02)	-0.01	(0.03)	-0.02	(0.02)	0.00	(0.03)	0.05**	(0.02)	0.06**	(0.03)
<i>Childcare</i>												
=1 if formal childcare	-0.08	(0.05)	0.02	(0.05)	-0.08	(0.05)	0.07	(0.05)	-0.03	(0.05)	0.04	(0.05)
=1 if informal/ other childcare	-0.07	(0.04)	-0.01	(0.05)	-0.07	(0.04)	-0.02	(0.04)	-0.06	(0.04)	-0.07*	(0.04)
=1 if grandparent care	0.01	(0.03)	-0.01	(0.03)	0.01	(0.03)	-0.04	(0.03)	0.01	(0.03)	0.04	(0.03)
<i>Maternal employment ($t - 1$)</i>												
=1 if working part-time	0.01	(0.03)	-0.05*	(0.03)	0.01	(0.03)	-0.04	(0.03)	0.02	(0.03)	-0.03	(0.03)
=1 if working full-time	-0.02	(0.05)	0.02	(0.06)	-0.02	(0.05)	0.01	(0.06)	-0.10*	(0.05)	-0.05	(0.06)
<i>How long mother breastfed child</i>												

continued on next page

Table A.3.5 – continued from previous page

	Age 5						Age 7					
	BAS NV		BAS PC		BAS PS		BAS PC		BAS WR		NFER Math	
=1 if at least 6 months	0.12***	(0.03)	0.02	(0.03)	0.12***	(0.03)	0.11***	(0.03)	0.09***	(0.03)	0.11***	(0.03)
<i>If child is naughty...</i>												
=1 if mother smacks child	0.00	(0.09)	0.02	(0.10)	0.00	(0.09)	-0.03	(0.13)	-0.05	(0.12)	-0.16	(0.13)
=1 if mother tells child off	0.01	(0.02)	-0.02	(0.02)	0.01	(0.02)	-0.02	(0.02)	-0.01	(0.02)	-0.02	(0.02)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	0.15***	(0.04)	0.09**	(0.04)	0.15***	(0.04)	0.09**	(0.04)	0.12***	(0.04)	0.02	(0.04)
<i>Daily TV/ video consumption</i>												
=1 if more than 3 hours tv/ videos	-0.01	(0.03)	-0.15***	(0.03)	-0.01	(0.03)	-0.01	(0.03)	-0.07**	(0.03)	-0.05	(0.03)
<i>How often mother reads to the child</i>												
=1 if at least several times a week	0.16***	(0.06)	0.04	(0.06)	0.16***	(0.06)	-0.14***	(0.04)	-0.23***	(0.04)	-0.17***	(0.04)
Health and Health Related Behaviour												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.02	(0.03)	-0.01	(0.03)	0.02	(0.03)	-0.02	(0.03)	0.00	(0.03)	-0.07***	(0.03)
<i>Maternal mental health</i>												
=1 if high distress	-0.09	(0.07)	-0.04	(0.08)	-0.09	(0.07)	-0.11	(0.08)	-0.12	(0.07)	0.01	(0.08)
<i>Does mother currently smoke</i>												
=1 if currently smokes	0.03	(0.03)	-0.02	(0.03)	0.03	(0.03)	-0.02	(0.03)	-0.11***	(0.03)	-0.09***	(0.03)
<i>How often mother drinks alcohol</i>												
=1 if at least 3 times a week	0.06**	(0.03)	0.03	(0.03)	0.06**	(0.03)	0.03	(0.03)	0.03	(0.03)	0.03	(0.03)
Other												
<i>Housing tenure</i>												
=1 if council rented	-0.13***	(0.05)	-0.14***	(0.05)	-0.13***	(0.05)	-0.08	(0.05)	-0.08	(0.05)	-0.08	(0.05)
=1 if rented (housing association or private)/ other	-0.02	(0.04)	0.00	(0.04)	-0.02	(0.04)	-0.01	(0.04)	-0.02	(0.04)	0.01	(0.04)
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	0.16***	(0.06)	0.10	(0.06)	0.16***	(0.06)	0.08	(0.06)	0.10*	(0.05)	0.15***	(0.06)
<i>Maternal grandfathers' SES when respondent was aged 14</i>												
=1 if was not working	-0.09*	(0.05)	-0.16***	(0.05)	-0.09*	(0.05)	-0.06	(0.05)	-0.06	(0.05)	-0.03	(0.05)
=1 if managerial/ professional occupation	0.09***	(0.03)	0.02	(0.03)	0.09***	(0.03)	0.04	(0.03)	0.10***	(0.03)	0.01	(0.03)
=1 if technical, semi-routine or routine occupation	-0.01	(0.03)	-0.03	(0.03)	-0.01	(0.03)	-0.05*	(0.03)	-0.03	(0.03)	-0.05*	(0.03)
=1 if can't remember or father died	-0.01	(0.05)	-0.08	(0.05)	-0.01	(0.05)	-0.08	(0.05)	0.01	(0.05)	0.04	(0.05)
constant	-4.52***	(0.35)	-4.75***	(0.37)	-4.52***	(0.35)	-4.69***	(0.44)	-5.90***	(0.42)	-6.25***	(0.44)
σ_ϵ	0.91***	(0.01)	0.96***	(0.01)	0.91***	(0.01)	0.96***	(0.01)	0.91***	(0.01)	0.95***	(0.01)
N	7322.00		7322.00		7322.00		7047.00		7047.00		7047.00	
χ^2 ($Prob > \chi^2$)	1581.93	(0.00)	666.14	(0.00)	1581.93	(0.00)	629.65	(0.00)	1483.48	(0.00)	814.64	(0.00)

Note: Own calculations based on MCS. BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses.

Table A.3.6: ML Estimates: BAS, NFER and SDQ HA (Eq. 1, LP)

	Age 5						Age 7					
	BAS NV		BAS PC		BAS PS		BAS PC		BAS WR		NFER Math	
Child Health ($t - 1$)												
hyperactivity/inattention	-0.03**	(0.01)	-0.06***	(0.01)	-0.03**	(0.01)	-0.04***	(0.01)	-0.07***	(0.01)	-0.08***	(0.01)
Standard Background Controls												
<i>Income</i>												
log of permanent family income (weekly, imp.)	0.25***	(0.08)	-0.01	(0.09)	0.25***	(0.08)	0.27***	(0.08)	0.01	(0.07)	0.13*	(0.08)
<i>Maternal education</i>												
=1 if NVQ level 1 or 2	-0.07	(0.08)	-0.10	(0.08)	-0.07	(0.08)	-0.07	(0.07)	-0.09	(0.07)	-0.14*	(0.07)
=1 if NVQ level 3	-0.02	(0.09)	0.06	(0.09)	-0.02	(0.09)	0.15*	(0.08)	-0.02	(0.08)	-0.02	(0.08)
=1 if overseas qual. only	-0.27	(0.19)	-0.09	(0.19)	-0.27	(0.19)	-0.06	(0.20)	-0.15	(0.19)	-0.07	(0.20)
=1 if none of these	-0.06	(0.11)	-0.09	(0.12)	-0.06	(0.11)	0.10	(0.11)	-0.24**	(0.11)	-0.12	(0.11)
<i>Mother's age at birth</i>												
=1 if less than 25 years	-0.22*	(0.12)	0.09	(0.12)	-0.22*	(0.12)	0.19*	(0.11)	-0.18*	(0.11)	0.05	(0.11)
=1 if 25 to 29 years	-0.05	(0.11)	0.07	(0.11)	-0.05	(0.11)	0.17*	(0.10)	-0.17*	(0.10)	0.02	(0.10)
=1 if 30 to 34 years	-0.08	(0.11)	0.08	(0.11)	-0.08	(0.11)	0.15	(0.10)	-0.03	(0.10)	0.10	(0.10)
<i>Child demography</i>												
=1 if female	-0.02	(0.06)	0.09	(0.06)	-0.02	(0.06)	-0.01	(0.06)	0.09	(0.05)	-0.12**	(0.06)
age (years)	0.64***	(0.11)	0.60***	(0.12)	0.64***	(0.11)	0.36***	(0.11)	0.53***	(0.11)	0.37***	(0.11)
=1 if ethnicity is non-white	-0.26**	(0.11)	-0.02	(0.11)	-0.26**	(0.11)	-0.09	(0.11)	0.15	(0.10)	0.08	(0.11)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	0.00	(0.11)	0.02	(0.11)	0.00	(0.11)	-0.17	(0.12)	-0.01	(0.11)	0.04	(0.12)
<i>Size of household</i>												
log of hh size incl. cm	-0.34***	(0.11)	-0.19*	(0.11)	-0.34***	(0.11)	-0.14	(0.11)	-0.19*	(0.11)	-0.24**	(0.11)
<i>Number of older siblings</i>												
=1 if no older siblings	0.18**	(0.07)	-0.04	(0.08)	0.18**	(0.07)	-0.03	(0.07)	0.14**	(0.07)	-0.02	(0.07)
=1 if two or more older siblings	-0.13	(0.09)	-0.01	(0.09)	-0.13	(0.09)	-0.06	(0.09)	-0.13	(0.08)	-0.07	(0.09)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	-0.01	(0.20)	0.09	(0.20)	-0.01	(0.20)	0.22	(0.16)	-0.02	(0.15)	0.07	(0.16)
<i>Country where interview took place</i>												
=1 if wales	-0.37	(0.42)	-0.15	(0.43)	-0.37	(0.42)	0.54	(0.35)	-0.40	(0.33)	-0.30	(0.34)
=1 if nireland	2.43***	(0.65)	3.35***	(0.67)	2.43***	(0.65)	1.19	(0.96)	0.11	(0.91)	0.93	(0.95)
=1 if scotland	-0.94**	(0.46)	0.40	(0.47)	-0.94**	(0.46)	0.24	(0.37)	0.32	(0.35)	0.44	(0.37)
Time and Care												
<i>Time mother spends with child</i>												
=1 if at least just enough	0.07	(0.06)	0.05	(0.07)	0.07	(0.06)	0.06	(0.06)	0.03	(0.06)	0.00	(0.06)
<i>Childcare</i>												
=1 if formal childcare	-0.22*	(0.13)	-0.02	(0.13)	-0.22*	(0.13)	-0.11	(0.11)	-0.13	(0.11)	-0.07	(0.11)
=1 if informal/ other childcare	-0.22**	(0.10)	-0.10	(0.10)	-0.22**	(0.10)	-0.04	(0.09)	-0.13	(0.08)	-0.09	(0.09)
=1 if grandparent care	-0.02	(0.07)	0.00	(0.07)	-0.02	(0.07)	-0.03	(0.07)	0.09	(0.07)	-0.03	(0.07)
<i>Maternal employment ($t - 1$)</i>												
=1 if working part-time	0.12*	(0.07)	-0.05	(0.07)	0.12*	(0.07)	0.03	(0.07)	0.11*	(0.06)	0.11*	(0.07)
=1 if working full-time	0.02	(0.15)	0.03	(0.15)	0.02	(0.15)	0.12	(0.13)	0.15	(0.13)	0.20	(0.13)
<i>How long mother breastfed child</i>												

continued on next page

Table A.3.6 – continued from previous page

	Age 5						Age 7					
	BAS NV		BAS PC		BAS PS		BAS PC		BAS WR		NFER Math	
=1 if at least 6 months	0.08	(0.10)	0.02	(0.10)	0.08	(0.10)	-0.01	(0.09)	-0.03	(0.09)	-0.01	(0.09)
<i>If child is naughty...</i>												
=1 if mother smacks child	-0.16	(0.21)	-0.29	(0.21)	-0.16	(0.21)	-0.21	(0.27)	0.54**	(0.26)	0.05	(0.27)
=1 if mother tells child off	0.09	(0.06)	-0.02	(0.06)	0.09	(0.06)	-0.07	(0.06)	-0.08	(0.05)	-0.01	(0.06)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	0.05	(0.09)	0.10	(0.09)	0.05	(0.09)	0.11	(0.09)	0.01	(0.09)	0.11	(0.09)
<i>Daily TV/ video consumption</i>												
=1 if more than 3 hours tv/ videos	0.04	(0.07)	0.07	(0.07)	0.04	(0.07)	0.02	(0.07)	0.00	(0.07)	0.07	(0.07)
<i>How often mother reads to the child</i>												
=1 if at least several times a week	0.16	(0.12)	0.00	(0.13)	0.16	(0.12)	-0.11	(0.09)	-0.15*	(0.08)	-0.15*	(0.09)
Health and Health Related Behaviour												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.01	(0.07)	-0.08	(0.07)	0.01	(0.07)	-0.00	(0.06)	-0.02	(0.06)	0.02	(0.06)
<i>Maternal mental health</i>												
=1 if high distress	0.21*	(0.12)	0.11	(0.12)	0.21*	(0.12)	-0.08	(0.12)	0.16	(0.11)	-0.01	(0.12)
<i>Does mother currently smoke</i>												
=1 if currently smokes	-0.04	(0.06)	-0.12**	(0.06)	-0.04	(0.06)	-0.12**	(0.06)	-0.14**	(0.06)	-0.05	(0.06)
<i>How often mother drinks alcohol</i>												
=1 if at least 3 times a week	0.08	(0.08)	-0.11	(0.09)	0.08	(0.08)	-0.01	(0.08)	0.05	(0.07)	0.03	(0.08)
Other												
<i>Housing tenure</i>												
=1 if council rented	0.04	(0.09)	-0.30***	(0.10)	0.04	(0.09)	-0.05	(0.09)	-0.00	(0.09)	-0.09	(0.09)
=1 if rented (housing association or private)/ other	0.12	(0.08)	-0.28***	(0.08)	0.12	(0.08)	-0.01	(0.08)	-0.06	(0.07)	0.01	(0.08)
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	0.13	(0.12)	0.10	(0.12)	0.13	(0.12)	0.04	(0.11)	0.02	(0.10)	0.21**	(0.11)
<i>Maternal grandfathers' SES when respondent was aged 14</i>												
=1 if was not working	-0.20**	(0.10)	-0.02	(0.10)	-0.20**	(0.10)	-0.06	(0.10)	-0.04	(0.10)	0.01	(0.10)
=1 if managerial/ professional occupation	0.06	(0.09)	0.05	(0.09)	0.06	(0.09)	0.08	(0.09)	0.15*	(0.08)	-0.07	(0.09)
=1 if technical, semi-routine or routine occupation	-0.04	(0.07)	-0.04	(0.07)	-0.04	(0.07)	-0.06	(0.07)	0.03	(0.06)	-0.10	(0.07)
=1 if can't remember or father died	-0.05	(0.10)	0.10	(0.11)	-0.05	(0.10)	-0.02	(0.11)	-0.10	(0.11)	0.02	(0.11)
constant	-4.53***	(0.81)	-2.59***	(0.84)	-4.53***	(0.81)	-4.00***	(0.97)	-3.08***	(0.93)	-2.90***	(0.97)
σ_ϵ	0.91***	(0.02)	0.93***	(0.02)	0.91***	(0.02)	0.94***	(0.02)	0.90***	(0.02)	0.94***	(0.02)
N	1139.00		1139.00		1139.00		1254.00		1254.00		1254.00	
$\chi^2 (Prob > \chi^2)$	246.48	(0.00)	168.08	(0.00)	246.48	(0.00)	155.42	(0.00)	294.86	(0.00)	166.98	(0.00)

Note: Own calculations based on MCS. BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation. * p<0.10, ** p<0.05, *** p<0.01. Standard errors in parentheses.

Table A.3.7: ML Estimates: BAS, NFER and SDQ HA (Eq. 1, TP)

	Age 5			Age 7		
	BAS NV	BAS PC	BAS PS	BAS PC	BAS WR	NFER Math
Child Health ($t - 1$)						
hyperactivity/inattention	-0.04*** (0.01)	-0.04*** (0.01)	-0.04*** (0.01)	-0.06*** (0.01)	-0.08*** (0.01)	-0.07*** (0.01)
Standard Background Controls						
<i>Income</i>						
log of permanent family income (weekly, imp.)	0.11*** (0.04)	0.16*** (0.04)	0.11*** (0.04)	0.23*** (0.04)	0.33*** (0.04)	0.33*** (0.04)
<i>Maternal education</i>						
=1 if NVQ level 1 or 2	-0.17*** (0.03)	-0.09** (0.03)	-0.17*** (0.03)	-0.07** (0.03)	-0.11*** (0.03)	-0.08** (0.03)
=1 if NVQ level 3	-0.12*** (0.04)	-0.07* (0.04)	-0.12*** (0.04)	-0.04 (0.04)	-0.05 (0.04)	-0.04 (0.04)
=1 if overseas qual. only	-0.38*** (0.11)	-0.09 (0.12)	-0.38*** (0.11)	-0.26** (0.12)	-0.25** (0.11)	-0.02 (0.12)
=1 if none of these	-0.36*** (0.06)	-0.04 (0.07)	-0.36*** (0.06)	-0.20*** (0.07)	-0.16** (0.07)	-0.22*** (0.07)
<i>Mother's age at birth</i>						
=1 if less than 25 years	-0.27*** (0.05)	-0.01 (0.05)	-0.27*** (0.05)	0.01 (0.05)	-0.10** (0.05)	0.07 (0.05)
=1 if 25 to 29 years	-0.06 (0.04)	0.01 (0.04)	-0.06 (0.04)	0.02 (0.04)	-0.01 (0.04)	0.06 (0.04)
=1 if 30 to 34 years	0.00 (0.04)	0.00 (0.04)	0.00 (0.04)	0.02 (0.04)	0.01 (0.04)	0.04 (0.04)
<i>Child demography</i>						
=1 if female	0.05* (0.02)	0.09*** (0.03)	0.05* (0.02)	0.01 (0.03)	0.09*** (0.02)	-0.09*** (0.03)
age (years)	0.68*** (0.05)	0.80*** (0.05)	0.68*** (0.05)	0.45*** (0.05)	0.53*** (0.05)	0.57*** (0.05)
=1 if ethnicity is non-white	-0.38*** (0.06)	-0.01 (0.06)	-0.38*** (0.06)	-0.12* (0.06)	0.24*** (0.06)	-0.00 (0.06)
<i>Child's health endowment</i>						
=1 if birth weight < 2500g	-0.08 (0.06)	-0.25*** (0.06)	-0.08 (0.06)	-0.22*** (0.06)	-0.08 (0.06)	-0.20*** (0.06)
<i>Size of household</i>						
log of hh size incl. cm	-0.32*** (0.08)	-0.22*** (0.08)	-0.32*** (0.08)	-0.12 (0.08)	-0.17** (0.08)	-0.12 (0.08)
<i>Number of older siblings</i>						
=1 if no older siblings	0.19*** (0.03)	-0.01 (0.03)	0.19*** (0.03)	0.05 (0.03)	0.11*** (0.03)	0.06** (0.03)
=1 if two or more older siblings	-0.16*** (0.04)	-0.03 (0.04)	-0.16*** (0.04)	-0.06 (0.04)	-0.18*** (0.04)	-0.05 (0.04)
<i>Respondent's relationship to child</i>						
=1 if natural mother of child	-0.06 (0.11)	0.01 (0.11)	-0.06 (0.11)	0.16 (0.11)	0.09 (0.10)	0.13 (0.11)
<i>Country where interview took place</i>						
=1 if wales	0.09 (0.13)	0.06 (0.13)	0.09 (0.13)	0.24* (0.13)	-0.02 (0.12)	0.22* (0.13)
=1 if nireland	0.12 (0.32)	0.64* (0.34)	0.12 (0.32)	0.69** (0.32)	0.87*** (0.30)	0.71** (0.32)
=1 if scotland	0.10 (0.16)	0.03 (0.16)	0.10 (0.16)	0.23 (0.16)	-0.18 (0.15)	0.22 (0.16)
Time and Care						
<i>Time mother spends with child</i>						
=1 if at least just enough	-0.01 (0.03)	-0.00 (0.03)	-0.01 (0.03)	-0.02 (0.03)	0.02 (0.03)	0.03 (0.03)
<i>Childcare</i>						
=1 if formal childcare	-0.04 (0.05)	0.02 (0.06)	-0.04 (0.05)	0.06 (0.06)	-0.05 (0.05)	0.03 (0.06)
=1 if informal/ other childcare	-0.06 (0.05)	0.00 (0.05)	-0.06 (0.05)	-0.03 (0.05)	-0.05 (0.04)	-0.04 (0.05)
=1 if grandparent care	-0.01 (0.03)	-0.01 (0.03)	-0.01 (0.03)	-0.05 (0.03)	-0.02 (0.03)	0.02 (0.03)
<i>Maternal employment ($t - 1$)</i>						
=1 if working part-time	0.01 (0.03)	-0.03 (0.03)	0.01 (0.03)	-0.05 (0.03)	0.03 (0.03)	-0.03 (0.03)
=1 if working full-time	0.00 (0.06)	0.01 (0.06)	0.00 (0.06)	-0.02 (0.06)	-0.09 (0.06)	-0.07 (0.06)
<i>How long mother breastfed child</i>						

continued on next page

Table A.3.7 – continued from previous page												
	Age 5						Age 7					
	BAS NV		BAS PC		BAS PS		BAS PC		BAS WR		NFER Math	
=1 if at least 6 months	0.12***	(0.03)	0.01	(0.03)	0.12***	(0.03)	0.09***	(0.03)	0.06*	(0.03)	0.07**	(0.03)
<i>If child is naughty...</i>												
=1 if mother smacks child	0.08	(0.11)	0.09	(0.11)	0.08	(0.11)	0.08	(0.14)	0.10	(0.14)	-0.08	(0.14)
=1 if mother tells child off	0.04*	(0.03)	-0.01	(0.03)	0.04*	(0.03)	0.04	(0.03)	0.06**	(0.03)	0.05**	(0.03)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	0.17***	(0.05)	0.08*	(0.05)	0.17***	(0.05)	0.02	(0.05)	0.08	(0.05)	-0.05	(0.05)
<i>Daily TV/ video consumption</i>												
=1 if more than 3 hours tv/ videos	-0.02	(0.04)	-0.16***	(0.04)	-0.02	(0.04)	-0.03	(0.04)	-0.07*	(0.04)	-0.05	(0.04)
<i>How often mother reads to the child</i>												
=1 if at least several times a week	0.16***	(0.06)	-0.02	(0.07)	0.16***	(0.06)	-0.12***	(0.05)	-0.24***	(0.04)	-0.20***	(0.05)
Health and Health Related Behaviour												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.02	(0.03)	-0.00	(0.03)	0.02	(0.03)	-0.01	(0.03)	0.01	(0.03)	-0.07**	(0.03)
<i>Maternal mental health</i>												
=1 if high distress	-0.07	(0.09)	0.01	(0.09)	-0.07	(0.09)	-0.08	(0.09)	0.00	(0.09)	0.05	(0.09)
<i>Does mother currently smoke</i>												
=1 if currently smokes	0.02	(0.03)	-0.03	(0.03)	0.02	(0.03)	0.00	(0.03)	-0.10***	(0.03)	-0.10***	(0.03)
<i>How often mother drinks alcohol</i>												
=1 if at least 3 times a week	0.07**	(0.03)	0.02	(0.03)	0.07**	(0.03)	0.04	(0.03)	0.03	(0.03)	0.03	(0.03)
Other												
<i>Housing tenure</i>												
=1 if council rented	-0.15***	(0.05)	-0.11**	(0.06)	-0.15***	(0.05)	0.01	(0.06)	-0.11**	(0.05)	-0.06	(0.06)
=1 if rented (housing association or private)/ other	-0.00	(0.04)	0.03	(0.05)	-0.00	(0.04)	0.02	(0.05)	-0.03	(0.04)	0.05	(0.05)
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	0.15**	(0.07)	0.15**	(0.07)	0.15**	(0.07)	0.09	(0.06)	0.10	(0.06)	0.16**	(0.06)
<i>Maternal grandfathers' SES when respondent was aged 14</i>												
=1 if was not working	-0.06	(0.06)	-0.10*	(0.06)	-0.06	(0.06)	-0.07	(0.06)	-0.01	(0.06)	-0.01	(0.06)
=1 if managerial/ professional occupation	0.09***	(0.03)	0.01	(0.04)	0.09***	(0.03)	0.03	(0.04)	0.12***	(0.03)	0.01	(0.04)
=1 if technical, semi-routine or routine occupation	0.02	(0.03)	-0.00	(0.03)	0.02	(0.03)	-0.04	(0.03)	0.04	(0.03)	-0.02	(0.03)
=1 if can't remember or father died	-0.00	(0.06)	-0.06	(0.06)	-0.00	(0.06)	-0.05	(0.06)	0.03	(0.06)	0.11*	(0.06)
constant	-4.01***	(0.40)	-4.80***	(0.42)	-4.01***	(0.40)	-4.44***	(0.49)	-5.44***	(0.46)	-5.80***	(0.49)
σ_ϵ	0.91***	(0.01)	0.96***	(0.01)	0.91***	(0.01)	0.95***	(0.01)	0.89***	(0.01)	0.94***	(0.01)
N	5962.00		5962.00		5962.00		5733.00		5733.00		5733.00	
χ^2 ($Prob > \chi^2$)	1226.27	(0.00)	574.88	(0.00)	1226.27	(0.00)	592.05	(0.00)	1430.95	(0.00)	780.48	(0.00)

Note: Own calculations based on MCS. BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses.

Table A.3.8: ML Estimates: SDQ and # Chronic Conditions (Eq. 1, LP)

	Age 5								Age 7							
	ES	CP	PR	PB	ES	CP	PR	PB	ES	CP	PR	PB				
Child Health ($t - 1$)																
number of health problems	0.11**	(0.05)	0.10**	(0.05)	0.05	(0.05)	0.11**	(0.05)	0.05	(0.05)	0.00	(0.04)	0.09**	(0.05)	0.02	(0.05)
Standard Background Controls																
<i>Income</i>																
log of permanent family income (weekly, imp.)	-0.09	(0.08)	-0.08	(0.07)	-0.12	(0.08)	-0.06	(0.08)	-0.06	(0.07)	-0.03	(0.06)	-0.09	(0.07)	-0.08	(0.07)
<i>Maternal education</i>																
=1 if NVQ level 1 or 2	0.07	(0.07)	0.17**	(0.07)	0.21***	(0.07)	-0.13*	(0.08)	0.11	(0.07)	0.13**	(0.06)	0.13*	(0.07)	-0.09	(0.07)
=1 if NVQ level 3	0.08	(0.09)	-0.07	(0.08)	0.04	(0.08)	0.07	(0.09)	-0.02	(0.08)	0.08	(0.07)	0.02	(0.08)	0.05	(0.08)
=1 if overseas qual. only	0.04	(0.17)	0.25	(0.16)	0.06	(0.17)	-0.03	(0.18)	0.27	(0.17)	0.24	(0.16)	0.36**	(0.17)	-0.19	(0.17)
=1 if none of these	0.21**	(0.10)	0.32***	(0.10)	0.14	(0.10)	-0.24**	(0.11)	0.17*	(0.10)	0.34***	(0.09)	0.29***	(0.10)	-0.14	(0.10)
<i>Mother's age at birth</i>																
=1 if less than 25 years	-0.12	(0.10)	0.23**	(0.10)	-0.02	(0.10)	-0.17	(0.11)	-0.13	(0.10)	0.26***	(0.09)	-0.08	(0.10)	0.05	(0.10)
=1 if 25 to 29 years	-0.00	(0.10)	0.24***	(0.09)	-0.04	(0.09)	-0.00	(0.10)	-0.02	(0.09)	0.18**	(0.08)	-0.07	(0.09)	0.09	(0.09)
=1 if 30 to 34 years	-0.05	(0.10)	0.07	(0.09)	-0.02	(0.10)	-0.11	(0.10)	-0.05	(0.09)	0.08	(0.08)	-0.06	(0.09)	0.03	(0.09)
<i>Child demography</i>																
=1 if female	0.21***	(0.05)	-0.11**	(0.05)	-0.11**	(0.05)	0.20***	(0.05)	0.12**	(0.05)	-0.15***	(0.05)	-0.08	(0.05)	0.33***	(0.05)
age (years)	0.02	(0.10)	-0.06	(0.10)	0.03	(0.10)	0.16	(0.11)	-0.01	(0.10)	-0.20**	(0.09)	-0.05	(0.10)	0.14	(0.10)
=1 if ethnicity is non-white	0.03	(0.10)	0.04	(0.09)	0.21**	(0.10)	0.01	(0.10)	-0.04	(0.09)	-0.07	(0.09)	0.11	(0.09)	0.09	(0.09)
<i>Child's health endowment</i>																
=1 if birth weight < 2500g	0.02	(0.10)	-0.07	(0.09)	0.06	(0.10)	0.13	(0.10)	0.02	(0.10)	0.29***	(0.09)	0.15	(0.10)	-0.04	(0.10)
<i>Size of household</i>																
log of hh size incl. cm	0.15	(0.10)	0.18**	(0.09)	-0.05	(0.10)	-0.07	(0.10)	0.17*	(0.10)	0.21**	(0.09)	-0.09	(0.10)	-0.29***	(0.10)
<i>Number of older siblings</i>																
=1 if no older siblings	0.12*	(0.07)	-0.08	(0.06)	0.09	(0.07)	0.07	(0.07)	0.14**	(0.06)	-0.02	(0.06)	0.22***	(0.06)	-0.01	(0.06)
=1 if two or more older siblings	-0.03	(0.08)	-0.04	(0.08)	-0.03	(0.08)	-0.05	(0.09)	-0.12	(0.08)	-0.06	(0.07)	0.07	(0.08)	0.09	(0.08)
<i>Respondent's relationship to child</i>																
=1 if natural mother of child	0.01	(0.19)	0.25	(0.17)	0.06	(0.19)	0.32*	(0.19)	0.08	(0.15)	-0.02	(0.14)	-0.01	(0.15)	0.27*	(0.15)
<i>Country where interview took place</i>																
=1 if wales	-0.00	(0.34)	0.14	(0.32)	-0.05	(0.34)	-0.09	(0.35)	0.50*	(0.28)	-0.05	(0.26)	0.43	(0.28)	-0.09	(0.28)
=1 if nireland	0.01	(0.67)	1.55**	(0.62)	0.75	(0.67)	-0.60	(0.68)	1.64*	(0.95)	2.97***	(0.88)	-0.32	(0.95)	-1.64*	(0.96)
=1 if scotland	0.11	(0.43)	0.01	(0.40)	0.94**	(0.43)	-0.55	(0.44)	-0.21	(0.34)	0.15	(0.32)	0.23	(0.34)	-0.36	(0.35)
Time and Care																
<i>Time mother spends with child</i>																
=1 if at least just enough	-0.11*	(0.06)	-0.01	(0.05)	-0.08	(0.06)	-0.02	(0.06)	-0.11**	(0.05)	-0.07	(0.05)	-0.09*	(0.05)	0.02	(0.05)
<i>Childcare</i>																
=1 if formal childcare	-0.09	(0.12)	0.30***	(0.11)	0.06	(0.12)	-0.16	(0.12)	0.33***	(0.10)	0.14	(0.10)	0.30***	(0.10)	-0.06	(0.11)
=1 if informal/ other childcare	-0.10	(0.09)	0.12	(0.08)	-0.10	(0.09)	0.06	(0.09)	0.09	(0.08)	0.12	(0.07)	0.04	(0.08)	-0.08	(0.08)
=1 if grandparent care	0.11*	(0.06)	0.02	(0.06)	0.01	(0.06)	0.07	(0.06)	0.07	(0.06)	-0.03	(0.06)	0.03	(0.06)	0.02	(0.06)
<i>Maternal employment ($t - 1$)</i>																
=1 if working part-time	-0.08	(0.07)	0.02	(0.06)	-0.07	(0.07)	-0.08	(0.07)	-0.17***	(0.06)	-0.02	(0.06)	-0.09	(0.06)	0.08	(0.06)
=1 if working full-time	-0.04	(0.14)	-0.01	(0.13)	0.01	(0.14)	-0.22	(0.14)	-0.10	(0.12)	0.02	(0.11)	0.05	(0.12)	0.07	(0.12)
<i>How long mother breastfed child</i>																

continued on next page

Table A.3.8 – continued from previous page

	Age 5								Age 7							
	ES		CP		PR		PB		ES		CP		PR		PB	
=1 if at least 6 months	0.14	(0.09)	-0.04	(0.08)	0.09	(0.09)	-0.11	(0.09)	0.10	(0.08)	-0.04	(0.07)	0.02	(0.08)	0.04	(0.08)
<i>If child is naughty...</i>																
=1 if mother smacks child	0.05	(0.20)	1.01***	(0.19)	0.26	(0.20)	-0.11	(0.21)	0.36*	(0.22)	1.09***	(0.20)	0.44**	(0.22)	-0.53**	(0.22)
=1 if mother tells child off	0.18***	(0.05)	0.45***	(0.05)	0.02	(0.05)	-0.22***	(0.05)	0.22***	(0.05)	0.62***	(0.05)	0.07	(0.05)	-0.29***	(0.05)
<i>Bedtime on term-time weekdays</i>																
=1 if regular bedtime	-0.08	(0.08)	-0.33***	(0.07)	-0.14*	(0.08)	0.29***	(0.08)	-0.16**	(0.08)	-0.19**	(0.07)	-0.01	(0.08)	0.13*	(0.08)
<i>Daily TV/ video consumption</i>																
=1 if more than 3 hours tv/ videos	0.14**	(0.07)	0.10*	(0.06)	0.02	(0.07)	-0.03	(0.07)	0.03	(0.06)	0.02	(0.06)	0.16**	(0.06)	-0.11*	(0.06)
<i>How often mother reads to the child</i>																
=1 if at least several times a week	-0.17	(0.12)	-0.34***	(0.11)	-0.17	(0.11)	0.25**	(0.12)	0.01	(0.08)	-0.19**	(0.07)	-0.13	(0.08)	0.23***	(0.08)
Health and Health Related Behaviour																
<i>Maternal physical health</i>																
=1 if longstanding illness	0.14**	(0.06)	0.16***	(0.05)	0.12**	(0.06)	-0.00	(0.06)	0.09*	(0.05)	0.10**	(0.05)	0.12**	(0.05)	0.01	(0.06)
<i>Maternal mental health</i>																
=1 if high distress	0.71***	(0.11)	0.52***	(0.10)	0.49***	(0.11)	-0.17	(0.11)	0.74***	(0.10)	0.31***	(0.10)	0.50***	(0.10)	-0.06	(0.10)
<i>Does mother currently smoke</i>																
=1 if currently smokes	-0.01	(0.05)	0.16***	(0.05)	-0.00	(0.05)	0.00	(0.05)	0.00	(0.05)	0.06	(0.05)	0.07	(0.05)	-0.01	(0.05)
<i>How often mother drinks alcohol</i>																
=1 if at least 3 times a week	-0.03	(0.08)	0.06	(0.07)	-0.10	(0.08)	0.06	(0.08)	0.01	(0.07)	0.08	(0.06)	-0.24***	(0.07)	0.07	(0.07)
Other																
<i>Housing tenure</i>																
=1 if council rented	0.13	(0.09)	0.12	(0.08)	0.17**	(0.09)	-0.08	(0.09)	0.16**	(0.08)	0.14*	(0.07)	0.09	(0.08)	-0.07	(0.08)
=1 if rented (housing association or private)/ other	0.04	(0.08)	0.15**	(0.07)	0.16**	(0.08)	-0.01	(0.08)	0.07	(0.07)	0.02	(0.06)	0.10	(0.07)	0.01	(0.07)
<i>Child's fruit consumption</i>																
=1 if cm has at least one portion of fruit per day	-0.17	(0.11)	-0.17*	(0.10)	-0.29***	(0.11)	0.23**	(0.11)	-0.17*	(0.10)	-0.05	(0.09)	-0.11	(0.10)	0.06	(0.10)
<i>Maternal grandfathers' SES when respondent was aged 14</i>																
=1 if was not working	0.21**	(0.09)	0.16*	(0.08)	0.27***	(0.09)	0.04	(0.09)	0.06	(0.09)	0.01	(0.08)	-0.08	(0.09)	-0.02	(0.09)
=1 if managerial/ professional occupation	-0.00	(0.09)	0.06	(0.08)	0.13	(0.08)	-0.02	(0.09)	0.00	(0.08)	0.01	(0.07)	0.05	(0.08)	-0.08	(0.08)
=1 if technical, semi-routine or routine occupation	0.03	(0.07)	0.01	(0.06)	0.07	(0.06)	0.09	(0.07)	-0.03	(0.06)	-0.03	(0.06)	0.04	(0.06)	0.06	(0.06)
=1 if can't remember or father died	0.08	(0.10)	0.07	(0.09)	0.20**	(0.09)	0.14	(0.10)	-0.03	(0.09)	0.01	(0.09)	0.06	(0.09)	-0.02	(0.10)
constant	0.23	(0.75)	0.22	(0.69)	0.83	(0.75)	-1.19	(0.76)	0.10	(0.86)	1.12	(0.80)	0.85	(0.85)	-0.95	(0.86)
σ_ϵ	0.94***	(0.02)	0.87***	(0.02)	0.94***	(0.02)	0.96***	(0.02)	0.94***	(0.02)	0.87***	(0.02)	0.94***	(0.02)	0.95***	(0.02)
N	1422.00		1422.00		1422.00		1422.00		1568.00		1568.00		1568.00		1568.00	
χ^2 ($P_{rob} > \chi^2$)	180.35	(0.00)	466.26	(0.00)	196.14	(0.00)	130.63	(0.00)	214.28	(0.00)	487.40	(0.00)	221.42	(0.00)	180.16	(0.00)

Note: Own calculations based on MCS. BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses.

Table A.3.9: ML Estimates: SDQ and # Chronic Conditions (Eq. 1, TP)

	Age 5				Age 7			
	ES	CP	PR	PB	ES	CP	PR	PB
Child Health ($t - 1$)								
number of health problems	0.11*** (0.03)	0.03 (0.02)	0.11*** (0.03)	-0.00 (0.03)	0.16*** (0.02)	0.08*** (0.02)	0.15*** (0.02)	-0.04** (0.02)
Standard Background Controls								
<i>Income</i>								
log of permanent family income (weekly, imp.)	-0.15*** (0.03)	-0.20*** (0.03)	-0.24*** (0.03)	0.10*** (0.03)	-0.14*** (0.03)	-0.19*** (0.03)	-0.20*** (0.03)	0.08** (0.03)
<i>Maternal education</i>								
=1 if NVQ level 1 or 2	-0.02 (0.03)	0.07** (0.03)	0.02 (0.03)	-0.05* (0.03)	0.00 (0.03)	0.06** (0.03)	-0.01 (0.03)	0.01 (0.03)
=1 if NVQ level 3	-0.07** (0.03)	0.01 (0.03)	0.01 (0.03)	0.00 (0.03)	-0.03 (0.03)	0.02 (0.03)	-0.01 (0.03)	0.02 (0.03)
=1 if overseas qual. only	0.12 (0.10)	0.30*** (0.09)	0.34*** (0.10)	-0.16 (0.10)	0.08 (0.10)	0.19** (0.09)	0.12 (0.10)	-0.15 (0.10)
=1 if none of these	0.11** (0.06)	0.20*** (0.05)	0.17*** (0.06)	0.03 (0.06)	0.02 (0.06)	0.03 (0.06)	-0.11* (0.06)	0.00 (0.06)
<i>Mother's age at birth</i>								
=1 if less than 25 years	0.07 (0.05)	0.19*** (0.04)	0.06 (0.05)	0.09* (0.05)	0.06 (0.05)	0.15*** (0.04)	0.09** (0.05)	0.02 (0.05)
=1 if 25 to 29 years	0.05 (0.04)	0.00 (0.03)	0.01 (0.04)	0.12*** (0.04)	0.05 (0.04)	0.01 (0.03)	-0.02 (0.04)	0.07* (0.04)
=1 if 30 to 34 years	0.04 (0.03)	0.01 (0.03)	-0.02 (0.03)	0.04 (0.03)	0.01 (0.03)	-0.00 (0.03)	-0.03 (0.03)	0.01 (0.03)
<i>Child demography</i>								
=1 if female	0.06** (0.02)	-0.14*** (0.02)	-0.10*** (0.02)	0.27*** (0.02)	0.08*** (0.02)	-0.14*** (0.02)	-0.08*** (0.02)	0.32*** (0.02)
age (years)	-0.05 (0.05)	-0.16*** (0.05)	-0.11** (0.05)	0.23*** (0.05)	-0.02 (0.05)	-0.01 (0.05)	-0.10** (0.05)	0.09* (0.05)
=1 if ethnicity is non-white	0.06 (0.05)	0.05 (0.05)	0.20*** (0.05)	0.03 (0.05)	-0.07 (0.05)	-0.13*** (0.05)	0.19*** (0.05)	0.04 (0.05)
<i>Child's health endowment</i>								
=1 if birth weight < 2500g	0.16*** (0.05)	0.12** (0.05)	0.09* (0.05)	0.02 (0.05)	0.12** (0.05)	0.09* (0.05)	0.18*** (0.05)	-0.05 (0.05)
<i>Size of household</i>								
log of hh size incl. cm	0.16** (0.08)	0.09 (0.07)	-0.08 (0.07)	-0.07 (0.07)	0.22*** (0.07)	0.13** (0.07)	-0.09 (0.07)	-0.12* (0.07)
<i>Number of older siblings</i>								
=1 if no older siblings	0.11*** (0.03)	-0.20*** (0.03)	0.15*** (0.03)	0.07*** (0.03)	0.07*** (0.03)	-0.11*** (0.03)	0.10*** (0.03)	-0.01 (0.03)
=1 if two or more older siblings	-0.09** (0.04)	-0.09** (0.04)	0.07* (0.04)	-0.04 (0.04)	-0.12*** (0.04)	-0.06* (0.03)	0.09** (0.04)	-0.01 (0.04)
<i>Respondent's relationship to child</i>								
=1 if natural mother of child	0.07 (0.10)	0.05 (0.10)	-0.14 (0.10)	0.06 (0.10)	-0.05 (0.10)	0.16* (0.09)	-0.12 (0.09)	0.17* (0.10)
<i>Country where interview took place</i>								
=1 if wales	0.06 (0.12)	0.00 (0.11)	-0.04 (0.12)	-0.04 (0.12)	-0.25** (0.12)	-0.11 (0.11)	-0.12 (0.12)	-0.01 (0.12)
=1 if nireland	0.29 (0.29)	-0.10 (0.27)	-0.14 (0.29)	0.25 (0.29)	-0.07 (0.28)	-0.40 (0.26)	-0.32 (0.28)	0.49* (0.28)
=1 if scotland	0.18 (0.15)	0.10 (0.14)	0.14 (0.15)	-0.11 (0.15)	0.03 (0.15)	0.01 (0.14)	-0.03 (0.14)	-0.11 (0.15)
Time and Care								
<i>Time mother spends with child</i>								
=1 if at least just enough	-0.08*** (0.03)	-0.05** (0.02)	-0.13*** (0.03)	0.04 (0.03)	-0.13*** (0.03)	-0.08*** (0.02)	-0.07*** (0.03)	0.00 (0.03)
<i>Childcare</i>								
=1 if formal childcare	-0.04 (0.05)	-0.03 (0.05)	-0.01 (0.05)	-0.03 (0.05)	-0.01 (0.05)	0.00 (0.05)	-0.09* (0.05)	-0.01 (0.05)
=1 if informal/ other childcare	0.06 (0.05)	0.00 (0.04)	0.04 (0.05)	-0.05 (0.05)	-0.01 (0.04)	0.01 (0.04)	0.02 (0.04)	-0.04 (0.04)
=1 if grandparent care	0.01 (0.03)	-0.01 (0.03)	0.02 (0.03)	0.02 (0.03)	-0.02 (0.03)	-0.02 (0.03)	-0.04 (0.03)	0.02 (0.03)
<i>Maternal employment ($t - 1$)</i>								
=1 if working part-time	-0.09*** (0.03)	0.03 (0.03)	-0.05** (0.03)	0.02 (0.03)	-0.09*** (0.03)	-0.05* (0.03)	-0.09*** (0.03)	0.06** (0.03)
=1 if working full-time	-0.15*** (0.06)	0.04 (0.05)	-0.06 (0.06)	0.06 (0.06)	-0.11** (0.06)	-0.02 (0.05)	-0.11* (0.06)	0.12** (0.06)
<i>How long mother breastfed child</i>								

continued on next page

Table A.3.9 – continued from previous page

	Age 5				Age 7			
	ES	CP	PR	PB	ES	CP	PR	PB
=1 if at least 6 months	-0.00 (0.03)	-0.12*** (0.03)	-0.02 (0.03)	0.05* (0.03)	-0.03 (0.03)	-0.11*** (0.03)	-0.08*** (0.03)	0.01 (0.03)
<i>If child is naughty. . .</i>								
=1 if mother smacks child	0.22** (0.10)	0.75*** (0.09)	0.33*** (0.10)	-0.31*** (0.10)	0.12 (0.13)	0.71*** (0.12)	0.34*** (0.13)	-0.18 (0.13)
=1 if mother tells child off	0.14*** (0.02)	0.52*** (0.02)	0.05* (0.02)	-0.32*** (0.02)	0.21*** (0.02)	0.59*** (0.02)	0.13*** (0.02)	-0.34*** (0.02)
<i>Bedtime on term-time weekdays</i>								
=1 if regular bedtime	-0.18*** (0.04)	-0.29*** (0.04)	-0.22*** (0.04)	0.11** (0.04)	-0.19*** (0.04)	-0.24*** (0.04)	-0.27*** (0.04)	0.10** (0.04)
<i>Daily TV/ video consumption</i>								
=1 if more than 3 hours tv/ videos	0.09** (0.03)	0.11*** (0.03)	0.08** (0.03)	-0.11*** (0.03)	0.13*** (0.03)	0.06* (0.03)	0.09*** (0.03)	-0.06* (0.03)
<i>How often mother reads to the child</i>								
=1 if at least several times a week	-0.16*** (0.06)	-0.23*** (0.05)	-0.15*** (0.06)	0.12** (0.06)	0.06 (0.04)	-0.08** (0.04)	-0.05 (0.04)	0.07* (0.04)
Health and Health Related Behaviour								
<i>Maternal physical health</i>								
=1 if longstanding illness	0.12*** (0.03)	0.05** (0.03)	0.11*** (0.03)	0.05* (0.03)	0.16*** (0.03)	0.07*** (0.03)	0.07*** (0.03)	0.06** (0.03)
<i>Maternal mental health</i>								
=1 if high distress	0.54*** (0.08)	0.55*** (0.07)	0.34*** (0.08)	-0.34*** (0.08)	0.70*** (0.08)	0.53*** (0.07)	0.58*** (0.08)	-0.23*** (0.08)
<i>Does mother currently smoke</i>								
=1 if currently smokes	-0.01 (0.03)	0.14*** (0.03)	0.02 (0.03)	0.00 (0.03)	-0.01 (0.03)	0.14*** (0.03)	0.06** (0.03)	-0.08** (0.03)
<i>How often mother drinks alcohol</i>								
=1 if at least 3 times a week	-0.03 (0.03)	0.05* (0.03)	-0.01 (0.03)	-0.02 (0.03)	-0.05 (0.03)	-0.02 (0.03)	-0.04 (0.03)	-0.01 (0.03)
Other								
<i>Housing tenure</i>								
=1 if council rented	0.08* (0.05)	0.21*** (0.05)	0.09* (0.05)	-0.10** (0.05)	0.08* (0.05)	0.22*** (0.05)	0.08 (0.05)	-0.09* (0.05)
=1 if rented (housing association or private)/ other	-0.06 (0.04)	0.08** (0.04)	-0.02 (0.04)	0.01 (0.04)	0.07* (0.04)	0.11*** (0.04)	0.11** (0.04)	0.02 (0.04)
<i>Child's fruit consumption</i>								
=1 if cm has at least one portion of fruit per day	-0.12* (0.06)	0.02 (0.06)	-0.07 (0.06)	0.12** (0.06)	-0.15*** (0.06)	-0.14*** (0.05)	-0.26*** (0.06)	0.18*** (0.06)
<i>Maternal grandfathers' SES when respondent was aged 14</i>								
=1 if was not working	0.04 (0.05)	0.09* (0.05)	0.11** (0.05)	-0.13** (0.05)	0.09* (0.05)	0.11** (0.05)	0.12** (0.05)	-0.00 (0.05)
=1 if managerial/ professional occupation	0.03 (0.03)	-0.02 (0.03)	-0.06** (0.03)	0.06* (0.03)	0.05 (0.03)	-0.03 (0.03)	0.01 (0.03)	0.02 (0.03)
=1 if technical, semi-routine or routine occupation	0.01 (0.03)	0.02 (0.03)	0.02 (0.03)	0.02 (0.03)	0.02 (0.03)	0.00 (0.03)	0.06** (0.03)	-0.02 (0.03)
=1 if can't remember or father died	-0.02 (0.05)	0.09* (0.05)	-0.01 (0.05)	0.01 (0.05)	-0.01 (0.05)	0.12** (0.05)	-0.03 (0.05)	-0.09* (0.05)
constant	1.19*** (0.38)	2.02*** (0.35)	2.68*** (0.37)	-2.16*** (0.37)	0.89** (0.44)	1.06*** (0.41)	2.71*** (0.44)	-1.46*** (0.44)
σ_ϵ	0.97*** (0.01)	0.90*** (0.01)	0.96*** (0.01)	0.96*** (0.01)	0.96*** (0.01)	0.89*** (0.01)	0.95*** (0.01)	0.96*** (0.01)
N	7322.00	7322.00	7322.00	7322.00	7047.00	7047.00	7047.00	7047.00
$\chi^2 (Prob > \chi^2)$	438.28 (0.00)	1672.97 (0.00)	665.80 (0.00)	608.40 (0.00)	650.22 (0.00)	1835.50 (0.00)	822.84 (0.00)	640.87 (0.00)

Note: Own calculations based on MCS. BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation. * p<0.10, ** p<0.05, *** p<0.01. Standard errors in parentheses.

Table A.3.10: ML Estimates: SDQ and # Hospital Admissions (Eq. 1, LP)

	Age 5								Age 7							
	ES	CP	PR	PB	ES	CP	PR	PB	ES	CP	PR	PB	ES	CP	PR	PB
Child Health ($t - 1$)																
number of hospital admissions	0.06**	(0.03)	0.01	(0.03)	0.01	(0.03)	0.04	(0.03)	0.05	(0.04)	-0.01	(0.04)	0.04	(0.04)	-0.01	(0.04)
Standard Background Controls																
<i>Income</i>																
log of permanent family income (weekly, imp.)	-0.10	(0.08)	-0.08	(0.07)	-0.12	(0.08)	-0.06	(0.08)	-0.07	(0.07)	-0.03	(0.06)	-0.10	(0.07)	-0.08	(0.07)
<i>Maternal education</i>																
=1 if NVQ level 1 or 2	0.07	(0.07)	0.17**	(0.07)	0.20***	(0.07)	-0.13*	(0.08)	0.11	(0.07)	0.13**	(0.06)	0.12*	(0.07)	-0.09	(0.07)
=1 if NVQ level 3	0.08	(0.09)	-0.08	(0.08)	0.04	(0.08)	0.07	(0.09)	-0.02	(0.08)	0.08	(0.07)	0.02	(0.08)	0.05	(0.08)
=1 if overseas qual. only	0.05	(0.17)	0.24	(0.16)	0.05	(0.17)	-0.03	(0.18)	0.27	(0.17)	0.24	(0.16)	0.34**	(0.17)	-0.19	(0.17)
=1 if none of these	0.22**	(0.10)	0.31***	(0.10)	0.14	(0.10)	-0.23**	(0.11)	0.16*	(0.10)	0.34***	(0.09)	0.28***	(0.10)	-0.14	(0.10)
<i>Mother's age at birth</i>																
=1 if less than 25 years	-0.13	(0.10)	0.22**	(0.10)	-0.02	(0.10)	-0.17*	(0.11)	-0.12	(0.10)	0.26***	(0.09)	-0.08	(0.10)	0.05	(0.10)
=1 if 25 to 29 years	-0.01	(0.10)	0.24***	(0.09)	-0.05	(0.09)	-0.01	(0.10)	-0.01	(0.09)	0.18**	(0.08)	-0.06	(0.09)	0.08	(0.09)
=1 if 30 to 34 years	-0.05	(0.10)	0.07	(0.09)	-0.02	(0.10)	-0.12	(0.10)	-0.05	(0.09)	0.08	(0.08)	-0.06	(0.09)	0.03	(0.09)
<i>Child demography</i>																
=1 if female	0.21***	(0.05)	-0.12**	(0.05)	-0.12**	(0.05)	0.19***	(0.05)	0.12**	(0.05)	-0.15***	(0.05)	-0.08*	(0.05)	0.33***	(0.05)
age (years)	-0.00	(0.10)	-0.07	(0.10)	0.02	(0.10)	0.14	(0.11)	-0.01	(0.10)	-0.20**	(0.09)	-0.05	(0.10)	0.15	(0.10)
=1 if ethnicity is non-white	0.04	(0.10)	0.05	(0.09)	0.22**	(0.10)	0.02	(0.10)	-0.04	(0.09)	-0.07	(0.09)	0.10	(0.09)	0.09	(0.09)
<i>Child's health endowment</i>																
=1 if birth weight < 2500g	0.01	(0.10)	-0.07	(0.09)	0.06	(0.10)	0.13	(0.10)	0.03	(0.10)	0.29***	(0.09)	0.16*	(0.10)	-0.04	(0.10)
<i>Size of household</i>																
log of hh size incl. cm	0.15	(0.10)	0.19**	(0.09)	-0.05	(0.10)	-0.07	(0.10)	0.17*	(0.10)	0.21**	(0.09)	-0.09	(0.10)	-0.29***	(0.10)
<i>Number of older siblings</i>																
=1 if no older siblings	0.11	(0.07)	-0.09	(0.06)	0.09	(0.07)	0.06	(0.07)	0.14**	(0.06)	-0.02	(0.06)	0.22***	(0.06)	-0.02	(0.06)
=1 if two or more older siblings	-0.04	(0.08)	-0.04	(0.08)	-0.03	(0.08)	-0.06	(0.09)	-0.11	(0.08)	-0.06	(0.07)	0.08	(0.08)	0.09	(0.08)
<i>Respondent's relationship to child</i>																
=1 if natural mother of child	0.02	(0.19)	0.26	(0.17)	0.06	(0.19)	0.33*	(0.19)	0.09	(0.15)	-0.02	(0.14)	0.00	(0.15)	0.28*	(0.15)
<i>Country where interview took place</i>																
=1 if wales	0.07	(0.35)	0.14	(0.32)	-0.04	(0.35)	-0.04	(0.35)	0.49*	(0.28)	-0.05	(0.26)	0.42	(0.28)	-0.09	(0.28)
=1 if nireland	-0.02	(0.67)	1.50**	(0.62)	0.73	(0.67)	-0.64	(0.68)	1.62*	(0.95)	2.97***	(0.88)	-0.35	(0.95)	-1.65*	(0.96)
=1 if scotland	0.13	(0.43)	0.00	(0.40)	0.94**	(0.43)	-0.54	(0.44)	-0.23	(0.34)	0.15	(0.32)	0.19	(0.34)	-0.37	(0.35)
Time and Care																
<i>Time mother spends with child</i>																
=1 if at least just enough	-0.12**	(0.06)	-0.01	(0.05)	-0.08	(0.06)	-0.02	(0.06)	-0.11**	(0.05)	-0.07	(0.05)	-0.09*	(0.05)	0.02	(0.05)
<i>Childcare</i>																
=1 if formal childcare	-0.09	(0.12)	0.30***	(0.11)	0.07	(0.12)	-0.15	(0.12)	0.33***	(0.10)	0.14	(0.10)	0.30***	(0.10)	-0.06	(0.11)
=1 if informal/ other childcare	-0.09	(0.09)	0.13	(0.08)	-0.10	(0.09)	0.07	(0.09)	0.09	(0.08)	0.12	(0.07)	0.04	(0.08)	-0.08	(0.08)
=1 if grandparent care	0.11*	(0.06)	0.02	(0.06)	0.01	(0.06)	0.07	(0.06)	0.07	(0.06)	-0.03	(0.06)	0.03	(0.06)	0.02	(0.06)
<i>Maternal employment ($t - 1$)</i>																
=1 if working part-time	-0.08	(0.07)	0.02	(0.06)	-0.07	(0.07)	-0.07	(0.07)	-0.17***	(0.06)	-0.02	(0.06)	-0.08	(0.06)	0.07	(0.06)
=1 if working full-time	-0.04	(0.14)	-0.01	(0.13)	0.01	(0.14)	-0.23	(0.14)	-0.10	(0.12)	0.02	(0.11)	0.05	(0.12)	0.07	(0.12)
<i>How long mother breastfed child</i>																

continued on next page

Table A.3.10 – continued from previous page

	Age 5								Age 7							
	ES		CP		PR		PB		ES		CP		PR		PB	
=1 if at least 6 months	0.14	(0.09)	-0.05	(0.08)	0.08	(0.09)	-0.12	(0.09)	0.10	(0.08)	-0.04	(0.07)	0.02	(0.08)	0.04	(0.08)
<i>If child is naughty...</i>																
=1 if mother smacks child	0.04	(0.20)	1.01***	(0.19)	0.26	(0.20)	-0.12	(0.21)	0.36*	(0.22)	1.09***	(0.20)	0.43**	(0.22)	-0.53**	(0.22)
=1 if mother tells child off	0.19***	(0.05)	0.45***	(0.05)	0.02	(0.05)	-0.22***	(0.05)	0.22***	(0.05)	0.62***	(0.05)	0.07	(0.05)	-0.29***	(0.05)
<i>Bedtime on term-time weekdays</i>																
=1 if regular bedtime	-0.08	(0.08)	-0.33***	(0.07)	-0.14*	(0.08)	0.28***	(0.08)	-0.16**	(0.08)	-0.19**	(0.07)	-0.00	(0.08)	0.13*	(0.08)
<i>Daily TV/ video consumption</i>																
=1 if more than 3 hours tv/ videos	0.15**	(0.07)	0.11*	(0.06)	0.02	(0.07)	-0.03	(0.07)	0.03	(0.06)	0.02	(0.06)	0.17***	(0.06)	-0.11*	(0.06)
<i>How often mother reads to the child</i>																
=1 if at least several times a week	-0.16	(0.12)	-0.33***	(0.11)	-0.16	(0.11)	0.26**	(0.12)	0.01	(0.08)	-0.19**	(0.07)	-0.13*	(0.08)	0.23***	(0.08)
Health and Health Related Behaviour																
<i>Maternal physical health</i>																
=1 if longstanding illness	0.15***	(0.06)	0.17***	(0.05)	0.12**	(0.06)	0.01	(0.06)	0.10*	(0.05)	0.10**	(0.05)	0.13**	(0.05)	0.01	(0.05)
<i>Maternal mental health</i>																
=1 if high distress	0.71***	(0.11)	0.53***	(0.10)	0.50***	(0.11)	-0.17	(0.11)	0.74***	(0.10)	0.31***	(0.10)	0.51***	(0.10)	-0.06	(0.10)
<i>Does mother currently smoke</i>																
=1 if currently smokes	-0.01	(0.05)	0.15***	(0.05)	-0.00	(0.05)	0.00	(0.05)	0.00	(0.05)	0.06	(0.05)	0.07	(0.05)	-0.01	(0.05)
<i>How often mother drinks alcohol</i>																
=1 if at least 3 times a week	-0.03	(0.08)	0.06	(0.07)	-0.10	(0.08)	0.06	(0.08)	0.01	(0.07)	0.08	(0.06)	-0.24***	(0.07)	0.07	(0.07)
Other																
<i>Housing tenure</i>																
=1 if council rented	0.14	(0.09)	0.13	(0.08)	0.18**	(0.09)	-0.08	(0.09)	0.16**	(0.08)	0.14*	(0.07)	0.10	(0.08)	-0.07	(0.08)
=1 if rented (housing association or private)/ other	0.05	(0.08)	0.16**	(0.07)	0.16**	(0.08)	-0.01	(0.08)	0.07	(0.07)	0.02	(0.06)	0.10	(0.07)	0.01	(0.07)
<i>Child's fruit consumption</i>																
=1 if cm has at least one portion of fruit per day	-0.17	(0.11)	-0.17*	(0.10)	-0.29***	(0.11)	0.23**	(0.11)	-0.16	(0.10)	-0.05	(0.09)	-0.09	(0.10)	0.06	(0.10)
<i>Maternal grandfathers' SES when respondent was aged 14</i>																
=1 if was not working	0.21**	(0.09)	0.16*	(0.09)	0.27***	(0.09)	0.04	(0.09)	0.06	(0.09)	0.01	(0.08)	-0.08	(0.09)	-0.02	(0.09)
=1 if managerial/ professional occupation	0.00	(0.09)	0.07	(0.08)	0.13	(0.08)	-0.02	(0.09)	0.00	(0.08)	0.01	(0.07)	0.05	(0.08)	-0.08	(0.08)
=1 if technical, semi-routine or routine occupation	0.03	(0.07)	0.02	(0.06)	0.07	(0.06)	0.10	(0.07)	-0.04	(0.06)	-0.03	(0.06)	0.04	(0.06)	0.06	(0.06)
=1 if can't remember or father died	0.07	(0.10)	0.08	(0.09)	0.20**	(0.09)	0.13	(0.10)	-0.03	(0.09)	0.01	(0.09)	0.06	(0.09)	-0.02	(0.10)
constant	0.31	(0.75)	0.30	(0.69)	0.87	(0.75)	-1.11	(0.76)	0.09	(0.86)	1.12	(0.80)	0.85	(0.85)	-0.94	(0.86)
σ_ϵ	0.94***	(0.02)	0.87***	(0.02)	0.94***	(0.02)	0.96***	(0.02)	0.94***	(0.02)	0.87***	(0.02)	0.94***	(0.02)	0.95***	(0.02)
N	1422.00		1422.00		1422.00		1422.00		1568.00		1568.00		1568.00		1568.00	
χ^2 ($Prob > \chi^2$)	180.21	(0.00)	460.39	(0.00)	195.05	(0.00)	128.39	(0.00)	214.26	(0.00)	487.47	(0.00)	217.85	(0.00)	179.90	(0.00)

Note: Own calculations based on MCS. BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses.

Table A.3.11: ML Estimates: SDQ and # Hospital Admissions (Eq. 1, TP)

	Age 5				Age 7			
	ES	CP	PR	PB	ES	CP	PR	PB
Child Health ($t - 1$)								
number of hospital admissions	0.05*** (0.02)	0.02 (0.02)	0.01 (0.02)	0.00 (0.02)	0.05** (0.02)	0.05*** (0.02)	0.07*** (0.02)	-0.00 (0.02)
Standard Background Controls								
<i>Income</i>								
log of permanent family income (weekly, imp.)	-0.16*** (0.03)	-0.20*** (0.03)	-0.24*** (0.03)	0.10*** (0.03)	-0.15*** (0.03)	-0.19*** (0.03)	-0.21*** (0.03)	0.08** (0.03)
<i>Maternal education</i>								
=1 if NVQ level 1 or 2	-0.02 (0.03)	0.07** (0.03)	0.01 (0.03)	-0.05* (0.03)	-0.00 (0.03)	0.06** (0.03)	-0.01 (0.03)	0.01 (0.03)
=1 if NVQ level 3	-0.07** (0.03)	0.01 (0.03)	0.00 (0.03)	0.00 (0.03)	-0.03 (0.03)	0.02 (0.03)	-0.00 (0.03)	0.02 (0.03)
=1 if overseas qual. only	0.13 (0.10)	0.30*** (0.09)	0.35*** (0.10)	-0.16 (0.10)	0.09 (0.10)	0.19** (0.09)	0.12 (0.10)	-0.15 (0.10)
=1 if none of these	0.11* (0.06)	0.19*** (0.05)	0.17*** (0.06)	0.03 (0.06)	0.01 (0.06)	0.03 (0.06)	-0.12* (0.06)	0.00 (0.06)
<i>Mother's age at birth</i>								
=1 if less than 25 years	0.06 (0.05)	0.19*** (0.04)	0.06 (0.05)	0.09* (0.05)	0.07 (0.05)	0.16*** (0.04)	0.10** (0.05)	0.02 (0.05)
=1 if 25 to 29 years	0.05 (0.04)	0.00 (0.03)	0.01 (0.04)	0.12*** (0.04)	0.05 (0.04)	0.01 (0.03)	-0.02 (0.04)	0.06* (0.04)
=1 if 30 to 34 years	0.04 (0.03)	0.01 (0.03)	-0.02 (0.03)	0.04 (0.03)	0.01 (0.03)	0.00 (0.03)	-0.03 (0.03)	0.01 (0.03)
<i>Child demography</i>								
=1 if female	0.06** (0.02)	-0.14*** (0.02)	-0.10*** (0.02)	0.27*** (0.02)	0.07*** (0.02)	-0.14*** (0.02)	-0.08*** (0.02)	0.32*** (0.02)
age (years)	-0.04 (0.05)	-0.15*** (0.05)	-0.10** (0.05)	0.23*** (0.05)	-0.01 (0.05)	-0.00 (0.05)	-0.09* (0.05)	0.09* (0.05)
=1 if ethnicity is non-white	0.06 (0.05)	0.05 (0.05)	0.20*** (0.05)	0.03 (0.05)	-0.07 (0.05)	-0.13*** (0.05)	0.19*** (0.05)	0.04 (0.05)
<i>Child's health endowment</i>								
=1 if birth weight < 2500g	0.16*** (0.05)	0.12** (0.05)	0.10* (0.05)	0.02 (0.05)	0.13** (0.05)	0.10** (0.05)	0.20*** (0.05)	-0.05 (0.05)
<i>Size of household</i>								
log of hh size incl. cm	0.16** (0.08)	0.09 (0.07)	-0.08 (0.07)	-0.07 (0.07)	0.21*** (0.07)	0.13* (0.07)	-0.09 (0.07)	-0.12* (0.07)
<i>Number of older siblings</i>								
=1 if no older siblings	0.11*** (0.03)	-0.20*** (0.03)	0.15*** (0.03)	0.07*** (0.03)	0.07** (0.03)	-0.11*** (0.03)	0.10*** (0.03)	-0.01 (0.03)
=1 if two or more older siblings	-0.09** (0.04)	-0.09** (0.04)	0.07* (0.04)	-0.04 (0.04)	-0.12*** (0.04)	-0.06* (0.04)	0.09** (0.04)	-0.01 (0.04)
<i>Respondent's relationship to child</i>								
=1 if natural mother of child	0.07 (0.10)	0.04 (0.10)	-0.14 (0.10)	0.06 (0.10)	-0.04 (0.10)	0.17* (0.09)	-0.11 (0.09)	0.16* (0.10)
<i>Country where interview took place</i>								
=1 if wales	0.06 (0.12)	0.00 (0.11)	-0.03 (0.12)	-0.04 (0.12)	-0.24** (0.12)	-0.10 (0.11)	-0.11 (0.12)	-0.01 (0.12)
=1 if nireland	0.27 (0.29)	-0.10 (0.27)	-0.15 (0.29)	0.25 (0.29)	-0.09 (0.28)	-0.41 (0.26)	-0.34 (0.28)	0.49* (0.28)
=1 if scotland	0.16 (0.15)	0.09 (0.14)	0.12 (0.15)	-0.11 (0.15)	0.01 (0.15)	-0.00 (0.14)	-0.06 (0.14)	-0.11 (0.15)
Time and Care								
<i>Time mother spends with child</i>								
=1 if at least just enough	-0.08*** (0.03)	-0.05** (0.02)	-0.13*** (0.03)	0.04 (0.03)	-0.13*** (0.03)	-0.09*** (0.02)	-0.08*** (0.03)	0.00 (0.03)
<i>Childcare</i>								
=1 if formal childcare	-0.04 (0.05)	-0.04 (0.05)	-0.01 (0.05)	-0.03 (0.05)	-0.00 (0.05)	0.01 (0.05)	-0.09* (0.05)	-0.01 (0.05)
=1 if informal/ other childcare	0.06 (0.05)	0.00 (0.04)	0.03 (0.05)	-0.05 (0.05)	-0.01 (0.04)	0.01 (0.04)	0.02 (0.04)	-0.04 (0.04)
=1 if grandparent care	0.01 (0.03)	-0.01 (0.03)	0.02 (0.03)	0.02 (0.03)	-0.02 (0.03)	-0.02 (0.03)	-0.04 (0.03)	0.02 (0.03)
<i>Maternal employment ($t - 1$)</i>								
=1 if working part-time	-0.09*** (0.03)	0.03 (0.03)	-0.06** (0.03)	0.02 (0.03)	-0.09*** (0.03)	-0.05* (0.03)	-0.09*** (0.03)	0.06** (0.03)
=1 if working full-time	-0.16*** (0.06)	0.04 (0.05)	-0.06 (0.06)	0.06 (0.06)	-0.12** (0.06)	-0.03 (0.05)	-0.11* (0.06)	0.12** (0.06)
<i>How long mother breastfed child</i>								

continued on next page

Table A.3.11 – continued from previous page

	Age 5				Age 7			
	ES	CP	PR	PB	ES	CP	PR	PB
=1 if at least 6 months	0.00 (0.03)	-0.11*** (0.03)	-0.02 (0.03)	0.05* (0.03)	-0.03 (0.03)	-0.11*** (0.03)	-0.08** (0.03)	0.01 (0.03)
<i>If child is naughty...</i>								
=1 if mother smacks child	0.22** (0.10)	0.75*** (0.09)	0.33*** (0.10)	-0.31*** (0.10)	0.13 (0.13)	0.71*** (0.12)	0.35*** (0.13)	-0.18 (0.13)
=1 if mother tells child off	0.14*** (0.02)	0.52*** (0.02)	0.05** (0.02)	-0.32*** (0.02)	0.21*** (0.02)	0.59*** (0.02)	0.13*** (0.02)	-0.34*** (0.02)
<i>Bedtime on term-time weekdays</i>								
=1 if regular bedtime	-0.18*** (0.04)	-0.29*** (0.04)	-0.22*** (0.04)	0.11** (0.04)	-0.19*** (0.04)	-0.24*** (0.04)	-0.27*** (0.04)	0.10** (0.04)
<i>Daily TV/ video consumption</i>								
=1 if more than 3 hours tv/ videos	0.09** (0.03)	0.11*** (0.03)	0.08** (0.03)	-0.11*** (0.03)	0.13*** (0.03)	0.06* (0.03)	0.09*** (0.03)	-0.06* (0.03)
<i>How often mother reads to the child</i>								
=1 if at least several times a week	-0.16*** (0.06)	-0.23*** (0.05)	-0.15*** (0.06)	0.12** (0.06)	0.06 (0.04)	-0.08** (0.04)	-0.05 (0.04)	0.07* (0.04)
Health and Health Related Behaviour								
<i>Maternal physical health</i>								
=1 if longstanding illness	0.12*** (0.03)	0.05** (0.03)	0.12*** (0.03)	0.05* (0.03)	0.18*** (0.03)	0.08*** (0.03)	0.09*** (0.03)	0.05* (0.03)
<i>Maternal mental health</i>								
=1 if high distress	0.54*** (0.08)	0.55*** (0.07)	0.34*** (0.08)	-0.34*** (0.08)	0.72*** (0.08)	0.54*** (0.07)	0.60*** (0.08)	-0.23*** (0.08)
<i>Does mother currently smoke</i>								
=1 if currently smokes	-0.01 (0.03)	0.14*** (0.03)	0.03 (0.03)	0.00 (0.03)	-0.01 (0.03)	0.14*** (0.03)	0.06** (0.03)	-0.08*** (0.03)
<i>How often mother drinks alcohol</i>								
=1 if at least 3 times a week	-0.02 (0.03)	0.05* (0.03)	-0.01 (0.03)	-0.02 (0.03)	-0.05 (0.03)	-0.02 (0.03)	-0.04 (0.03)	-0.01 (0.03)
Other								
<i>Housing tenure</i>								
=1 if council rented	0.08* (0.05)	0.22*** (0.05)	0.09* (0.05)	-0.10** (0.05)	0.09* (0.05)	0.22*** (0.05)	0.08 (0.05)	-0.09* (0.05)
=1 if rented (housing association or private)/ other	-0.06 (0.04)	0.08** (0.04)	-0.02 (0.04)	0.01 (0.04)	0.07* (0.04)	0.11*** (0.04)	0.11** (0.04)	0.02 (0.04)
<i>Child's fruit consumption</i>								
=1 if cm has at least one portion of fruit per day	-0.12* (0.06)	0.02 (0.06)	-0.07 (0.06)	0.12** (0.06)	-0.16*** (0.06)	-0.14*** (0.05)	-0.27*** (0.06)	0.19*** (0.06)
<i>Maternal grandfathers' SES when respondent was aged 14</i>								
=1 if was not working	0.04 (0.05)	0.09* (0.05)	0.11** (0.05)	-0.13** (0.05)	0.10* (0.05)	0.11** (0.05)	0.12** (0.05)	-0.00 (0.05)
=1 if managerial/ professional occupation	0.04 (0.03)	-0.02 (0.03)	-0.07** (0.03)	0.06* (0.03)	0.05 (0.03)	-0.03 (0.03)	0.01 (0.03)	0.02 (0.03)
=1 if technical, semi-routine or routine occupation	0.01 (0.03)	0.02 (0.03)	0.02 (0.03)	0.02 (0.03)	0.03 (0.03)	0.00 (0.03)	0.07** (0.03)	-0.03 (0.03)
=1 if can't remember or father died	-0.02 (0.05)	0.09* (0.05)	-0.01 (0.05)	0.01 (0.05)	-0.01 (0.05)	0.12** (0.05)	-0.03 (0.05)	-0.10* (0.05)
constant	1.17*** (0.38)	2.01*** (0.35)	2.68*** (0.37)	-2.16*** (0.37)	0.86* (0.45)	1.03** (0.41)	2.66*** (0.44)	-1.46*** (0.44)
σ_ϵ	0.97*** (0.01)	0.90*** (0.01)	0.96*** (0.01)	0.96*** (0.01)	0.96*** (0.01)	0.89*** (0.01)	0.95*** (0.01)	0.96*** (0.01)
N	7322.00	7322.00	7322.00	7322.00	7047.00	7047.00	7047.00	7047.00
$\chi^2 (Prob > \chi^2)$	430.11 (0.00)	1673.38 (0.00)	647.08 (0.00)	608.43 (0.00)	597.43 (0.00)	1824.71 (0.00)	780.72 (0.00)	636.39 (0.00)

Note: Own calculations based on MCS. BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation. * p<0.10, ** p<0.05, *** p<0.01. Standard errors in parentheses.

Table A.3.12: ML Estimates: SDQ and SDQ HA (Eq. 1, LP)

	Age 5				Age 7			
	ES	CP	PR	PB	ES	CP	PR	PB
Child Health ($t - 1$)								
hyperactivity/inattention	0.06*** (0.01)	0.13*** (0.01)	0.06*** (0.01)	-0.10*** (0.01)	0.09*** (0.01)	0.13*** (0.01)	0.08*** (0.01)	-0.09*** (0.01)
Standard Background Controls								
<i>Income</i>								
log of permanent family income (weekly, imp.)	-0.02 (0.09)	0.01 (0.08)	-0.09 (0.09)	-0.09 (0.09)	-0.01 (0.07)	0.03 (0.07)	-0.07 (0.07)	-0.15** (0.07)
<i>Maternal education</i>								
=1 if NVQ level 1 or 2	0.07 (0.08)	0.07 (0.07)	0.25*** (0.08)	-0.09 (0.08)	0.10 (0.07)	0.05 (0.07)	0.06 (0.07)	-0.03 (0.07)
=1 if NVQ level 3	0.12 (0.09)	-0.11 (0.08)	0.10 (0.09)	0.06 (0.09)	0.04 (0.08)	0.07 (0.07)	0.04 (0.08)	0.07 (0.08)
=1 if overseas qual. only	0.16 (0.19)	0.18 (0.17)	0.02 (0.19)	-0.08 (0.19)	0.20 (0.19)	0.10 (0.17)	0.13 (0.19)	-0.15 (0.19)
=1 if none of these	0.14 (0.12)	0.34*** (0.10)	0.11 (0.11)	-0.20* (0.12)	0.07 (0.11)	0.25** (0.10)	0.24** (0.11)	-0.11 (0.11)
<i>Mother's age at birth</i>								
=1 if less than 25 years	-0.14 (0.12)	0.17* (0.10)	-0.03 (0.12)	-0.13 (0.12)	-0.16 (0.11)	0.17* (0.10)	-0.15 (0.11)	0.08 (0.11)
=1 if 25 to 29 years	-0.00 (0.11)	0.16* (0.09)	-0.01 (0.11)	-0.00 (0.11)	0.03 (0.10)	0.13 (0.09)	-0.07 (0.10)	0.07 (0.10)
=1 if 30 to 34 years	-0.08 (0.11)	0.02 (0.10)	-0.06 (0.11)	-0.08 (0.11)	-0.04 (0.10)	0.00 (0.09)	-0.08 (0.10)	0.08 (0.10)
<i>Child demography</i>								
=1 if female	0.20*** (0.06)	-0.05 (0.05)	-0.07 (0.06)	0.11** (0.06)	0.15*** (0.05)	-0.05 (0.05)	0.01 (0.05)	0.24*** (0.05)
age (years)	-0.06 (0.12)	-0.08 (0.10)	0.04 (0.11)	0.12 (0.11)	0.06 (0.11)	-0.11 (0.10)	0.05 (0.11)	0.13 (0.11)
=1 if ethnicity is non-white	0.05 (0.11)	0.05 (0.10)	0.11 (0.11)	0.14 (0.11)	0.01 (0.10)	-0.13 (0.09)	0.04 (0.10)	0.21** (0.10)
<i>Child's health endowment</i>								
=1 if birth weight < 2500g	0.11 (0.12)	-0.16 (0.10)	0.13 (0.11)	0.24** (0.11)	0.05 (0.11)	0.23** (0.10)	0.12 (0.12)	0.13 (0.11)
<i>Size of household</i>								
log of hh size incl. cm	0.10 (0.11)	0.14 (0.10)	-0.13 (0.11)	-0.05 (0.11)	0.19* (0.11)	0.25** (0.10)	-0.12 (0.11)	-0.34*** (0.11)
<i>Number of older siblings</i>								
=1 if no older siblings	0.17** (0.08)	-0.06 (0.07)	0.04 (0.07)	0.09 (0.07)	0.12* (0.07)	0.00 (0.06)	0.22*** (0.07)	-0.02 (0.07)
=1 if two or more older siblings	0.01 (0.10)	0.02 (0.08)	0.05 (0.09)	-0.07 (0.09)	-0.17** (0.08)	-0.09 (0.08)	0.11 (0.08)	0.09 (0.08)
<i>Respondent's relationship to child</i>								
=1 if natural mother of child	-0.03 (0.21)	0.25 (0.18)	0.16 (0.20)	0.24 (0.20)	0.10 (0.16)	0.01 (0.14)	0.02 (0.16)	0.15 (0.16)
<i>Country where interview took place</i>								
=1 if wales	0.02 (0.43)	-0.22 (0.37)	-0.34 (0.42)	0.08 (0.42)	0.35 (0.34)	-0.17 (0.30)	0.13 (0.34)	-0.04 (0.34)
=1 if nireland	0.11 (0.67)	1.71*** (0.58)	0.83 (0.66)	-0.75 (0.66)	1.36 (0.93)	2.67*** (0.84)	-0.53 (0.94)	-1.49 (0.93)
=1 if scotland	0.39 (0.48)	0.25 (0.41)	1.32*** (0.47)	-0.86* (0.47)	-0.24 (0.36)	0.04 (0.32)	0.27 (0.36)	-0.48 (0.36)
Time and Care								
<i>Time mother spends with child</i>								
=1 if at least just enough	-0.11* (0.07)	0.05 (0.06)	-0.04 (0.06)	-0.01 (0.06)	-0.10* (0.06)	0.00 (0.05)	-0.10* (0.06)	0.01 (0.06)
<i>Childcare</i>								
=1 if formal childcare	-0.13 (0.13)	0.22** (0.11)	0.12 (0.13)	-0.17 (0.13)	0.40*** (0.11)	0.13 (0.10)	0.29*** (0.11)	-0.12 (0.11)
=1 if informal/ other childcare	-0.13 (0.10)	0.03 (0.09)	-0.19* (0.10)	0.07 (0.10)	0.06 (0.09)	0.06 (0.08)	0.08 (0.09)	-0.00 (0.09)
=1 if grandparent care	0.10 (0.07)	0.03 (0.06)	0.03 (0.07)	0.02 (0.07)	0.05 (0.07)	-0.07 (0.06)	-0.00 (0.07)	0.05 (0.07)
<i>Maternal employment ($t - 1$)</i>								
=1 if working part-time	-0.06 (0.07)	0.02 (0.06)	-0.01 (0.07)	-0.05 (0.07)	-0.19*** (0.07)	-0.04 (0.06)	-0.10 (0.07)	0.05 (0.07)
=1 if working full-time	-0.12 (0.15)	-0.02 (0.13)	0.04 (0.15)	-0.26* (0.15)	-0.27** (0.13)	-0.05 (0.12)	-0.06 (0.13)	0.10 (0.13)
<i>How long mother breastfed child</i>								

continued on next page

Table A.3.12 – continued from previous page

	Age 5								Age 7							
	ES		CP		PR		PB		ES		CP		PR		PB	
=1 if at least 6 months	0.20**	(0.10)	-0.06	(0.09)	0.09	(0.10)	-0.14	(0.10)	0.19**	(0.09)	-0.02	(0.08)	0.00	(0.09)	0.04	(0.09)
<i>If child is naughty. . .</i>																
=1 if mother smacks child	0.02	(0.21)	1.02***	(0.18)	0.23	(0.21)	-0.05	(0.21)	0.07	(0.26)	0.78***	(0.24)	0.19	(0.26)	-0.53**	(0.26)
=1 if mother tells child off	0.12**	(0.06)	0.34***	(0.05)	-0.01	(0.06)	-0.14**	(0.06)	0.11*	(0.06)	0.50***	(0.05)	0.01	(0.06)	-0.22***	(0.06)
<i>Bedtime on term-time weekdays</i>																
=1 if regular bedtime	-0.02	(0.09)	-0.30***	(0.08)	-0.07	(0.09)	0.33***	(0.09)	-0.10	(0.09)	-0.19**	(0.08)	-0.01	(0.09)	0.20**	(0.09)
<i>Daily TV/ video consumption</i>																
=1 if more than 3 hours tv/ videos	0.08	(0.07)	0.05	(0.06)	-0.07	(0.07)	0.05	(0.07)	0.05	(0.07)	0.06	(0.06)	0.20***	(0.07)	-0.11	(0.07)
<i>How often mother reads to the child</i>																
=1 if at least several times a week	-0.22*	(0.13)	-0.40***	(0.11)	-0.19	(0.13)	0.23*	(0.13)	-0.02	(0.09)	-0.15**	(0.08)	-0.15*	(0.09)	0.23***	(0.09)
Health and Health Related Behaviour																
<i>Maternal physical health</i>																
=1 if longstanding illness	0.19***	(0.07)	0.15**	(0.06)	0.16**	(0.07)	0.03	(0.07)	0.12**	(0.06)	0.08	(0.05)	0.08	(0.06)	0.04	(0.06)
<i>Maternal mental health</i>																
=1 if high distress	0.69***	(0.13)	0.47***	(0.11)	0.41***	(0.12)	-0.10	(0.12)	0.66***	(0.12)	0.25**	(0.10)	0.49***	(0.12)	0.08	(0.12)
<i>Does mother currently smoke</i>																
=1 if currently smokes	-0.03	(0.06)	0.11**	(0.05)	-0.02	(0.06)	0.07	(0.06)	-0.04	(0.06)	0.01	(0.05)	0.05	(0.06)	0.01	(0.06)
<i>How often mother drinks alcohol</i>																
=1 if at least 3 times a week	0.03	(0.09)	0.12	(0.08)	-0.10	(0.09)	0.07	(0.09)	0.07	(0.07)	0.14**	(0.07)	-0.23***	(0.07)	0.05	(0.07)
Other																
<i>Housing tenure</i>																
=1 if council rented	0.14	(0.10)	0.12	(0.08)	0.23**	(0.09)	-0.06	(0.09)	0.19**	(0.09)	0.16**	(0.08)	0.13	(0.09)	-0.13	(0.09)
=1 if rented (housing association or private)/ other	0.05	(0.08)	0.14*	(0.07)	0.16*	(0.08)	0.04	(0.08)	0.10	(0.08)	0.02	(0.07)	0.10	(0.08)	0.01	(0.08)
<i>Child's fruit consumption</i>																
=1 if cm has at least one portion of fruit per day	-0.11	(0.12)	-0.17	(0.10)	-0.30**	(0.12)	0.30**	(0.12)	-0.20*	(0.10)	0.07	(0.09)	-0.09	(0.10)	0.09	(0.10)
<i>Maternal grandfathers' SES when respondent was aged 14</i>																
=1 if was not working	0.16	(0.10)	0.16*	(0.09)	0.24**	(0.10)	0.06	(0.10)	-0.01	(0.10)	-0.07	(0.09)	-0.21**	(0.10)	-0.07	(0.10)
=1 if managerial/ professional occupation	-0.03	(0.09)	0.07	(0.08)	0.05	(0.09)	-0.02	(0.09)	-0.03	(0.09)	0.04	(0.08)	0.03	(0.09)	-0.15*	(0.09)
=1 if technical, semi-routine or routine occupation	0.09	(0.07)	0.02	(0.06)	0.04	(0.07)	0.10	(0.07)	-0.04	(0.07)	0.00	(0.06)	-0.00	(0.07)	0.07	(0.07)
=1 if can't remember or father died	0.08	(0.11)	0.14	(0.09)	0.26**	(0.11)	0.12	(0.11)	-0.06	(0.11)	0.04	(0.10)	0.09	(0.11)	0.00	(0.11)
constant	0.01	(0.84)	-0.41	(0.73)	0.29	(0.82)	-0.58	(0.83)	-0.99	(0.95)	-0.38	(0.85)	-0.07	(0.95)	-0.12	(0.95)
σ_ϵ	0.94***	(0.02)	0.81***	(0.02)	0.92***	(0.02)	0.92***	(0.02)	0.92***	(0.02)	0.83***	(0.02)	0.92***	(0.02)	0.92***	(0.02)
N	1139.00		1139.00		1139.00		1139.00		1254.00		1254.00		1254.00		1254.00	
χ^2 ($P_{rob} > \chi^2$)	151.43	(0.00)	595.25	(0.00)	203.21	(0.00)	194.55	(0.00)	235.39	(0.00)	588.86	(0.00)	222.13	(0.00)	236.13	(0.00)

Note: Own calculations based on MCS. BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses.

Table A.3.13: ML Estimates: SDQ and SDQ HA (Eq. 1, TP)

	Age 5				Age 7			
	ES	CP	PR	PB	ES	CP	PR	PB
Child Health ($t - 1$)								
hyperactivity/inattention	0.06*** (0.01)	0.12*** (0.01)	0.06*** (0.01)	-0.07*** (0.01)	0.07*** (0.01)	0.14*** (0.01)	0.08*** (0.01)	-0.09*** (0.01)
Standard Background Controls								
<i>Income</i>								
log of permanent family income (weekly, imp.)	-0.12*** (0.04)	-0.13*** (0.03)	-0.20*** (0.04)	0.07** (0.04)	-0.11*** (0.04)	-0.12*** (0.03)	-0.12*** (0.04)	0.06* (0.04)
<i>Maternal education</i>								
=1 if NVQ level 1 or 2	-0.04 (0.03)	0.04 (0.03)	-0.01 (0.03)	-0.04 (0.03)	-0.03 (0.03)	0.01 (0.03)	-0.05 (0.03)	0.04 (0.03)
=1 if NVQ level 3	-0.09** (0.04)	-0.01 (0.03)	-0.01 (0.04)	0.02 (0.04)	-0.04 (0.04)	-0.02 (0.03)	-0.00 (0.04)	0.04 (0.04)
=1 if overseas qual. only	0.19 (0.12)	0.31*** (0.11)	0.32*** (0.12)	-0.08 (0.12)	0.04 (0.12)	0.20* (0.10)	0.10 (0.12)	-0.14 (0.12)
=1 if none of these	0.05 (0.07)	0.19*** (0.06)	0.15** (0.07)	0.11 (0.07)	-0.04 (0.07)	-0.03 (0.06)	-0.15** (0.07)	0.11 (0.07)
<i>Mother's age at birth</i>								
=1 if less than 25 years	0.04 (0.05)	0.17*** (0.05)	0.06 (0.05)	0.08 (0.05)	0.03 (0.05)	0.13*** (0.05)	0.08 (0.05)	0.02 (0.05)
=1 if 25 to 29 years	0.04 (0.04)	-0.02 (0.04)	0.00 (0.04)	0.12*** (0.04)	0.04 (0.04)	-0.02 (0.04)	-0.03 (0.04)	0.07* (0.04)
=1 if 30 to 34 years	0.04 (0.04)	-0.01 (0.03)	-0.04 (0.04)	0.07** (0.04)	-0.00 (0.04)	-0.02 (0.03)	-0.05 (0.04)	0.01 (0.04)
<i>Child demography</i>								
=1 if female	0.08*** (0.03)	-0.07*** (0.02)	-0.05** (0.03)	0.23*** (0.03)	0.12*** (0.03)	-0.06** (0.02)	-0.03 (0.03)	0.27*** (0.03)
age (years)	-0.02 (0.05)	-0.14*** (0.05)	-0.11** (0.05)	0.24*** (0.05)	-0.01 (0.05)	0.04 (0.05)	-0.08 (0.05)	0.06 (0.05)
=1 if ethnicity is non-white	0.08 (0.06)	0.00 (0.05)	0.20*** (0.06)	0.11* (0.06)	-0.06 (0.06)	-0.16*** (0.05)	0.14** (0.06)	0.09 (0.06)
<i>Child's health endowment</i>								
=1 if birth weight < 2500g	0.16*** (0.06)	0.06 (0.06)	0.09 (0.06)	0.02 (0.06)	0.14** (0.06)	0.07 (0.05)	0.16*** (0.06)	0.00 (0.06)
<i>Size of household</i>								
log of hh size incl. cm	0.20** (0.08)	0.16** (0.08)	-0.03 (0.08)	-0.11 (0.08)	0.32*** (0.08)	0.25*** (0.07)	0.00 (0.08)	-0.27*** (0.08)
<i>Number of older siblings</i>								
=1 if no older siblings	0.10*** (0.03)	-0.19*** (0.03)	0.15*** (0.03)	0.08*** (0.03)	0.10*** (0.03)	-0.10*** (0.03)	0.12*** (0.03)	-0.01 (0.03)
=1 if two or more older siblings	-0.07 (0.04)	-0.04 (0.04)	0.08** (0.04)	-0.08* (0.04)	-0.13*** (0.04)	-0.06 (0.04)	0.09** (0.04)	-0.00 (0.04)
<i>Respondent's relationship to child</i>								
=1 if natural mother of child	0.07 (0.11)	0.02 (0.10)	-0.10 (0.11)	0.10 (0.11)	0.01 (0.11)	0.08 (0.09)	-0.11 (0.11)	0.11 (0.11)
<i>Country where interview took place</i>								
=1 if wales	0.02 (0.14)	-0.02 (0.12)	-0.03 (0.13)	-0.03 (0.13)	-0.20 (0.13)	-0.00 (0.12)	-0.08 (0.13)	-0.03 (0.13)
=1 if nireland	0.29 (0.35)	0.18 (0.31)	-0.19 (0.34)	-0.03 (0.34)	-0.07 (0.32)	-0.17 (0.28)	-0.16 (0.32)	0.54* (0.32)
=1 if scotland	0.13 (0.17)	0.13 (0.15)	0.18 (0.16)	-0.21 (0.16)	-0.02 (0.16)	-0.02 (0.14)	-0.07 (0.16)	-0.12 (0.16)
Time and Care								
<i>Time mother spends with child</i>								
=1 if at least just enough	-0.08*** (0.03)	-0.01 (0.03)	-0.11*** (0.03)	0.02 (0.03)	-0.11*** (0.03)	-0.06** (0.02)	-0.06** (0.03)	-0.02 (0.03)
<i>Childcare</i>								
=1 if formal childcare	-0.06 (0.06)	-0.04 (0.05)	0.00 (0.06)	-0.04 (0.06)	0.00 (0.06)	0.01 (0.05)	-0.10* (0.06)	-0.01 (0.06)
=1 if informal/ other childcare	0.01 (0.05)	-0.04 (0.05)	0.02 (0.05)	0.00 (0.05)	-0.03 (0.05)	-0.00 (0.04)	-0.01 (0.05)	-0.00 (0.05)
=1 if grandparent care	0.01 (0.03)	-0.01 (0.03)	0.03 (0.03)	0.01 (0.03)	-0.04 (0.03)	-0.03 (0.03)	-0.04 (0.03)	0.04 (0.03)
<i>Maternal employment ($t - 1$)</i>								
=1 if working part-time	-0.08*** (0.03)	0.03 (0.03)	-0.04 (0.03)	0.01 (0.03)	-0.07** (0.03)	-0.02 (0.03)	-0.07** (0.03)	0.03 (0.03)
=1 if working full-time	-0.13** (0.06)	0.07 (0.05)	-0.06 (0.06)	0.02 (0.06)	-0.09 (0.06)	-0.02 (0.05)	-0.09 (0.06)	0.09 (0.06)
<i>How long mother breastfed child</i>								

continued on next page

Table A.3.13 – continued from previous page

	Age 5				Age 7			
	ES	CP	PR	PB	ES	CP	PR	PB
=1 if at least 6 months	0.01 (0.03)	-0.09*** (0.03)	-0.00 (0.03)	0.02 (0.03)	-0.03 (0.03)	-0.09*** (0.03)	-0.05 (0.03)	-0.00 (0.03)
<i>If child is naughty...</i>								
=1 if mother smacks child	0.19* (0.11)	0.76*** (0.10)	0.42*** (0.11)	-0.42*** (0.11)	0.03 (0.14)	0.55*** (0.13)	0.25* (0.14)	0.01 (0.14)
=1 if mother tells child off	0.09*** (0.03)	0.44*** (0.02)	-0.02 (0.03)	-0.24*** (0.03)	0.16*** (0.03)	0.48*** (0.02)	0.05** (0.03)	-0.24*** (0.03)
<i>Bedtime on term-time weekdays</i>								
=1 if regular bedtime	-0.11** (0.05)	-0.23*** (0.04)	-0.18*** (0.05)	0.10** (0.05)	-0.18*** (0.05)	-0.20*** (0.04)	-0.28*** (0.05)	0.09* (0.05)
<i>Daily TV/ video consumption</i>								
=1 if more than 3 hours tv/ videos	0.09** (0.04)	0.10*** (0.03)	0.11*** (0.04)	-0.11*** (0.04)	0.11*** (0.04)	0.01 (0.03)	0.07** (0.04)	-0.01 (0.04)
<i>How often mother reads to the child</i>								
=1 if at least several times a week	-0.10 (0.07)	-0.20*** (0.06)	-0.10 (0.07)	0.10 (0.07)	0.08 (0.05)	-0.02 (0.04)	-0.01 (0.05)	0.06 (0.05)
Health and Health Related Behaviour								
<i>Maternal physical health</i>								
=1 if longstanding illness	0.13*** (0.03)	0.04 (0.03)	0.13*** (0.03)	0.06* (0.03)	0.18*** (0.03)	0.07*** (0.03)	0.10*** (0.03)	0.02 (0.03)
<i>Maternal mental health</i>								
=1 if high distress	0.38*** (0.09)	0.48*** (0.08)	0.21** (0.09)	-0.35*** (0.09)	0.63*** (0.09)	0.43*** (0.08)	0.56*** (0.09)	-0.14 (0.09)
<i>Does mother currently smoke</i>								
=1 if currently smokes	-0.00 (0.03)	0.13*** (0.03)	0.03 (0.03)	0.01 (0.03)	-0.03 (0.03)	0.11*** (0.03)	0.03 (0.03)	-0.03 (0.03)
<i>How often mother drinks alcohol</i>								
=1 if at least 3 times a week	-0.03 (0.03)	0.06** (0.03)	0.00 (0.03)	-0.04 (0.03)	-0.06* (0.03)	-0.02 (0.03)	-0.06** (0.03)	-0.01 (0.03)
Other								
<i>Housing tenure</i>								
=1 if council rented	0.07 (0.06)	0.14*** (0.05)	0.06 (0.06)	-0.10* (0.06)	0.09 (0.06)	0.11** (0.05)	0.10* (0.06)	-0.07 (0.06)
=1 if rented (housing association or private)/ other	-0.05 (0.05)	0.05 (0.04)	-0.02 (0.05)	0.01 (0.05)	0.08* (0.05)	0.07* (0.04)	0.13*** (0.05)	0.05 (0.05)
<i>Child's fruit consumption</i>								
=1 if cm has at least one portion of fruit per day	-0.08 (0.07)	0.05 (0.07)	0.01 (0.07)	0.06 (0.07)	-0.12* (0.06)	-0.16*** (0.06)	-0.23*** (0.06)	0.18*** (0.06)
<i>Maternal grandfathers' SES when respondent was aged 14</i>								
=1 if was not working	0.03 (0.06)	0.05 (0.05)	0.07 (0.06)	-0.05 (0.06)	0.06 (0.06)	0.05 (0.05)	0.11* (0.06)	0.09 (0.06)
=1 if managerial/ professional occupation	0.04 (0.04)	0.02 (0.03)	-0.06* (0.04)	0.05 (0.04)	0.05 (0.04)	-0.01 (0.03)	0.01 (0.04)	-0.01 (0.04)
=1 if technical, semi-routine or routine occupation	-0.00 (0.03)	0.02 (0.03)	-0.02 (0.03)	0.05* (0.03)	0.01 (0.03)	-0.02 (0.03)	0.02 (0.03)	0.00 (0.03)
=1 if can't remember or father died	-0.06 (0.06)	0.09 (0.05)	-0.00 (0.06)	0.04 (0.06)	-0.05 (0.06)	0.13** (0.05)	-0.00 (0.06)	-0.10* (0.06)
constant	0.49 (0.42)	0.87** (0.38)	2.00*** (0.42)	-1.71*** (0.41)	0.20 (0.49)	-0.20 (0.43)	1.70*** (0.48)	-0.67 (0.49)
σ_ϵ	0.97*** (0.01)	0.87*** (0.01)	0.95*** (0.01)	0.95*** (0.01)	0.95*** (0.01)	0.84*** (0.01)	0.94*** (0.01)	0.94*** (0.01)
N	5962.00	5962.00	5962.00	5962.00	5733.00	5733.00	5733.00	5733.00
χ^2 ($Prob > \chi^2$)	376.78 (0.00)	1918.96 (0.00)	581.55 (0.00)	673.96 (0.00)	608.60 (0.00)	2396.77 (0.00)	826.63 (0.00)	784.69 (0.00)

Note: Own calculations based on MCS. BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses.

Table A.3.14: ML Estimates: CSR and # Chronic Conditions (Eq. 1, LP)

	Age 5						Age 7					
	IND		EMO		COO		IND		EMO		COO	
Child Health ($t - 1$)												
number of health problems	-0.07	(0.05)	0.04	(0.05)	-0.06	(0.05)	-0.02	(0.05)	0.06	(0.04)	-0.04	(0.04)
Standard Background Controls												
<i>Income</i>												
log of permanent family income (weekly, imp.)	0.08	(0.08)	-0.15**	(0.08)	-0.04	(0.08)	0.08	(0.07)	-0.11*	(0.06)	-0.03	(0.07)
<i>Maternal education</i>												
=1 if NVQ level 1 or 2	-0.14*	(0.08)	0.16**	(0.07)	-0.09	(0.07)	-0.18***	(0.07)	0.22***	(0.06)	-0.14**	(0.07)
=1 if NVQ level 3	-0.05	(0.09)	-0.08	(0.08)	-0.00	(0.09)	0.04	(0.08)	0.10	(0.07)	-0.07	(0.08)
=1 if overseas qual. only	-0.05	(0.18)	0.32*	(0.17)	-0.17	(0.17)	-0.38**	(0.17)	0.34**	(0.16)	-0.36**	(0.17)
=1 if none of these	-0.15	(0.10)	0.23**	(0.10)	-0.01	(0.10)	-0.15	(0.10)	0.23**	(0.09)	-0.21**	(0.10)
<i>Mother's age at birth</i>												
=1 if less than 25 years	0.03	(0.10)	0.32***	(0.10)	-0.17	(0.10)	0.19**	(0.10)	0.39***	(0.09)	0.02	(0.10)
=1 if 25 to 29 years	-0.02	(0.10)	0.18**	(0.09)	-0.19**	(0.10)	0.07	(0.09)	0.29***	(0.08)	0.02	(0.09)
=1 if 30 to 34 years	-0.04	(0.10)	0.01	(0.09)	-0.14	(0.10)	-0.07	(0.09)	0.19**	(0.08)	0.05	(0.09)
<i>Child demography</i>												
=1 if female	0.21***	(0.05)	-0.06	(0.05)	0.16***	(0.05)	0.14***	(0.05)	-0.16***	(0.05)	0.17***	(0.05)
age (years)	0.19*	(0.11)	-0.05	(0.10)	0.27***	(0.10)	0.34***	(0.10)	-0.19**	(0.09)	-0.02	(0.10)
=1 if ethnicity is non-white	0.11	(0.10)	0.16*	(0.09)	-0.06	(0.10)	0.27***	(0.09)	-0.04	(0.09)	-0.08	(0.09)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	-0.19*	(0.10)	-0.06	(0.09)	-0.08	(0.10)	-0.41***	(0.10)	0.22**	(0.09)	-0.21**	(0.09)
<i>Size of household</i>												
log of hh size incl. cm	0.03	(0.10)	0.06	(0.09)	-0.05	(0.10)	0.05	(0.10)	0.25***	(0.09)	0.06	(0.10)
<i>Number of older siblings</i>												
=1 if no older siblings	-0.01	(0.07)	-0.03	(0.07)	0.01	(0.07)	0.00	(0.06)	0.06	(0.06)	0.01	(0.06)
=1 if two or more older siblings	0.05	(0.09)	0.05	(0.08)	0.00	(0.08)	0.12	(0.08)	-0.11	(0.07)	-0.04	(0.07)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	0.32*	(0.19)	0.12	(0.18)	0.32*	(0.19)	0.00	(0.15)	-0.09	(0.14)	-0.05	(0.15)
<i>Country where interview took place</i>												
=1 if wales	0.68*	(0.35)	0.26	(0.33)	-0.37	(0.35)	0.41	(0.28)	0.01	(0.26)	-0.12	(0.28)
=1 if nireland	-0.16	(0.68)	-0.03	(0.65)	-0.04	(0.68)	-2.96***	(0.96)	1.47*	(0.88)	-1.81*	(0.93)
=1 if scotland	-0.24	(0.44)	-0.02	(0.42)	-0.20	(0.44)	0.27	(0.35)	0.18	(0.32)	-0.10	(0.34)
Time and Care												
<i>Time mother spends with child</i>												
=1 if at least just enough	0.15**	(0.06)	-0.13**	(0.06)	0.11*	(0.06)	0.17***	(0.05)	-0.06	(0.05)	0.02	(0.05)
<i>Childcare</i>												
=1 if formal childcare	-0.15	(0.12)	0.19*	(0.12)	-0.04	(0.12)	0.13	(0.11)	0.17*	(0.10)	-0.02	(0.10)
=1 if informal/ other childcare	0.02	(0.09)	-0.03	(0.09)	-0.07	(0.09)	0.07	(0.08)	0.02	(0.07)	-0.17**	(0.08)
=1 if grandparent care	0.12*	(0.06)	-0.08	(0.06)	0.02	(0.06)	0.10	(0.06)	-0.01	(0.06)	0.02	(0.06)
<i>Maternal employment ($t - 1$)</i>												
=1 if working part-time	-0.02	(0.07)	0.01	(0.06)	0.04	(0.07)	0.06	(0.06)	-0.09	(0.06)	0.06	(0.06)
=1 if working full-time	-0.06	(0.14)	0.23*	(0.13)	0.02	(0.14)	-0.00	(0.12)	-0.01	(0.11)	0.10	(0.12)
<i>How long mother breastfed child</i>												

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Table A.3.14 – continued from previous page

	Age 5						Age 7					
	IND		EMO		COO		IND		EMO		COO	
=1 if at least 6 months	-0.15*	(0.09)	-0.16*	(0.08)	-0.16*	(0.09)	-0.10	(0.08)	-0.09	(0.07)	0.16**	(0.08)
<i>If child is naughty...</i>												
=1 if mother smacks child	-0.20	(0.21)	0.67***	(0.19)	-0.43**	(0.20)	-0.20	(0.22)	0.60***	(0.20)	-1.06***	(0.21)
=1 if mother tells child off	-0.16***	(0.05)	0.34***	(0.05)	-0.25***	(0.05)	-0.23***	(0.05)	0.57***	(0.05)	-0.46***	(0.05)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	0.22***	(0.08)	-0.19***	(0.08)	0.24***	(0.08)	0.19**	(0.08)	-0.12*	(0.07)	0.13	(0.08)
<i>Daily TV/ video consumption</i>												
=1 if more than 3 hours tv/ videos	-0.07	(0.07)	0.23***	(0.07)	-0.24***	(0.07)	-0.17**	(0.06)	0.09	(0.06)	-0.07	(0.06)
<i>How often mother reads to the child</i>												
=1 if at least several times a week	0.17	(0.12)	-0.13	(0.11)	0.35***	(0.12)	0.02	(0.08)	-0.13*	(0.07)	0.15*	(0.08)
Health and Health Related Behaviour												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.08	(0.06)	0.06	(0.06)	-0.06	(0.06)	0.01	(0.06)	0.08	(0.05)	-0.05	(0.05)
<i>Maternal mental health</i>												
=1 if high distress	-0.33***	(0.11)	0.36***	(0.10)	-0.34***	(0.11)	-0.07	(0.10)	0.32***	(0.10)	-0.24**	(0.10)
<i>Does mother currently smoke</i>												
=1 if currently smokes	-0.08	(0.05)	0.10**	(0.05)	-0.04	(0.05)	-0.08	(0.05)	0.11**	(0.05)	-0.11**	(0.05)
<i>How often mother drinks alcohol</i>												
=1 if at least 3 times a week	-0.04	(0.08)	-0.05	(0.08)	0.17**	(0.08)	0.05	(0.07)	0.04	(0.06)	0.03	(0.07)
Other												
<i>Housing tenure</i>												
=1 if council rented	-0.10	(0.09)	0.12	(0.08)	0.01	(0.09)	-0.04	(0.08)	0.06	(0.07)	-0.11	(0.08)
=1 if rented (housing association or private)/ other	-0.11	(0.08)	0.13*	(0.07)	-0.07	(0.08)	0.03	(0.07)	-0.03	(0.06)	0.03	(0.07)
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	0.18	(0.11)	-0.26**	(0.11)	0.07	(0.11)	0.12	(0.10)	-0.06	(0.09)	-0.05	(0.09)
<i>Maternal grandfathers' SES when respondent was aged 14</i>												
=1 if was not working	0.06	(0.09)	0.24***	(0.09)	-0.06	(0.09)	0.00	(0.09)	0.18**	(0.08)	-0.05	(0.09)
=1 if managerial/ professional occupation	0.10	(0.09)	0.23***	(0.08)	-0.06	(0.09)	0.06	(0.08)	0.07	(0.07)	0.04	(0.08)
=1 if technical, semi-routine or routine occupation	0.15**	(0.07)	0.11*	(0.06)	-0.01	(0.07)	-0.02	(0.06)	0.02	(0.06)	0.00	(0.06)
=1 if can't remember or father died	0.14	(0.10)	0.14	(0.09)	-0.12	(0.10)	0.01	(0.10)	0.21**	(0.09)	-0.08	(0.09)
constant	-2.25***	(0.76)	0.79	(0.72)	-1.73**	(0.76)	-3.35***	(0.86)	1.30	(0.79)	0.37	(0.84)
σ_ϵ	0.96***	(0.02)	0.90***	(0.02)	0.95***	(0.02)	0.95***	(0.02)	0.87***	(0.02)	0.92***	(0.02)
N	1422.00		1422.00		1422.00		1568.00		1568.00		1568.00	
χ^2 ($P_{rob} > \chi^2$)	133.57	(0.00)	315.71	(0.00)	156.47	(0.00)	179.30	(0.00)	498.64	(0.00)	284.07	(0.00)

Note: Own calculations based on MCS. BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses.

Table A.3.15: ML Estimates: CSR and # Chronic Conditions (Eq. 1, TP)

	Age 5			Age 7		
	IND	EMO	COO	IND	EMO	COO
Child Health ($t - 1$)						
number of health problems	-0.06** (0.03)	0.07*** (0.03)	-0.05** (0.03)	-0.10*** (0.02)	0.13*** (0.02)	-0.10*** (0.02)
Standard Background Controls						
<i>Income</i>						
log of permanent family income (weekly, imp.)	0.14*** (0.03)	-0.21*** (0.03)	0.09*** (0.03)	0.15*** (0.03)	-0.19*** (0.03)	0.19*** (0.03)
<i>Maternal education</i>						
=1 if NVQ level 1 or 2	-0.01 (0.03)	0.05* (0.03)	0.01 (0.03)	-0.04 (0.03)	0.09*** (0.03)	-0.03 (0.03)
=1 if NVQ level 3	0.03 (0.03)	0.02 (0.03)	-0.02 (0.03)	-0.02 (0.03)	0.01 (0.03)	-0.05 (0.03)
=1 if overseas qual. only	-0.09 (0.10)	0.15 (0.10)	-0.26** (0.10)	-0.11 (0.10)	0.24** (0.09)	-0.24** (0.10)
=1 if none of these	-0.05 (0.06)	0.12** (0.06)	0.05 (0.06)	-0.05 (0.06)	0.13** (0.06)	-0.06 (0.06)
<i>Mother's age at birth</i>						
=1 if less than 25 years	0.04 (0.05)	0.27*** (0.04)	0.01 (0.05)	-0.03 (0.05)	0.28*** (0.04)	0.01 (0.05)
=1 if 25 to 29 years	0.04 (0.04)	0.11*** (0.04)	0.07* (0.04)	-0.01 (0.04)	0.13*** (0.03)	0.07** (0.04)
=1 if 30 to 34 years	0.01 (0.03)	0.08** (0.03)	-0.00 (0.03)	-0.03 (0.03)	0.06** (0.03)	-0.01 (0.03)
<i>Child demography</i>						
=1 if female	0.25*** (0.02)	-0.11*** (0.02)	0.08*** (0.02)	0.21*** (0.02)	-0.14*** (0.02)	0.16*** (0.02)
age (years)	0.25*** (0.05)	-0.07 (0.05)	0.10** (0.05)	0.28*** (0.05)	-0.02 (0.05)	0.01 (0.05)
=1 if ethnicity is non-white	-0.09* (0.05)	0.03 (0.05)	-0.01 (0.05)	-0.10* (0.05)	-0.02 (0.05)	-0.07 (0.05)
<i>Child's health endowment</i>						
=1 if birth weight < 2500g	-0.19*** (0.05)	0.14*** (0.05)	-0.06 (0.05)	-0.15*** (0.05)	0.14*** (0.05)	-0.10** (0.05)
<i>Size of household</i>						
log of hh size incl. cm	0.01 (0.07)	0.19*** (0.07)	-0.10 (0.07)	0.12* (0.07)	0.17** (0.07)	-0.02 (0.07)
<i>Number of older siblings</i>						
=1 if no older siblings	-0.02 (0.03)	0.00 (0.03)	0.04 (0.03)	-0.03 (0.03)	0.04 (0.03)	0.06** (0.03)
=1 if two or more older siblings	0.01 (0.04)	-0.12*** (0.04)	0.07* (0.04)	-0.05 (0.04)	-0.11*** (0.03)	0.02 (0.04)
<i>Respondent's relationship to child</i>						
=1 if natural mother of child	0.09 (0.10)	0.12 (0.10)	-0.10 (0.10)	0.05 (0.10)	0.02 (0.09)	-0.20** (0.09)
<i>Country where interview took place</i>						
=1 if wales	-0.12 (0.12)	0.01 (0.12)	-0.08 (0.12)	0.22* (0.12)	-0.08 (0.11)	0.22* (0.12)
=1 if nireland	0.12 (0.29)	0.14 (0.28)	0.26 (0.29)	0.39 (0.28)	-0.24 (0.26)	0.33 (0.27)
=1 if scotland	0.06 (0.15)	0.06 (0.15)	-0.06 (0.15)	0.17 (0.15)	-0.08 (0.14)	-0.07 (0.14)
Time and Care						
<i>Time mother spends with child</i>						
=1 if at least just enough	0.06** (0.03)	-0.08*** (0.02)	0.04 (0.03)	0.07*** (0.03)	-0.10*** (0.02)	0.06** (0.03)
<i>Childcare</i>						
=1 if formal childcare	-0.03 (0.05)	-0.05 (0.05)	0.07 (0.05)	-0.03 (0.05)	0.05 (0.05)	-0.00 (0.05)
=1 if informal/ other childcare	-0.03 (0.05)	0.01 (0.04)	0.05 (0.05)	-0.04 (0.04)	0.07* (0.04)	0.01 (0.04)
=1 if grandparent care	0.02 (0.03)	-0.02 (0.03)	0.04 (0.03)	0.02 (0.03)	-0.01 (0.03)	0.02 (0.03)
<i>Maternal employment ($t - 1$)</i>						
=1 if working part-time	0.06** (0.03)	-0.03 (0.03)	-0.01 (0.03)	0.03 (0.03)	-0.06** (0.03)	0.02 (0.03)
=1 if working full-time	0.15*** (0.06)	0.07 (0.05)	-0.01 (0.06)	0.11* (0.06)	0.02 (0.05)	-0.02 (0.06)
<i>How long mother breastfed child</i>						

continued on next page

Table A.3.15 – continued from previous page

	Age 5						Age 7					
	IND		EMO		COO		IND		EMO		COO	
=1 if at least 6 months	0.03	(0.03)	-0.10***	(0.03)	0.00	(0.03)	0.05	(0.03)	-0.16***	(0.03)	0.07**	(0.03)
<i>If child is naughty...</i>												
=1 if mother smacks child	-0.23**	(0.10)	0.45***	(0.10)	-0.59***	(0.10)	-0.35***	(0.13)	0.45***	(0.12)	-0.28**	(0.13)
=1 if mother tells child off	-0.25***	(0.02)	0.36***	(0.02)	-0.38***	(0.02)	-0.30***	(0.02)	0.56***	(0.02)	-0.44***	(0.02)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	0.13***	(0.04)	-0.27***	(0.04)	0.17***	(0.04)	0.11**	(0.04)	-0.20***	(0.04)	0.15***	(0.04)
<i>Daily TV/ video consumption</i>												
=1 if more than 3 hours tv/ videos	-0.05	(0.03)	0.09***	(0.03)	-0.02	(0.03)	-0.08**	(0.03)	0.09***	(0.03)	-0.04	(0.03)
<i>How often mother reads to the child</i>												
=1 if at least several times a week	0.14**	(0.06)	-0.23***	(0.06)	0.06	(0.06)	-0.02	(0.04)	0.02	(0.04)	0.08*	(0.04)
Health and Health Related Behaviour												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.05*	(0.03)	0.11***	(0.03)	-0.08***	(0.03)	0.04	(0.03)	0.09***	(0.03)	-0.02	(0.03)
<i>Maternal mental health</i>												
=1 if high distress	-0.35***	(0.08)	0.47***	(0.08)	-0.41***	(0.08)	-0.17**	(0.08)	0.47***	(0.07)	-0.36***	(0.08)
<i>Does mother currently smoke</i>												
=1 if currently smokes	-0.04	(0.03)	0.05*	(0.03)	-0.04	(0.03)	-0.04	(0.03)	0.12***	(0.03)	-0.12***	(0.03)
<i>How often mother drinks alcohol</i>												
=1 if at least 3 times a week	-0.04	(0.03)	-0.03	(0.03)	-0.04	(0.03)	-0.03	(0.03)	0.01	(0.03)	0.01	(0.03)
Other												
<i>Housing tenure</i>												
=1 if council rented	0.04	(0.05)	0.06	(0.05)	-0.05	(0.05)	0.01	(0.05)	0.15***	(0.05)	-0.13***	(0.05)
=1 if rented (housing association or private)/ other	0.08*	(0.04)	0.04	(0.04)	-0.03	(0.04)	0.04	(0.04)	0.09**	(0.04)	-0.04	(0.04)
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	0.06	(0.06)	-0.14**	(0.06)	0.12*	(0.06)	0.13**	(0.06)	-0.10**	(0.05)	0.20***	(0.06)
<i>Maternal grandfathers' SES when respondent was aged 14</i>												
=1 if was not working	-0.11**	(0.05)	0.06	(0.05)	-0.02	(0.05)	-0.01	(0.05)	0.12**	(0.05)	-0.03	(0.05)
=1 if managerial/ professional occupation	0.08**	(0.03)	-0.00	(0.03)	0.01	(0.03)	0.07**	(0.03)	0.01	(0.03)	0.03	(0.03)
=1 if technical, semi-routine or routine occupation	-0.01	(0.03)	0.01	(0.03)	0.00	(0.03)	-0.01	(0.03)	0.03	(0.03)	-0.04	(0.03)
=1 if can't remember or father died	-0.05	(0.05)	0.04	(0.05)	-0.09*	(0.05)	-0.00	(0.05)	0.03	(0.05)	-0.01	(0.05)
constant	-2.64***	(0.38)	1.60***	(0.36)	-0.95**	(0.38)	-3.36***	(0.45)	0.95**	(0.41)	-1.28***	(0.44)
σ_ϵ	0.97***	(0.01)	0.94***	(0.01)	0.97***	(0.01)	0.96***	(0.01)	0.89***	(0.01)	0.94***	(0.01)
N	7322.00		7322.00		7322.00		7047.00		7047.00		7047.00	
χ^2 ($P_{rob} > \chi^2$)	494.23	(0.00)	1046.29	(0.00)	497.18	(0.00)	553.97	(0.00)	1885.18	(0.00)	908.29	(0.00)

Note: Own calculations based on MCS. BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses.

Table A.3.16: ML Estimates: CSR and # Hospital Admissions (Eq. 1, LP)

	Age 5						Age 7					
	IND		EMO		COO		IND		EMO		COO	
Child Health ($t - 1$)												
number of hospital admissions	-0.01	(0.03)	0.02	(0.03)	-0.01	(0.03)	-0.01	(0.04)	0.04	(0.04)	-0.00	(0.04)
Standard Background Controls												
<i>Income</i>												
log of permanent family income (weekly, imp.)	0.08	(0.08)	-0.15**	(0.08)	-0.04	(0.08)	0.08	(0.07)	-0.11*	(0.06)	-0.02	(0.07)
<i>Maternal education</i>												
=1 if NVQ level 1 or 2	-0.14*	(0.08)	0.16**	(0.07)	-0.08	(0.07)	-0.17***	(0.07)	0.22***	(0.06)	-0.14**	(0.07)
=1 if NVQ level 3	-0.05	(0.09)	-0.08	(0.08)	-0.00	(0.09)	0.04	(0.08)	0.10	(0.07)	-0.07	(0.08)
=1 if overseas qual. only	-0.04	(0.18)	0.32*	(0.17)	-0.16	(0.17)	-0.38**	(0.17)	0.33**	(0.16)	-0.36**	(0.17)
=1 if none of these	-0.15	(0.11)	0.23**	(0.10)	-0.00	(0.10)	-0.15	(0.10)	0.23**	(0.09)	-0.21**	(0.10)
<i>Mother's age at birth</i>												
=1 if less than 25 years	0.03	(0.10)	0.32***	(0.10)	-0.17	(0.10)	0.19**	(0.10)	0.40***	(0.09)	0.02	(0.10)
=1 if 25 to 29 years	-0.02	(0.10)	0.18**	(0.09)	-0.19*	(0.10)	0.07	(0.09)	0.30***	(0.08)	0.02	(0.09)
=1 if 30 to 34 years	-0.04	(0.10)	0.01	(0.09)	-0.14	(0.10)	-0.07	(0.09)	0.19**	(0.08)	0.05	(0.09)
<i>Child demography</i>												
=1 if female	0.21***	(0.05)	-0.06	(0.05)	0.16***	(0.05)	0.14***	(0.05)	-0.16***	(0.05)	0.17***	(0.05)
age (years)	0.20*	(0.11)	-0.06	(0.10)	0.28***	(0.10)	0.34***	(0.10)	-0.19**	(0.09)	-0.02	(0.10)
=1 if ethnicity is non-white	0.11	(0.10)	0.16*	(0.09)	-0.07	(0.10)	0.27***	(0.09)	-0.04	(0.09)	-0.08	(0.09)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	-0.19*	(0.10)	-0.07	(0.09)	-0.08	(0.10)	-0.42***	(0.10)	0.23***	(0.09)	-0.21**	(0.09)
<i>Size of household</i>												
log of hh size incl. cm	0.02	(0.10)	0.06	(0.09)	-0.05	(0.10)	0.05	(0.10)	0.24***	(0.09)	0.06	(0.10)
<i>Number of older siblings</i>												
=1 if no older siblings	-0.00	(0.07)	-0.04	(0.07)	0.02	(0.07)	0.00	(0.06)	0.06	(0.06)	0.01	(0.06)
=1 if two or more older siblings	0.06	(0.09)	0.05	(0.08)	0.01	(0.08)	0.12	(0.08)	-0.11	(0.07)	-0.04	(0.07)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	0.31	(0.19)	0.12	(0.18)	0.32*	(0.19)	0.00	(0.15)	-0.09	(0.14)	-0.06	(0.15)
<i>Country where interview took place</i>												
=1 if wales	0.67*	(0.35)	0.28	(0.33)	-0.37	(0.35)	0.41	(0.28)	-0.00	(0.26)	-0.12	(0.28)
=1 if nireland	-0.13	(0.68)	-0.04	(0.65)	-0.01	(0.68)	-2.95***	(0.96)	1.45	(0.88)	-1.80*	(0.93)
=1 if scotland	-0.24	(0.44)	-0.01	(0.42)	-0.20	(0.44)	0.27	(0.35)	0.16	(0.32)	-0.08	(0.34)
Time and Care												
<i>Time mother spends with child</i>												
=1 if at least just enough	0.15***	(0.06)	-0.14**	(0.06)	0.11*	(0.06)	0.17***	(0.05)	-0.06	(0.05)	0.02	(0.05)
<i>Childcare</i>												
=1 if formal childcare	-0.15	(0.12)	0.19*	(0.12)	-0.04	(0.12)	0.13	(0.11)	0.17*	(0.10)	-0.02	(0.10)
=1 if informal/ other childcare	0.02	(0.09)	-0.03	(0.09)	-0.07	(0.09)	0.07	(0.08)	0.02	(0.07)	-0.18**	(0.08)
=1 if grandparent care	0.12*	(0.06)	-0.08	(0.06)	0.02	(0.06)	0.10	(0.06)	-0.01	(0.06)	0.01	(0.06)
<i>Maternal employment ($t - 1$)</i>												
=1 if working part-time	-0.02	(0.07)	0.01	(0.06)	0.03	(0.07)	0.06	(0.06)	-0.09	(0.06)	0.05	(0.06)
=1 if working full-time	-0.06	(0.14)	0.23*	(0.13)	0.03	(0.14)	-0.00	(0.12)	-0.01	(0.11)	0.10	(0.12)
<i>How long mother breastfed child</i>												

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Table A.3.16 – continued from previous page

	Age 5						Age 7					
	IND		EMO		COO		IND		EMO		COO	
=1 if at least 6 months	-0.14	(0.09)	-0.16*	(0.08)	-0.15*	(0.09)	-0.10	(0.08)	-0.08	(0.07)	0.16**	(0.08)
<i>If child is naughty...</i>												
=1 if mother smacks child	-0.20	(0.21)	0.67***	(0.20)	-0.43**	(0.20)	-0.20	(0.22)	0.60***	(0.20)	-1.06***	(0.21)
=1 if mother tells child off	-0.16***	(0.05)	0.34***	(0.05)	-0.26***	(0.05)	-0.23***	(0.05)	0.57***	(0.05)	-0.46***	(0.05)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	0.22***	(0.08)	-0.20***	(0.08)	0.24***	(0.08)	0.18**	(0.08)	-0.12	(0.07)	0.12	(0.08)
<i>Daily TV/ video consumption</i>												
=1 if more than 3 hours tv/ videos	-0.07	(0.07)	0.23***	(0.07)	-0.24***	(0.07)	-0.17**	(0.06)	0.10	(0.06)	-0.07	(0.06)
<i>How often mother reads to the child</i>												
=1 if at least several times a week	0.17	(0.12)	-0.13	(0.11)	0.34***	(0.12)	0.02	(0.08)	-0.13*	(0.07)	0.15*	(0.08)
Health and Health Related Behaviour												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.07	(0.06)	0.07	(0.06)	-0.07	(0.06)	0.01	(0.05)	0.08	(0.05)	-0.05	(0.05)
<i>Maternal mental health</i>												
=1 if high distress	-0.33***	(0.11)	0.36***	(0.10)	-0.34***	(0.11)	-0.07	(0.10)	0.33***	(0.10)	-0.25**	(0.10)
<i>Does mother currently smoke</i>												
=1 if currently smokes	-0.07	(0.05)	0.10**	(0.05)	-0.04	(0.05)	-0.08	(0.05)	0.11**	(0.05)	-0.11**	(0.05)
<i>How often mother drinks alcohol</i>												
=1 if at least 3 times a week	-0.04	(0.08)	-0.05	(0.08)	0.17**	(0.08)	0.05	(0.07)	0.04	(0.06)	0.03	(0.07)
Other												
<i>Housing tenure</i>												
=1 if council rented	-0.10	(0.09)	0.12	(0.08)	0.01	(0.09)	-0.04	(0.08)	0.06	(0.07)	-0.11	(0.08)
=1 if rented (housing association or private)/ other	-0.11	(0.08)	0.13*	(0.07)	-0.07	(0.08)	0.03	(0.07)	-0.03	(0.06)	0.03	(0.07)
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	0.18	(0.11)	-0.26**	(0.11)	0.06	(0.11)	0.12	(0.10)	-0.04	(0.09)	-0.05	(0.09)
<i>Maternal grandfathers' SES when respondent was aged 14</i>												
=1 if was not working	0.06	(0.09)	0.24***	(0.09)	-0.06	(0.09)	0.00	(0.09)	0.19**	(0.08)	-0.05	(0.09)
=1 if managerial/ professional occupation	0.10	(0.09)	0.23***	(0.08)	-0.07	(0.09)	0.06	(0.08)	0.07	(0.07)	0.04	(0.08)
=1 if technical, semi-routine or routine occupation	0.15**	(0.07)	0.11*	(0.06)	-0.02	(0.07)	-0.02	(0.06)	0.02	(0.06)	0.00	(0.06)
=1 if can't remember or father died	0.14	(0.10)	0.14	(0.09)	-0.12	(0.10)	0.01	(0.10)	0.21**	(0.09)	-0.08	(0.09)
constant	-2.30***	(0.76)	0.82	(0.72)	-1.78**	(0.76)	-3.36***	(0.86)	1.29	(0.79)	0.36	(0.84)
σ_ϵ	0.96***	(0.02)	0.90***	(0.02)	0.95***	(0.02)	0.95***	(0.02)	0.87***	(0.02)	0.92***	(0.02)
N	1422.00		1422.00		1422.00		1568.00		1568.00		1568.00	
χ^2 ($P_{rob} > \chi^2$)	132.16	(0.00)	315.57	(0.00)	155.27	(0.00)	179.13	(0.00)	497.77	(0.00)	283.31	(0.00)

Note: Own calculations based on MCS. BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses.

Table A.3.17: ML Estimates: CSR and # Hospital Admissions (Eq. 1, TP)

	Age 5						Age 7					
	IND		EMO		COO		IND		EMO		COO	
Child Health ($t - 1$)												
number of hospital admissions	-0.03**	(0.02)	0.02	(0.02)	-0.03*	(0.02)	-0.05***	(0.02)	0.05**	(0.02)	-0.05**	(0.02)
Standard Background Controls												
<i>Income</i>												
log of permanent family income (weekly, imp.)	0.14***	(0.03)	-0.21***	(0.03)	0.09***	(0.03)	0.15***	(0.03)	-0.20***	(0.03)	0.19***	(0.03)
<i>Maternal education</i>												
=1 if NVQ level 1 or 2	-0.01	(0.03)	0.05*	(0.03)	0.01	(0.03)	-0.04	(0.03)	0.08***	(0.03)	-0.03	(0.03)
=1 if NVQ level 3	0.03	(0.03)	0.02	(0.03)	-0.02	(0.03)	-0.02	(0.03)	0.01	(0.03)	-0.05	(0.03)
=1 if overseas qual. only	-0.09	(0.10)	0.15	(0.10)	-0.26***	(0.10)	-0.11	(0.10)	0.24***	(0.09)	-0.24**	(0.10)
=1 if none of these	-0.05	(0.06)	0.12**	(0.06)	0.06	(0.06)	-0.05	(0.06)	0.12**	(0.06)	-0.06	(0.06)
<i>Mother's age at birth</i>												
=1 if less than 25 years	0.04	(0.05)	0.27***	(0.04)	0.01	(0.05)	-0.04	(0.05)	0.28***	(0.04)	0.01	(0.05)
=1 if 25 to 29 years	0.04	(0.04)	0.12***	(0.04)	0.07*	(0.04)	-0.02	(0.04)	0.14***	(0.03)	0.07*	(0.04)
=1 if 30 to 34 years	0.01	(0.03)	0.08**	(0.03)	-0.00	(0.03)	-0.04	(0.03)	0.06**	(0.03)	-0.01	(0.03)
<i>Child demography</i>												
=1 if female	0.25***	(0.02)	-0.11***	(0.02)	0.08***	(0.02)	0.21***	(0.02)	-0.15***	(0.02)	0.17***	(0.02)
age (years)	0.24***	(0.05)	-0.07	(0.05)	0.09*	(0.05)	0.27***	(0.05)	-0.01	(0.05)	0.00	(0.05)
=1 if ethnicity is non-white	-0.09*	(0.05)	0.03	(0.05)	-0.01	(0.05)	-0.10*	(0.05)	-0.02	(0.05)	-0.07	(0.05)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	-0.19***	(0.05)	0.14***	(0.05)	-0.06	(0.05)	-0.16***	(0.05)	0.15***	(0.05)	-0.11**	(0.05)
<i>Size of household</i>												
log of hh size incl. cm	0.01	(0.07)	0.18**	(0.07)	-0.10	(0.07)	0.13*	(0.07)	0.16**	(0.07)	-0.01	(0.07)
<i>Number of older siblings</i>												
=1 if no older siblings	-0.02	(0.03)	-0.00	(0.03)	0.04	(0.03)	-0.03	(0.03)	0.04	(0.03)	0.06**	(0.03)
=1 if two or more older siblings	0.01	(0.04)	-0.12***	(0.04)	0.07*	(0.04)	-0.05	(0.04)	-0.11***	(0.03)	0.02	(0.04)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	0.09	(0.10)	0.12	(0.10)	-0.10	(0.10)	0.05	(0.10)	0.03	(0.09)	-0.21**	(0.09)
<i>Country where interview took place</i>												
=1 if wales	-0.12	(0.12)	0.02	(0.12)	-0.08	(0.12)	0.21*	(0.12)	-0.07	(0.11)	0.21*	(0.12)
=1 if nireland	0.13	(0.29)	0.13	(0.28)	0.27	(0.29)	0.40	(0.28)	-0.26	(0.26)	0.34	(0.27)
=1 if scotland	0.08	(0.15)	0.05	(0.15)	-0.05	(0.15)	0.18	(0.15)	-0.10	(0.14)	-0.05	(0.14)
Time and Care												
<i>Time mother spends with child</i>												
=1 if at least just enough	0.06**	(0.03)	-0.08***	(0.02)	0.04	(0.03)	0.08***	(0.03)	-0.11***	(0.02)	0.06**	(0.03)
<i>Childcare</i>												
=1 if formal childcare	-0.03	(0.05)	-0.05	(0.05)	0.07	(0.05)	-0.03	(0.05)	0.05	(0.05)	-0.00	(0.05)
=1 if informal/ other childcare	-0.03	(0.05)	0.01	(0.04)	0.06	(0.05)	-0.03	(0.04)	0.07*	(0.04)	0.01	(0.04)
=1 if grandparent care	0.02	(0.03)	-0.02	(0.03)	0.04	(0.03)	0.02	(0.03)	-0.02	(0.03)	0.02	(0.03)
<i>Maternal employment ($t - 1$)</i>												
=1 if working part-time	0.06**	(0.03)	-0.03	(0.03)	-0.01	(0.03)	0.03	(0.03)	-0.06**	(0.03)	0.02	(0.03)
=1 if working full-time	0.15***	(0.06)	0.07	(0.05)	-0.01	(0.06)	0.11*	(0.06)	0.01	(0.05)	-0.01	(0.06)
<i>How long mother breastfed child</i>												

continued on next page

Table A.3.17 – continued from previous page

	Age 5						Age 7					
	IND		EMO		COO		IND		EMO		COO	
=1 if at least 6 months	0.03	(0.03)	-0.10***	(0.03)	0.00	(0.03)	0.04	(0.03)	-0.15***	(0.03)	0.06**	(0.03)
<i>If child is naughty...</i>												
=1 if mother smacks child	-0.24**	(0.10)	0.45***	(0.10)	-0.59***	(0.10)	-0.35***	(0.13)	0.46***	(0.12)	-0.28**	(0.13)
=1 if mother tells child off	-0.25***	(0.02)	0.36***	(0.02)	-0.38***	(0.02)	-0.30***	(0.02)	0.56***	(0.02)	-0.44***	(0.02)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	0.13***	(0.04)	-0.27***	(0.04)	0.17***	(0.04)	0.10**	(0.04)	-0.20***	(0.04)	0.14***	(0.04)
<i>Daily TV/ video consumption</i>												
=1 if more than 3 hours tv/ videos	-0.04	(0.03)	0.09***	(0.03)	-0.02	(0.03)	-0.08**	(0.03)	0.09***	(0.03)	-0.04	(0.03)
<i>How often mother reads to the child</i>												
=1 if at least several times a week	0.14**	(0.06)	-0.22***	(0.06)	0.06	(0.06)	-0.02	(0.04)	0.03	(0.04)	0.07*	(0.04)
Health and Health Related Behaviour												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.05*	(0.03)	0.11***	(0.03)	-0.08***	(0.03)	0.03	(0.03)	0.11***	(0.03)	-0.03	(0.03)
<i>Maternal mental health</i>												
=1 if high distress	-0.35***	(0.08)	0.47***	(0.08)	-0.41***	(0.08)	-0.18**	(0.08)	0.49***	(0.07)	-0.38***	(0.08)
<i>Does mother currently smoke</i>												
=1 if currently smokes	-0.04	(0.03)	0.05*	(0.03)	-0.04	(0.03)	-0.04	(0.03)	0.12***	(0.03)	-0.12***	(0.03)
<i>How often mother drinks alcohol</i>												
=1 if at least 3 times a week	-0.04	(0.03)	-0.03	(0.03)	-0.04	(0.03)	-0.03	(0.03)	0.01	(0.03)	0.02	(0.03)
Other												
<i>Housing tenure</i>												
=1 if council rented	0.04	(0.05)	0.06	(0.05)	-0.05	(0.05)	0.00	(0.05)	0.15***	(0.05)	-0.13***	(0.05)
=1 if rented (housing association or private)/ other	0.08*	(0.04)	0.04	(0.04)	-0.03	(0.04)	0.04	(0.04)	0.09**	(0.04)	-0.04	(0.04)
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	0.06	(0.06)	-0.14**	(0.06)	0.12*	(0.06)	0.14**	(0.06)	-0.11**	(0.05)	0.20***	(0.06)
<i>Maternal grandfathers' SES when respondent was aged 14</i>												
=1 if was not working	-0.12**	(0.05)	0.06	(0.05)	-0.02	(0.05)	-0.01	(0.05)	0.13***	(0.05)	-0.04	(0.05)
=1 if managerial/ professional occupation	0.08**	(0.03)	-0.00	(0.03)	0.00	(0.03)	0.07**	(0.03)	0.01	(0.03)	0.03	(0.03)
=1 if technical, semi-routine or routine occupation	-0.01	(0.03)	0.01	(0.03)	0.00	(0.03)	-0.01	(0.03)	0.03	(0.03)	-0.04	(0.03)
=1 if can't remember or father died	-0.05	(0.05)	0.04	(0.05)	-0.09*	(0.05)	-0.01	(0.05)	0.03	(0.05)	-0.01	(0.05)
constant	-2.63***	(0.38)	1.60***	(0.36)	-0.94**	(0.38)	-3.33***	(0.45)	0.92**	(0.41)	-1.25***	(0.44)
σ_ϵ	0.97***	(0.01)	0.94***	(0.01)	0.97***	(0.01)	0.96***	(0.01)	0.89***	(0.01)	0.94***	(0.01)
N	7322.00		7322.00		7322.00		7047.00		7047.00		7047.00	
χ^2 ($Prob > \chi^2$)	493.65	(0.00)	1039.40	(0.00)	496.46	(0.00)	541.73	(0.00)	1839.47	(0.00)	888.75	(0.00)

Note: Own calculations based on MCS. BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation. * p<0.10, ** p<0.05, *** p<0.01. Standard errors in parentheses.

Table A.3.18: ML Estimates: CSR and SDQ HA (Eq. 1, LP)

	Age 5						Age 7					
	IND		EMO		COO		IND		EMO		COO	
Child Health ($t - 1$)												
hyperactivity/inattention	-0.12***	(0.01)	0.10***	(0.01)	-0.10***	(0.01)	-0.13***	(0.01)	0.16***	(0.01)	-0.13***	(0.01)
Standard Background Controls												
<i>Income</i>												
log of permanent family income (weekly, imp.)	0.11	(0.09)	-0.09	(0.08)	-0.07	(0.09)	0.05	(0.07)	-0.05	(0.06)	-0.07	(0.07)
<i>Maternal education</i>												
=1 if NVQ level 1 or 2	-0.09	(0.08)	0.14*	(0.08)	-0.08	(0.08)	-0.09	(0.07)	0.14**	(0.06)	-0.04	(0.07)
=1 if NVQ level 3	-0.06	(0.09)	-0.05	(0.09)	-0.04	(0.09)	0.07	(0.08)	0.13*	(0.07)	-0.05	(0.08)
=1 if overseas qual. only	0.05	(0.19)	0.24	(0.18)	-0.08	(0.19)	-0.31	(0.19)	0.04	(0.17)	-0.12	(0.18)
=1 if none of these	-0.07	(0.11)	0.22**	(0.11)	0.04	(0.11)	0.03	(0.11)	0.14	(0.09)	-0.01	(0.10)
<i>Mother's age at birth</i>												
=1 if less than 25 years	0.13	(0.12)	0.27**	(0.11)	-0.16	(0.12)	0.32***	(0.11)	0.38***	(0.09)	0.04	(0.10)
=1 if 25 to 29 years	0.07	(0.11)	0.17*	(0.10)	-0.17	(0.11)	0.10	(0.10)	0.29***	(0.08)	-0.02	(0.09)
=1 if 30 to 34 years	0.01	(0.11)	-0.04	(0.10)	-0.14	(0.11)	-0.03	(0.10)	0.13	(0.08)	0.06	(0.09)
<i>Child demography</i>												
=1 if female	0.15***	(0.06)	-0.05	(0.05)	0.09	(0.06)	0.02	(0.05)	-0.04	(0.05)	0.09*	(0.05)
age (years)	0.17	(0.11)	-0.08	(0.11)	0.29***	(0.11)	0.26**	(0.11)	-0.11	(0.09)	-0.10	(0.10)
=1 if ethnicity is non-white	0.13	(0.11)	0.27***	(0.10)	-0.03	(0.11)	0.34***	(0.10)	-0.07	(0.09)	-0.09	(0.10)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	-0.00	(0.11)	-0.05	(0.11)	-0.01	(0.11)	-0.26**	(0.11)	0.16*	(0.10)	-0.04	(0.11)
<i>Size of household</i>												
log of hh size incl. cm	-0.06	(0.11)	0.06	(0.10)	-0.04	(0.11)	-0.07	(0.11)	0.29***	(0.09)	0.03	(0.10)
<i>Number of older siblings</i>												
=1 if no older siblings	0.01	(0.07)	-0.01	(0.07)	0.02	(0.07)	0.02	(0.07)	0.03	(0.06)	0.02	(0.07)
=1 if two or more older siblings	0.10	(0.09)	0.06	(0.09)	-0.02	(0.09)	0.21**	(0.08)	-0.14*	(0.07)	-0.04	(0.08)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	0.05	(0.20)	0.13	(0.19)	0.15	(0.20)	0.04	(0.16)	0.04	(0.14)	-0.15	(0.15)
<i>Country where interview took place</i>												
=1 if wales	0.36	(0.42)	0.32	(0.40)	-0.01	(0.42)	0.22	(0.33)	0.08	(0.29)	-0.03	(0.32)
=1 if nireland	-0.25	(0.66)	0.10	(0.63)	-0.11	(0.66)	-2.60***	(0.92)	0.95	(0.80)	-1.43	(0.89)
=1 if scotland	-0.51	(0.47)	0.25	(0.44)	-0.44	(0.47)	0.34	(0.36)	0.08	(0.31)	-0.29	(0.34)
Time and Care												
<i>Time mother spends with child</i>												
=1 if at least just enough	0.13**	(0.06)	-0.11*	(0.06)	0.11*	(0.06)	0.12**	(0.06)	-0.01	(0.05)	-0.07	(0.06)
<i>Childcare</i>												
=1 if formal childcare	-0.18	(0.13)	0.11	(0.12)	0.04	(0.13)	0.07	(0.11)	0.21**	(0.09)	-0.07	(0.11)
=1 if informal/ other childcare	0.02	(0.10)	-0.09	(0.10)	-0.03	(0.10)	0.09	(0.09)	-0.05	(0.07)	-0.17**	(0.08)
=1 if grandparent care	0.04	(0.07)	-0.03	(0.07)	-0.01	(0.07)	0.11*	(0.07)	-0.04	(0.06)	0.01	(0.06)
<i>Maternal employment ($t - 1$)</i>												
=1 if working part-time	-0.04	(0.07)	0.01	(0.07)	0.03	(0.07)	0.06	(0.07)	-0.07	(0.06)	0.08	(0.06)
=1 if working full-time	-0.09	(0.15)	0.16	(0.14)	0.01	(0.15)	0.12	(0.13)	-0.08	(0.11)	0.14	(0.12)
<i>How long mother breastfed child</i>												

continued on next page

Table A.3.18 – continued from previous page

	Age 5						Age 7					
	IND		EMO		COO		IND		EMO		COO	
=1 if at least 6 months	-0.21**	(0.10)	-0.15	(0.09)	-0.23**	(0.10)	-0.07	(0.09)	-0.05	(0.07)	0.17**	(0.08)
<i>If child is naughty...</i>												
=1 if mother smacks child	0.01	(0.21)	0.61***	(0.20)	-0.27	(0.21)	0.12	(0.26)	0.56**	(0.23)	-1.09***	(0.25)
=1 if mother tells child off	-0.14**	(0.06)	0.27***	(0.06)	-0.19***	(0.06)	-0.09*	(0.05)	0.43***	(0.05)	-0.36***	(0.05)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	0.21**	(0.09)	-0.18**	(0.08)	0.23***	(0.09)	0.17**	(0.09)	-0.07	(0.08)	0.08	(0.08)
<i>Daily TV/ video consumption</i>												
=1 if more than 3 hours tv/ videos	-0.03	(0.07)	0.18***	(0.07)	-0.21***	(0.07)	-0.12*	(0.07)	0.05	(0.06)	-0.02	(0.07)
<i>How often mother reads to the child</i>												
=1 if at least several times a week	0.16	(0.12)	-0.20*	(0.12)	0.41***	(0.13)	-0.04	(0.09)	-0.12*	(0.07)	0.15*	(0.08)
Health and Health Related Behaviour												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.07	(0.07)	0.04	(0.06)	-0.02	(0.07)	0.01	(0.06)	0.10**	(0.05)	-0.04	(0.06)
<i>Maternal mental health</i>												
=1 if high distress	-0.17	(0.12)	0.25**	(0.12)	-0.26**	(0.12)	0.04	(0.11)	0.19*	(0.10)	-0.18*	(0.11)
<i>Does mother currently smoke</i>												
=1 if currently smokes	-0.01	(0.06)	0.06	(0.06)	0.04	(0.06)	-0.04	(0.06)	0.07	(0.05)	-0.08	(0.05)
<i>How often mother drinks alcohol</i>												
=1 if at least 3 times a week	-0.03	(0.09)	-0.00	(0.08)	0.16*	(0.09)	-0.01	(0.07)	0.13**	(0.06)	-0.01	(0.07)
Other												
<i>Housing tenure</i>												
=1 if council rented	-0.03	(0.09)	0.13	(0.09)	-0.00	(0.09)	-0.11	(0.09)	0.02	(0.08)	-0.12	(0.08)
=1 if rented (housing association or private)/ other	-0.05	(0.08)	0.09	(0.08)	-0.08	(0.08)	0.00	(0.07)	-0.08	(0.06)	0.03	(0.07)
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	0.21*	(0.12)	-0.23**	(0.11)	0.00	(0.12)	0.13	(0.10)	0.01	(0.09)	-0.07	(0.10)
<i>Maternal grandfathers' SES when respondent was aged 14</i>												
=1 if was not working	0.10	(0.10)	0.21**	(0.10)	0.01	(0.10)	-0.05	(0.10)	0.11	(0.08)	-0.05	(0.09)
=1 if managerial/ professional occupation	0.14	(0.09)	0.22**	(0.09)	0.03	(0.09)	0.02	(0.09)	0.07	(0.07)	0.00	(0.08)
=1 if technical, semi-routine or routine occupation	0.17**	(0.07)	0.07	(0.07)	0.05	(0.07)	0.00	(0.06)	0.00	(0.06)	-0.03	(0.06)
=1 if can't remember or father died	0.20*	(0.11)	0.13	(0.10)	-0.06	(0.11)	0.09	(0.11)	0.18**	(0.09)	-0.04	(0.10)
constant	-1.68**	(0.82)	0.35	(0.78)	-1.26	(0.82)	-2.16**	(0.93)	-0.30	(0.81)	1.77**	(0.90)
σ_ϵ	0.92***	(0.02)	0.87***	(0.02)	0.92***	(0.02)	0.91***	(0.02)	0.79***	(0.02)	0.88***	(0.02)
N	1139.00		1139.00		1139.00		1254.00		1254.00		1254.00	
$\chi^2 (Prob > \chi^2)$	210.26	(0.00)	354.19	(0.00)	204.47	(0.00)	274.36	(0.00)	764.36	(0.00)	380.88	(0.00)

Note: Own calculations based on MCS. BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation. * p<0.10, ** p<0.05, *** p<0.01. Standard errors in parentheses.

Table A.3.19: ML Estimates: CSR and SDQ HA (Eq. 1, TP)

	Age 5						Age 7					
	IND		EMO		COO		IND		EMO		COO	
Child Health ($t - 1$)												
hyperactivity/inattention	-0.10***	(0.01)	0.12***	(0.01)	-0.10***	(0.01)	-0.15***	(0.01)	0.18***	(0.01)	-0.14***	(0.01)
Standard Background Controls												
<i>Income</i>												
log of permanent family income (weekly, imp.)	0.08**	(0.04)	-0.14***	(0.04)	0.03	(0.04)	0.10***	(0.04)	-0.09***	(0.03)	0.14***	(0.04)
<i>Maternal education</i>												
=1 if NVQ level 1 or 2	0.01	(0.03)	0.02	(0.03)	0.04	(0.03)	0.02	(0.03)	0.02	(0.03)	0.02	(0.03)
=1 if NVQ level 3	0.07*	(0.04)	-0.02	(0.04)	-0.00	(0.04)	0.02	(0.04)	-0.02	(0.03)	-0.02	(0.04)
=1 if overseas qual. only	0.07	(0.11)	0.14	(0.11)	-0.32***	(0.11)	-0.14	(0.11)	0.19*	(0.10)	-0.23**	(0.11)
=1 if none of these	0.01	(0.07)	0.06	(0.06)	0.07	(0.07)	0.04	(0.07)	0.06	(0.06)	0.06	(0.07)
<i>Mother's age at birth</i>												
=1 if less than 25 years	0.07	(0.05)	0.25***	(0.05)	0.07	(0.05)	-0.01	(0.05)	0.23***	(0.04)	0.05	(0.05)
=1 if 25 to 29 years	0.05	(0.04)	0.10***	(0.04)	0.11***	(0.04)	-0.02	(0.04)	0.13***	(0.03)	0.09**	(0.04)
=1 if 30 to 34 years	0.01	(0.04)	0.07*	(0.04)	0.05	(0.04)	-0.02	(0.04)	0.05	(0.03)	0.03	(0.04)
<i>Child demography</i>												
=1 if female	0.21***	(0.03)	-0.05**	(0.02)	0.00	(0.03)	0.12***	(0.03)	-0.03	(0.02)	0.07***	(0.02)
age (years)	0.28***	(0.05)	-0.06	(0.05)	0.09*	(0.05)	0.23***	(0.05)	0.02	(0.05)	-0.04	(0.05)
=1 if ethnicity is non-white	-0.08	(0.06)	-0.05	(0.06)	0.03	(0.06)	-0.05	(0.06)	-0.05	(0.05)	0.03	(0.06)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	-0.18***	(0.06)	0.08	(0.06)	-0.07	(0.06)	-0.11*	(0.06)	0.06	(0.05)	-0.03	(0.06)
<i>Size of household</i>												
log of hh size incl. cm	-0.03	(0.08)	0.20***	(0.08)	-0.16**	(0.08)	0.04	(0.08)	0.28***	(0.07)	-0.08	(0.08)
<i>Number of older siblings</i>												
=1 if no older siblings	-0.02	(0.03)	-0.01	(0.03)	0.03	(0.03)	-0.04	(0.03)	0.05**	(0.03)	0.06**	(0.03)
=1 if two or more older siblings	-0.02	(0.04)	-0.07*	(0.04)	0.05	(0.04)	-0.05	(0.04)	-0.09**	(0.04)	-0.00	(0.04)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	0.10	(0.11)	0.15	(0.11)	-0.07	(0.11)	0.01	(0.10)	-0.01	(0.09)	-0.16	(0.10)
<i>Country where interview took place</i>												
=1 if wales	-0.10	(0.13)	-0.10	(0.13)	0.05	(0.13)	0.23*	(0.13)	0.03	(0.11)	0.15	(0.12)
=1 if nireland	0.27	(0.34)	0.21	(0.32)	0.15	(0.34)	0.40	(0.31)	-0.01	(0.27)	-0.00	(0.30)
=1 if scotland	-0.00	(0.16)	0.13	(0.15)	-0.14	(0.16)	0.11	(0.15)	-0.10	(0.14)	-0.15	(0.15)
Time and Care												
<i>Time mother spends with child</i>												
=1 if at least just enough	0.03	(0.03)	-0.04*	(0.03)	0.01	(0.03)	0.06**	(0.03)	-0.06**	(0.02)	0.03	(0.03)
<i>Childcare</i>												
=1 if formal childcare	-0.03	(0.06)	-0.07	(0.05)	0.09	(0.06)	-0.02	(0.06)	0.02	(0.05)	0.03	(0.05)
=1 if informal/ other childcare	-0.01	(0.05)	-0.07	(0.05)	0.15***	(0.05)	-0.01	(0.04)	0.03	(0.04)	0.04	(0.04)
=1 if grandparent care	0.03	(0.03)	-0.01	(0.03)	0.03	(0.03)	0.03	(0.03)	-0.01	(0.03)	0.03	(0.03)
<i>Maternal employment ($t - 1$)</i>												
=1 if working part-time	0.05*	(0.03)	-0.03	(0.03)	-0.02	(0.03)	-0.01	(0.03)	-0.03	(0.03)	-0.00	(0.03)
=1 if working full-time	0.11*	(0.06)	0.09	(0.06)	-0.04	(0.06)	0.07	(0.06)	0.05	(0.05)	-0.08	(0.06)
<i>How long mother breastfed child</i>												

continued on next page

Table A.3.19 – continued from previous page

	Age 5						Age 7					
	IND		EMO		COO		IND		EMO		COO	
=1 if at least 6 months	-0.01	(0.03)	-0.05*	(0.03)	-0.07**	(0.03)	-0.01	(0.03)	-0.10***	(0.03)	0.02	(0.03)
<i>If child is naughty...</i>												
=1 if mother smacks child	-0.23**	(0.11)	0.50***	(0.11)	-0.55***	(0.11)	-0.27*	(0.14)	0.30**	(0.12)	-0.31**	(0.14)
=1 if mother tells child off	-0.16***	(0.03)	0.28***	(0.03)	-0.31***	(0.03)	-0.15***	(0.03)	0.40***	(0.02)	-0.31***	(0.03)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	0.13***	(0.05)	-0.20***	(0.05)	0.15***	(0.05)	0.07	(0.05)	-0.13***	(0.04)	0.14***	(0.05)
<i>Daily TV/ video consumption</i>												
=1 if more than 3 hours tv/ videos	-0.04	(0.04)	0.07*	(0.04)	-0.01	(0.04)	-0.01	(0.04)	0.07**	(0.03)	-0.01	(0.04)
<i>How often mother reads to the child</i>												
=1 if at least several times a week	0.07	(0.07)	-0.18***	(0.06)	0.03	(0.07)	-0.02	(0.05)	0.06	(0.04)	0.04	(0.04)
Health and Health Related Behaviour												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.06**	(0.03)	0.11***	(0.03)	-0.08***	(0.03)	0.03	(0.03)	0.11***	(0.03)	-0.04	(0.03)
<i>Maternal mental health</i>												
=1 if high distress	-0.42***	(0.09)	0.38***	(0.08)	-0.37***	(0.09)	-0.04	(0.09)	0.33***	(0.08)	-0.24***	(0.09)
<i>Does mother currently smoke</i>												
=1 if currently smokes	-0.03	(0.03)	0.03	(0.03)	-0.03	(0.03)	0.01	(0.03)	0.08***	(0.03)	-0.07**	(0.03)
<i>How often mother drinks alcohol</i>												
=1 if at least 3 times a week	-0.03	(0.03)	-0.04	(0.03)	-0.03	(0.03)	-0.04	(0.03)	0.00	(0.03)	0.04	(0.03)
Other												
<i>Housing tenure</i>												
=1 if council rented	0.07	(0.06)	0.02	(0.05)	-0.05	(0.06)	0.07	(0.06)	0.03	(0.05)	-0.06	(0.06)
=1 if rented (housing association or private)/ other	0.09**	(0.05)	0.01	(0.04)	0.01	(0.05)	0.04	(0.05)	0.06	(0.04)	-0.05	(0.04)
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	0.02	(0.07)	-0.04	(0.07)	0.07	(0.07)	0.11*	(0.06)	-0.12**	(0.06)	0.18***	(0.06)
<i>Maternal grandfathers' SES when respondent was aged 14</i>												
=1 if was not working	-0.11*	(0.06)	-0.03	(0.05)	-0.01	(0.06)	0.05	(0.06)	0.07	(0.05)	0.02	(0.06)
=1 if managerial/ professional occupation	0.06*	(0.04)	0.03	(0.03)	-0.02	(0.04)	0.06	(0.03)	0.05	(0.03)	0.01	(0.03)
=1 if technical, semi-routine or routine occupation	-0.01	(0.03)	-0.00	(0.03)	0.02	(0.03)	0.02	(0.03)	0.01	(0.03)	-0.01	(0.03)
=1 if can't remember or father died	-0.03	(0.06)	-0.01	(0.06)	-0.04	(0.06)	0.05	(0.06)	-0.00	(0.05)	0.02	(0.06)
constant	-2.01***	(0.41)	0.47	(0.39)	-0.09	(0.41)	-2.12***	(0.47)	-0.67	(0.42)	-0.11	(0.46)
σ_ϵ	0.95***	(0.01)	0.90***	(0.01)	0.94***	(0.01)	0.91***	(0.01)	0.81***	(0.01)	0.90***	(0.01)
N	5962.00		5962.00		5962.00		5733.00		5733.00		5733.00	
χ^2 ($P_{rob} > \chi^2$)	719.96	(0.00)	1387.36	(0.00)	723.51	(0.00)	1137.79	(0.00)	3017.91	(0.00)	1387.65	(0.00)

Note: Own calculations based on MCS. BAS NV: BAS Naming Vocabulary Test; BAS PS: BAS Picture Similarity Test; BAS PC: BAS Pattern Construction Test; BAS WR: BAS Word Reading Test NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation. * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$. Standard errors in parentheses.

Table A.3.20: ML Estimates: Health (Eq. 2, LP)

	Age 5						Age 7					
	# chronic		# hospital		SDQ HA		# chronic		# hospital		SDQ HA	
Standard Background Controls												
<i>Income</i>												
log of permanent family income (weekly, imp.)	-0.04	(0.20)	0.12	(0.21)	-0.02	(0.19)	-0.34**	(0.17)	-0.10	(0.26)	-0.26	(0.19)
<i>Maternal education</i>												
=1 if NVQ level 1 or 2	-0.03	(0.19)	-0.37*	(0.20)	0.25	(0.18)	-0.14	(0.16)	0.05	(0.24)	0.29*	(0.17)
=1 if NVQ level 3	0.10	(0.21)	-0.21	(0.23)	0.34	(0.21)	-0.06	(0.18)	0.17	(0.27)	-0.14	(0.19)
=1 if overseas qual. only	-0.59	(0.55)	-0.77	(0.52)	0.76*	(0.44)	-0.54	(0.45)	-0.24	(0.64)	0.55	(0.42)
=1 if none of these	-0.21	(0.26)	-0.79***	(0.28)	0.11	(0.25)	-0.20	(0.22)	0.51	(0.31)	0.44*	(0.25)
<i>Mother's age at birth</i>												
=1 if less than 25 years	-0.02	(0.25)	0.23	(0.28)	0.68***	(0.26)	-0.04	(0.22)	-0.31	(0.34)	0.61**	(0.25)
=1 if 25 to 29 years	-0.03	(0.23)	0.27	(0.26)	0.45*	(0.24)	0.16	(0.20)	-0.35	(0.31)	0.44*	(0.23)
=1 if 30 to 34 years	-0.05	(0.23)	0.26	(0.27)	0.35	(0.24)	0.11	(0.20)	-0.39	(0.31)	0.47**	(0.23)
<i>Child demography</i>												
=1 if female	-0.37***	(0.13)	-0.37***	(0.14)	-0.60***	(0.12)	-0.17	(0.11)	-0.11	(0.17)	-0.54***	(0.12)
age (years)	-0.16	(0.30)	0.06	(0.31)	-0.29	(0.28)	0.07	(0.23)	-0.59*	(0.35)	-0.34	(0.25)
=1 if ethnicity is non-white	0.18	(0.22)	-0.49*	(0.28)	0.24	(0.24)	-0.43*	(0.24)	0.08	(0.32)	0.28	(0.24)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	0.17	(0.22)	0.40*	(0.24)	0.65**	(0.29)	0.33*	(0.20)	0.03	(0.33)	0.48	(0.32)
<i>Size of household</i>												
log of hh size incl. cm	-0.19	(0.25)	-0.29	(0.25)	-0.18	(0.23)	-0.25	(0.21)	-0.19	(0.32)	-0.23	(0.23)
<i>Number of older siblings</i>												
=1 if no older siblings	-0.52***	(0.17)	-0.20	(0.18)	-0.13	(0.16)	-0.23	(0.15)	-0.19	(0.21)	0.17	(0.16)
=1 if two or more older siblings	-0.09	(0.20)	-0.02	(0.21)	0.31	(0.20)	0.05	(0.17)	-0.48*	(0.27)	0.43**	(0.19)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	-0.29	(0.43)	0.32	(0.62)	0.05	(0.56)	0.93	(0.60)	0.09	(0.70)	-0.09	(0.44)
<i>Country where interview took place</i>												
=1 if wales	-0.29	(1.13)	-1.66	(1.14)	-2.07**	(1.03)	0.11	(0.64)	0.83	(1.19)	-0.34	(0.73)
=1 if nireland	-15.62	(7032.74)	-14.27	(2383.38)	-0.68	(2.06)	-14.69	(2863.97)	-14.00	(3817.66)	1.57	(2.14)
=1 if scotland	-1.39	(1.75)	-2.17	(2.11)	-0.44	(1.02)	-1.20	(0.83)	-0.29	(1.74)	2.30***	(0.89)
Time and Care												
<i>Time mother spends with child</i>												
=1 if at least just enough	-0.20	(0.16)	-0.05	(0.18)	-0.12	(0.17)	-0.23*	(0.12)	-0.12	(0.19)	-0.25*	(0.14)
<i>Childcare</i>												
=1 if formal childcare	0.22	(0.17)	-0.02	(0.19)	0.28	(0.18)	0.02	(0.26)	0.16	(0.38)	0.20	(0.27)
=1 if informal/ other childcare	0.13	(0.30)	-0.05	(0.33)	-0.03	(0.29)	0.18	(0.19)	0.39	(0.30)	0.01	(0.22)
=1 if grandparent care	0.03	(0.17)	0.00	(0.18)	0.01	(0.16)	0.15	(0.14)	0.47**	(0.20)	-0.04	(0.15)
<i>Maternal employment (t - 1)</i>												
=1 if working part-time	0.17	(0.16)	-0.11	(0.18)	-0.05	(0.16)	0.00	(0.14)	-0.22	(0.20)	0.30**	(0.15)
=1 if working full-time	-0.27	(0.42)	-0.14	(0.38)	0.16	(0.33)	-0.15	(0.34)	-0.72	(0.51)	0.24	(0.31)
<i>How long mother breastfed child</i>												
=1 if at least 6 months	-0.56**	(0.25)	-0.39	(0.25)	-0.26	(0.21)	0.04	(0.18)	-0.22	(0.29)	-0.22	(0.20)
<i>If child is naughty...</i>												

continued on next page

Table A.3.20 – continued from previous page

	Age 5						Age 7					
	# chronic		# hospital		SDQ HA		# chronic		# hospital		SDQ HA	
=1 if mother smacks child	-0.12	(0.21)	0.05	(0.22)	0.47**	(0.22)	0.79***	(0.30)	0.01	(0.55)	1.66***	(0.44)
=1 if mother tells child off	-0.09	(0.17)	-0.22	(0.18)	0.23	(0.21)	0.07	(0.12)	0.30*	(0.17)	0.79***	(0.13)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	0.14	(0.16)	-0.39**	(0.16)	-0.12	(0.15)	-0.02	(0.17)	0.10	(0.25)	-0.23	(0.19)
<i>Daily TV/ video consumption</i>												
=1 if more than 3 hours tv/ videos	0.20	(0.15)	-0.18	(0.18)	0.13	(0.16)	0.13	(0.14)	-0.32	(0.23)	0.25	(0.16)
<i>How often mother reads to the child</i>												
=1 if at least several times a week	0.32	(0.25)	0.05	(0.25)	-0.32	(0.24)	0.46	(0.28)	0.27	(0.39)	-0.42	(0.27)
Health and Health Related Behaviour												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.65***	(0.13)	0.18	(0.15)	-0.14	(0.14)	0.69***	(0.12)	0.21	(0.19)	-0.01	(0.15)
<i>Maternal mental health</i>												
=1 if high distress	0.13	(0.23)	0.15	(0.26)	0.46*	(0.26)	0.28	(0.21)	-0.17	(0.40)	0.20	(0.29)
<i>Does mother currently smoke</i>												
=1 if currently smokes	-0.03	(0.13)	-0.07	(0.15)	0.42***	(0.15)	-0.04	(0.12)	0.05	(0.17)	0.05	(0.15)
<i>How often mother drinks alcohol</i>												
=1 if at least 3 times a week	0.00	(0.20)	-0.33	(0.23)	-0.34*	(0.20)	-0.47**	(0.19)	-0.38	(0.28)	0.05	(0.18)
Hyperactivity Risk Factors												
<i>Gestational age</i>												
=1 if gestational age < 37 weeks					-0.15	(0.27)					0.33	(0.29)
<i>Maternal mental health (age 1)</i>												
=1 if increased risk of depression/ anxiety					0.07	(0.17)					0.27	(0.17)
<i>Alcohol consumption during pregnancy</i>												
=1 if 1-2 times per month					0.20	(0.25)					0.17	(0.23)
=1 if at least once a week					0.32	(0.22)					-0.18	(0.23)
<i>Smoking during pregnancy</i>												
=1 if mother smoked during pregnancy					-0.41***	(0.16)					0.17	(0.16)
<i>Smoking in the same room as child</i>												
=1 if anyone smokes in same room as child (age 1)					0.25	(0.17)					-0.03	(0.18)
=1 if anyone smokes in same room as child (age 3)					-0.01	(0.16)					0.27*	(0.16)
<i>Maternal attachment</i>												
Condon scale score					0.06	(0.06)					0.04	(0.07)
<i>Child-Parent relationship</i>												
CPRS scale score (age 3)					-0.82***	(0.07)					-0.53***	(0.07)
<i>Maltreatment of children</i>												
Straus's Conflict Tactics Scale, standardized score (age 3)					0.18**	(0.09)					0.11	(0.07)
Other												
<i>Housing tenure</i>												
=1 if council rented	0.35*	(0.20)	0.33	(0.22)	-0.07	(0.20)	0.14	(0.18)	0.29	(0.26)	-0.09	(0.20)
=1 if rented (housing association or private)/ other	0.23	(0.19)	0.17	(0.20)	0.17	(0.18)	-0.02	(0.16)	-0.15	(0.25)	0.04	(0.17)
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	0.12	(0.28)	0.32	(0.32)	-0.46*	(0.26)	-0.02	(0.22)	-0.59*	(0.31)	-0.19	(0.25)
<i>Maternal grandfathers' SES when respondent was aged 14</i>												

continued on next page

Table A.3.20 – continued from previous page

	Age 5						Age 7					
	# chronic		# hospital		SDQ HA		# chronic		# hospital		SDQ HA	
=1 if was not working	0.36	(0.23)	0.38	(0.24)	0.31	(0.22)	-0.01	(0.19)	0.10	(0.29)	0.21	(0.22)
=1 if managerial/ professional occupation	0.29	(0.22)	0.19	(0.23)	-0.01	(0.20)	-0.06	(0.18)	0.10	(0.28)	-0.21	(0.20)
=1 if technical, semi-routine or routine occupation	0.38**	(0.17)	0.21	(0.17)	0.22	(0.15)	-0.08	(0.14)	0.47**	(0.21)	-0.01	(0.15)
=1 if can't remember or father died	0.40*	(0.23)	0.43*	(0.24)	0.39*	(0.23)	-0.08	(0.21)	-0.45	(0.37)	0.28	(0.25)
=1 if at least some problems	-0.02	(0.20)	-0.17	(0.23)	-0.19	(0.22)	0.26	(0.17)	0.07	(0.28)	0.08	(0.21)
constant	-0.93	(1.62)	-1.44	(1.74)	5.14***	(1.61)	-0.72	(1.72)	2.31	(2.52)	6.47***	(1.85)
$\ln \alpha$	-1.26*	(0.71)	0.96***	(0.13)			-1.13**	(0.52)	1.09***	(0.18)		
σ_{τ}					2.00***	(0.04)					2.09***	(0.04)
N	1422.00		1422.00		1139.00		1568.00		1568.00		1254.00	
$LR_{\delta} \chi^2 (Prob > \chi^2)$	94.51	(0.00)	55.71	(0.30)	507.46	(0.00)	109.44	(0.00)	76.45	(0.01)	419.22	(0.00)
$LR_{\alpha} \chi^2 (Prob > \chi^2)$	2.57	(0.28)	279.18	(0.00)			5.06	(0.08)	125.85	(0.00)		

Note: Own calculations based on MCS. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/inattention subdomain score. * p<0.10, ** p<0.05, *** p<0.01. Standard errors in parentheses, if not stated otherwise.

Table A.3.21: ML Estimates: Health (Eq. 2, TP)

	Age 5						Age 7					
	# chronic		# hospital		SDQ HA		# chronic		# hospital		SDQ HA	
Standard Background Controls												
<i>Income</i>												
log of permanent family income (weekly, imp.)	-0.01	(0.09)	0.03	(0.10)	-0.40***	(0.08)	-0.13	(0.08)	-0.13	(0.12)	-0.35***	(0.08)
<i>Maternal education</i>												
=1 if NVQ level 1 or 2	-0.15*	(0.08)	0.05	(0.08)	0.24***	(0.07)	-0.10	(0.07)	-0.02	(0.10)	0.22***	(0.07)
=1 if NVQ level 3	-0.03	(0.09)	-0.04	(0.10)	0.23***	(0.08)	-0.07	(0.08)	-0.21*	(0.12)	0.24***	(0.08)
=1 if overseas qual. only	0.12	(0.23)	-0.32	(0.30)	0.07	(0.23)	0.18	(0.21)	0.62**	(0.28)	0.31	(0.24)
=1 if none of these	-0.25*	(0.15)	0.12	(0.15)	0.25*	(0.13)	-0.18	(0.14)	-0.18	(0.19)	0.27*	(0.14)
<i>Mother's age at birth</i>												
=1 if less than 25 years	0.01	(0.12)	0.38***	(0.12)	0.04	(0.10)	0.15	(0.11)	0.03	(0.16)	0.18*	(0.11)
=1 if 25 to 29 years	0.13	(0.09)	0.16	(0.10)	0.00	(0.08)	0.16*	(0.09)	0.09	(0.13)	-0.02	(0.09)
=1 if 30 to 34 years	0.03	(0.09)	0.11	(0.10)	-0.00	(0.08)	0.07	(0.08)	0.04	(0.12)	0.00	(0.08)
<i>Child demography</i>												
=1 if female	-0.13**	(0.06)	-0.20***	(0.06)	-0.45***	(0.05)	-0.35***	(0.06)	-0.48***	(0.08)	-0.56***	(0.05)
age (years)	0.00	(0.17)	0.49***	(0.16)	0.05	(0.14)	0.32***	(0.12)	-0.19	(0.17)	-0.47***	(0.11)
=1 if ethnicity is non-white	0.09	(0.14)	0.12	(0.15)	0.13	(0.12)	-0.02	(0.13)	-0.01	(0.18)	0.08	(0.13)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	0.38***	(0.12)	0.54***	(0.13)	0.40***	(0.15)	0.29**	(0.11)	0.04	(0.18)	0.47***	(0.15)
<i>Size of household</i>												
log of hh size incl. cm	-0.23	(0.19)	-0.52***	(0.20)	-0.47***	(0.16)	-0.23	(0.16)	-0.28	(0.23)	-0.51***	(0.16)
<i>Number of older siblings</i>												
=1 if no older siblings	-0.19**	(0.08)	-0.08	(0.08)	-0.09	(0.07)	-0.03	(0.07)	-0.02	(0.10)	-0.09	(0.07)
=1 if two or more older siblings	-0.12	(0.10)	-0.06	(0.11)	0.02	(0.09)	-0.08	(0.09)	0.10	(0.12)	0.07	(0.09)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	0.00	(0.34)	1.27**	(0.57)	0.84***	(0.31)	0.42	(0.29)	0.36	(0.38)	0.12	(0.24)
<i>Country where interview took place</i>												
=1 if wales	1.00***	(0.33)	0.77*	(0.40)	0.18	(0.32)	0.64**	(0.31)	0.41	(0.44)	-0.12	(0.28)
=1 if nireland	0.68	(0.72)	-0.42	(1.23)	-0.26	(0.88)	-0.23	(0.68)	1.35	(0.97)	-0.17	(0.67)
=1 if scotland	-0.70*	(0.42)	0.36	(0.57)	0.00	(0.42)	-0.87***	(0.31)	0.37	(0.51)	-0.16	(0.35)
Time and Care												
<i>Time mother spends with child</i>												
=1 if at least just enough	-0.02	(0.08)	-0.10	(0.08)	-0.21***	(0.07)	-0.09	(0.06)	0.19**	(0.09)	-0.24***	(0.06)
<i>Childcare</i>												
=1 if formal childcare	-0.04	(0.08)	0.11	(0.09)	-0.06	(0.07)	-0.00	(0.13)	-0.53**	(0.21)	-0.14	(0.12)
=1 if informal/ other childcare	-0.24	(0.17)	0.03	(0.16)	0.02	(0.13)	0.03	(0.11)	-0.09	(0.16)	0.11	(0.11)
=1 if grandparent care	0.01	(0.09)	-0.04	(0.09)	0.08	(0.07)	-0.12*	(0.07)	-0.04	(0.10)	-0.01	(0.06)
<i>Maternal employment (t - 1)</i>												
=1 if working part-time	-0.08	(0.07)	-0.09	(0.07)	-0.01	(0.06)	-0.07	(0.07)	0.03	(0.09)	0.04	(0.06)
=1 if working full-time	-0.08	(0.14)	-0.04	(0.14)	0.01	(0.12)	-0.01	(0.14)	0.14	(0.19)	0.16	(0.13)
<i>How long mother breastfed child</i>												
=1 if at least 6 months	0.07	(0.08)	-0.16*	(0.09)	-0.19***	(0.07)	0.10	(0.07)	-0.12	(0.11)	-0.30***	(0.07)
<i>If child is naughty...</i>												

continued on next page

Table A.3.21 – continued from previous page

	Age 5						Age 7					
	# chronic		# hospital		SDQ HA		# chronic		# hospital		SDQ HA	
=1 if mother smacks child	-0.26**	(0.11)	-0.02	(0.11)	0.06	(0.10)	-0.48*	(0.28)	0.31	(0.31)	0.25	(0.24)
=1 if mother tells child off	0.17*	(0.09)	0.07	(0.09)	0.13	(0.09)	0.07	(0.06)	-0.07	(0.08)	0.67***	(0.06)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	-0.01	(0.08)	0.01	(0.09)	-0.18**	(0.07)	-0.14	(0.10)	-0.23*	(0.14)	-0.67***	(0.10)
<i>Daily TV/ video consumption</i>												
=1 if more than 3 hours tv/ videos	0.00	(0.09)	-0.09	(0.09)	0.01	(0.08)	0.09	(0.08)	-0.06	(0.12)	0.05	(0.08)
<i>How often mother reads to the child</i>												
=1 if at least several times a week	0.07	(0.15)	0.00	(0.15)	-0.60***	(0.13)	0.06	(0.14)	-0.16	(0.19)	-0.57***	(0.14)
Health and Health Related Behaviour												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.45***	(0.07)	0.38***	(0.07)	0.03	(0.06)	0.62***	(0.06)	0.41***	(0.09)	0.02	(0.06)
<i>Maternal mental health</i>												
=1 if high distress	0.23	(0.18)	0.26	(0.20)	0.08	(0.19)	0.22	(0.16)	-0.21	(0.26)	0.69***	(0.19)
<i>Does mother currently smoke</i>												
=1 if currently smokes	0.16**	(0.07)	0.14*	(0.08)	0.05	(0.08)	0.10	(0.07)	0.22**	(0.10)	0.16*	(0.09)
<i>How often mother drinks alcohol</i>												
=1 if at least 3 times a week	-0.12	(0.08)	-0.21**	(0.09)	-0.01	(0.07)	-0.14*	(0.08)	-0.06	(0.10)	-0.02	(0.07)
Hyperactivity Risk Factors												
<i>Gestational age</i>												
=1 if gestational age < 37 weeks					0.07	(0.13)					-0.07	(0.13)
<i>Maternal mental health (age 1)</i>												
=1 if increased risk of depression/ anxiety					0.08	(0.09)					0.10	(0.09)
<i>Alcohol consumption during pregnancy</i>												
=1 if 1-2 times per month					0.08	(0.09)					-0.01	(0.10)
=1 if at least once a week					-0.03	(0.09)					-0.11	(0.09)
<i>Smoking during pregnancy</i>												
=1 if mother smoked during pregnancy					0.05	(0.09)					0.03	(0.09)
<i>Smoking in the same room as child</i>												
=1 if anyone smokes in same room as child (age 1)					0.00	(0.10)					0.22**	(0.10)
=1 if anyone smokes in same room as child (age 3)					0.13	(0.09)					0.08	(0.09)
<i>Maternal attachment</i>												
Condon scale score					-0.09***	(0.03)					-0.09***	(0.03)
<i>Child-Parent relationship</i>												
CPRS scale score (age 3)					-0.76***	(0.03)					-0.54***	(0.03)
<i>Maltreatment of children</i>												
Straus's Conflict Tactics Scale, standardized score (age 3)					0.28***	(0.04)					0.16***	(0.03)
Other												
<i>Housing tenure</i>												
=1 if council rented	0.14	(0.12)	-0.03	(0.12)	0.01	(0.11)	-0.14	(0.12)	-0.24	(0.16)	0.22*	(0.12)
=1 if rented (housing association or private)/ other	-0.01	(0.10)	-0.05	(0.11)	0.00	(0.09)	-0.02	(0.10)	-0.12	(0.14)	0.18*	(0.10)
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	0.05	(0.20)	0.08	(0.21)	0.03	(0.18)	-0.15	(0.14)	0.04	(0.21)	-0.16	(0.15)
<i>Maternal grandfathers' SES when respondent was aged 14</i>												

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Table A.3.21 – continued from previous page

	Age 5						Age 7					
	# chronic		# hospital		SDQ HA		# chronic		# hospital		SDQ HA	
=1 if was not working	-0.02	(0.13)	-0.23	(0.14)	0.09	(0.12)	0.21*	(0.12)	0.19	(0.16)	0.08	(0.12)
=1 if managerial/ professional occupation	-0.06	(0.09)	-0.16*	(0.09)	-0.19***	(0.07)	-0.06	(0.08)	-0.13	(0.11)	-0.18**	(0.08)
=1 if technical, semi-routine or routine occupation	0.01	(0.07)	-0.07	(0.08)	0.02	(0.06)	0.08	(0.07)	-0.12	(0.10)	0.06	(0.07)
=1 if can't remember or father died	-0.00	(0.14)	-0.13	(0.14)	0.17	(0.12)	0.07	(0.12)	-0.12	(0.18)	0.14	(0.12)
=1 if at least some problems	0.13	(0.13)	0.29**	(0.13)	0.31**	(0.12)	0.31***	(0.11)	0.23	(0.17)	0.17	(0.12)
constant	-1.49	(0.91)	-3.84***	(1.03)	6.79***	(0.80)	-2.21**	(0.91)	0.33	(1.31)	9.44***	(0.88)
$\ln\alpha$	-0.87***	(0.28)	0.96***	(0.07)			-0.29**	(0.14)	1.30***	(0.09)		
σ_τ					1.95***	(0.02)					2.00***	(0.02)
N	7322.00		7322.00		5962.00		7047.00		7047.00		5733.00	
$LR_\delta \chi^2 (Prob > \chi^2)$	147.72	(0.00)	232.27	(0.00)	2000.35	(0.00)	269.19	(0.00)	121.44	(0.00)	1760.93	(0.00)
$LR_\alpha \chi^2 (Prob > \chi^2)$	18.05	(0.00)	865.68	(0.00)			81.79	(0.00)	607.61	(0.00)		

Note: Own calculations based on MCS. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score. * p<0.10, ** p<0.05, *** p<0.01. Standard errors in parentheses, if not stated otherwise.

Table A.3.22: Bayesian Estimates: BAS and # Chronic Conditions (Eq. 1, LP, Age 5)

	BAS NV					BAS PC					BAS PS				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
number of health problems	-0.04	0.09	0.00	-0.05	(-0.20 0.13)	-0.14	0.08	0.00	-0.14	(-0.31 0.03)	-0.02	0.10	0.00	-0.02	(-0.20 0.18)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.11	0.07	0.00	0.11	(-0.04 0.25)	-0.03	0.08	0.00	-0.03	(-0.18 0.11)	0.06	0.08	0.00	0.06	(-0.09 0.21)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.14	0.07	0.00	-0.14	(-0.29 -0.00)	-0.14	0.07	0.00	-0.14	(-0.29 0.00)	-0.12	0.08	0.00	-0.12	(-0.27 0.02)
=1 if NVQ level 3	-0.09	0.08	0.00	-0.09	(-0.25 0.08)	-0.03	0.09	0.00	-0.03	(-0.20 0.14)	0.03	0.09	0.00	0.03	(-0.14 0.20)
=1 if overseas qual. only	-0.36	0.17	0.00	-0.36	(-0.69 -0.03)	-0.17	0.17	0.00	-0.17	(-0.51 0.17)	-0.17	0.18	0.00	-0.16	(-0.52 0.17)
=1 if none of these	-0.12	0.10	0.00	-0.12	(-0.32 0.07)	-0.17	0.10	0.00	-0.17	(-0.38 0.03)	-0.17	0.11	0.00	-0.17	(-0.38 0.04)
<i>Mother's age at birth</i>															
=1 if less than 25 years	-0.22	0.10	0.00	-0.22	(-0.42 -0.03)	-0.06	0.10	0.00	-0.06	(-0.26 0.15)	-0.13	0.11	0.00	-0.13	(-0.33 0.08)
=1 if 25 to 29 years	-0.01	0.09	0.00	-0.01	(-0.19 0.18)	-0.07	0.10	0.00	-0.07	(-0.26 0.12)	-0.08	0.10	0.00	-0.08	(-0.27 0.11)
=1 if 30 to 34 years	0.00	0.10	0.00	0.00	(-0.19 0.19)	-0.08	0.10	0.00	-0.08	(-0.27 0.11)	-0.01	0.10	0.00	-0.00	(-0.20 0.19)
<i>Child demography</i>															
=1 if female	-0.04	0.05	0.00	-0.04	(-0.14 0.06)	0.14	0.05	0.00	0.14	(0.03 0.24)	0.09	0.05	0.00	0.09	(-0.02 0.20)
age (years)	0.45	0.09	0.00	0.45	(0.27 0.64)	0.45	0.10	0.00	0.45	(0.26 0.64)	0.38	0.10	0.00	0.38	(0.19 0.57)
=1 if ethnicity is non-white	-0.21	0.10	0.00	-0.21	(-0.40 -0.01)	-0.14	0.10	0.00	-0.14	(-0.33 0.06)	0.08	0.10	0.00	0.08	(-0.12 0.28)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.04	0.10	0.00	-0.04	(-0.24 0.15)	-0.21	0.10	0.00	-0.21	(-0.41 -0.01)	-0.14	0.10	0.00	-0.14	(-0.34 0.06)
<i>Size of household</i>															
log of hh size incl. cm	-0.26	0.10	0.00	-0.26	(-0.45 -0.07)	-0.15	0.10	0.00	-0.15	(-0.35 0.05)	-0.04	0.10	0.00	-0.04	(-0.24 0.16)
<i>Number of older siblings</i>															
=1 if no older siblings	0.16	0.07	0.00	0.16	(0.02 0.30)	-0.03	0.07	0.00	-0.03	(-0.17 0.10)	0.05	0.07	0.00	0.05	(-0.08 0.19)
=1 if two or more older siblings	-0.15	0.08	0.00	-0.15	(-0.31 0.02)	-0.02	0.09	0.00	-0.02	(-0.19 0.14)	-0.06	0.09	0.00	-0.06	(-0.23 0.11)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	-0.04	0.18	0.00	-0.05	(-0.40 0.31)	0.03	0.19	0.00	0.02	(-0.34 0.39)	0.06	0.19	0.00	0.06	(-0.31 0.44)
<i>Country where interview took place</i>															
=1 if wales	-0.17	0.30	0.00	-0.17	(-0.75 0.42)	-0.01	0.30	0.00	-0.01	(-0.60 0.59)	0.28	0.31	0.00	0.28	(-0.33 0.87)
=1 if nireland	1.04	0.44	0.00	1.04	(0.17 1.91)	1.30	0.45	0.00	1.30	(0.41 2.17)	0.89	0.45	0.00	0.90	(0.01 1.78)
=1 if scotland	-0.48	0.35	0.00	-0.48	(-1.15 0.20)	0.11	0.36	0.00	0.11	(-0.59 0.81)	0.17	0.36	0.00	0.17	(-0.54 0.88)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	0.04	0.06	0.00	0.04	(-0.07 0.16)	0.03	0.06	0.00	0.03	(-0.08 0.15)	0.02	0.06	0.00	0.02	(-0.10 0.14)
<i>Childcare</i>															
=1 if formal childcare	-0.20	0.12	0.00	-0.20	(-0.44 0.03)	-0.05	0.12	0.00	-0.04	(-0.29 0.19)	-0.01	0.12	0.00	-0.01	(-0.26 0.23)
=1 if informal/ other childcare	-0.18	0.09	0.00	-0.18	(-0.36 0.00)	-0.07	0.09	0.00	-0.07	(-0.26 0.11)	0.05	0.09	0.00	0.04	(-0.14 0.23)
=1 if grandparent care	-0.00	0.06	0.00	0.00	(-0.12 0.13)	0.01	0.06	0.00	0.01	(-0.11 0.14)	-0.06	0.07	0.00	-0.06	(-0.19 0.07)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	0.14	0.07	0.00	0.14	(0.01 0.27)	0.01	0.07	0.00	0.01	(-0.12 0.15)	0.10	0.07	0.00	0.10	(-0.03 0.23)
=1 if working full-time	0.06	0.14	0.00	0.06	(-0.21 0.33)	0.05	0.14	0.00	0.05	(-0.22 0.33)	0.17	0.14	0.00	0.17	(-0.12 0.45)
<i>How long mother breastfed child</i>															

continued on next page

Table A.3.22 – continued from previous page

	BAS NV					BAS PC					BAS PS				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.04	0.09	0.00	0.04	(-0.13 0.21)	0.00	0.09	0.00	0.00	(-0.17 0.18)	-0.07	0.09	0.00	-0.07	(-0.24 0.11)
<i>If child is naughty...</i>															
=1 if mother smacks child	-0.11	0.20	0.00	-0.11	(-0.50 0.27)	-0.30	0.21	0.00	-0.30	(-0.70 0.10)	-0.26	0.21	0.00	-0.26	(-0.66 0.14)
=1 if mother tells child off	0.01	0.05	0.00	0.01	(-0.10 0.11)	-0.04	0.05	0.00	-0.04	(-0.15 0.07)	0.05	0.06	0.00	0.05	(-0.06 0.16)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.08	0.08	0.00	0.08	(-0.07 0.23)	0.14	0.08	0.00	0.14	(-0.02 0.30)	0.11	0.08	0.00	0.11	(-0.05 0.28)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	0.01	0.07	0.00	0.01	(-0.12 0.14)	0.07	0.07	0.00	0.07	(-0.07 0.21)	0.01	0.07	0.00	0.01	(-0.13 0.16)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.16	0.11	0.00	0.16	(-0.06 0.38)	0.05	0.12	0.00	0.05	(-0.17 0.28)	-0.09	0.12	0.00	-0.09	(-0.33 0.14)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.02	0.06	0.00	0.02	(-0.10 0.14)	-0.03	0.06	0.00	-0.03	(-0.15 0.09)	-0.01	0.06	0.00	-0.01	(-0.14 0.11)
<i>Maternal mental health</i>															
=1 if high distress	0.12	0.11	0.00	0.12	(-0.09 0.33)	0.06	0.11	0.00	0.06	(-0.16 0.28)	0.11	0.11	0.00	0.11	(-0.10 0.33)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.05	0.05	0.00	-0.05	(-0.15 0.06)	-0.12	0.06	0.00	-0.12	(-0.23 -0.01)	0.01	0.06	0.00	0.01	(-0.10 0.12)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	0.09	0.08	0.00	0.09	(-0.06 0.24)	-0.07	0.08	0.00	-0.07	(-0.22 0.09)	-0.05	0.08	0.00	-0.05	(-0.22 0.11)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.02	0.09	0.00	-0.02	(-0.18 0.15)	-0.28	0.09	0.00	-0.28	(-0.45 -0.11)	-0.05	0.09	0.00	-0.05	(-0.23 0.12)
=1 if rented (housing association or private)/ other	0.08	0.08	0.00	0.08	(-0.07 0.23)	-0.30	0.08	0.00	-0.30	(-0.45 -0.15)	-0.01	0.08	0.00	-0.01	(-0.16 0.15)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.09	0.11	0.00	0.09	(-0.13 0.31)	0.11	0.11	0.00	0.11	(-0.12 0.32)	0.22	0.12	0.00	0.22	(-0.01 0.45)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.21	0.09	0.00	-0.21	(-0.39 -0.04)	-0.08	0.09	0.00	-0.08	(-0.26 0.11)	-0.10	0.10	0.00	-0.11	(-0.29 0.09)
=1 if managerial/ professional occupation	0.05	0.08	0.00	0.05	(-0.12 0.21)	0.07	0.09	0.00	0.07	(-0.11 0.24)	-0.07	0.09	0.00	-0.07	(-0.25 0.10)
=1 if technical, semi-routine or routine occupation	-0.09	0.06	0.00	-0.09	(-0.21 0.04)	-0.04	0.07	0.00	-0.04	(-0.17 0.10)	-0.14	0.07	0.00	-0.14	(-0.27 -0.00)
=1 if can't remember or father died	-0.02	0.10	0.00	-0.02	(-0.20 0.17)	0.07	0.10	0.00	0.07	(-0.12 0.26)	-0.15	0.10	0.00	-0.15	(-0.34 0.04)
constant	-2.73	0.59	0.01	-2.72	(-3.88 -1.57)	-1.82	0.61	0.01	-1.82	(-3.04 -0.62)	-2.41	0.61	0.01	-2.41	(-3.63 -1.22)
σ_ϵ	0.92	0.03	0.00	0.93	(0.85 0.97)	0.95	0.03	0.00	0.95	(0.88 1.00)	0.97	0.03	0.00	0.97	(0.89 1.02)
σ_ζ	0.16	0.11	0.01	0.14	(0.03 0.41)	0.18	0.10	0.01	0.16	(0.04 0.41)	0.19	0.11	0.01	0.17	(0.05 0.43)
$\rho_{\zeta\epsilon}$	-0.22	0.53	0.04	-0.33	(-0.95 0.86)	-0.10	0.49	0.03	-0.16	(-0.85 0.90)	-0.12	0.52	0.04	-0.15	(-0.96 0.88)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.23: Bayesian Estimates: BAS and # Chronic Conditions (Eq. 1, TP, Age 5)

	BAS NV					BAS PC					BAS PS				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
number of health problems	-0.02	0.08	0.00	-0.01	(-0.20 0.10)	-0.66	0.05	0.00	-0.66	(-0.72 -0.58)	-0.03	0.07	0.00	-0.03	(-0.18 0.12)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.13	0.03	0.00	0.13	(0.07 0.20)	0.12	0.04	0.00	0.12	(0.05 0.19)	0.13	0.03	0.00	0.13	(0.06 0.20)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.18	0.03	0.00	-0.18	(-0.24 -0.13)	-0.11	0.03	0.00	-0.11	(-0.17 -0.05)	-0.04	0.03	0.00	-0.04	(-0.10 0.02)
=1 if NVQ level 3	-0.14	0.03	0.00	-0.14	(-0.20 -0.08)	-0.09	0.03	0.00	-0.09	(-0.16 -0.03)	-0.08	0.03	0.00	-0.08	(-0.15 -0.01)
=1 if overseas qual. only	-0.31	0.09	0.00	-0.30	(-0.49 -0.13)	-0.02	0.10	0.00	-0.02	(-0.21 0.17)	-0.02	0.10	0.00	-0.02	(-0.21 0.17)
=1 if none of these	-0.38	0.05	0.00	-0.38	(-0.49 -0.28)	-0.15	0.06	0.00	-0.14	(-0.27 -0.03)	-0.07	0.06	0.00	-0.07	(-0.18 0.04)
<i>Mother's age at birth</i>															
=1 if less than 25 years	-0.30	0.04	0.00	-0.30	(-0.39 -0.22)	-0.03	0.05	0.00	-0.03	(-0.12 0.06)	-0.10	0.05	0.00	-0.10	(-0.19 -0.01)
=1 if 25 to 29 years	-0.10	0.03	0.00	-0.10	(-0.16 -0.03)	0.02	0.04	0.00	0.02	(-0.05 0.09)	-0.04	0.04	0.00	-0.04	(-0.11 0.03)
=1 if 30 to 34 years	-0.02	0.03	0.00	-0.02	(-0.08 0.04)	0.02	0.03	0.00	0.02	(-0.05 0.08)	0.01	0.03	0.00	0.01	(-0.06 0.07)
<i>Child demography</i>															
=1 if female	0.06	0.02	0.00	0.06	(0.02 0.10)	0.11	0.02	0.00	0.11	(0.07 0.16)	0.09	0.02	0.00	0.09	(0.05 0.14)
age (years)	0.65	0.04	0.00	0.65	(0.57 0.74)	0.70	0.05	0.00	0.70	(0.62 0.80)	0.51	0.05	0.00	0.51	(0.42 0.60)
=1 if ethnicity is non-white	-0.42	0.05	0.00	-0.42	(-0.52 -0.32)	-0.03	0.05	0.00	-0.03	(-0.14 0.07)	-0.02	0.05	0.00	-0.02	(-0.12 0.08)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.08	0.05	0.00	-0.08	(-0.18 0.02)	-0.22	0.05	0.00	-0.21	(-0.32 -0.11)	-0.16	0.05	0.00	-0.16	(-0.26 -0.05)
<i>Size of household</i>															
log of hh size incl. cm	-0.29	0.07	0.00	-0.29	(-0.43 -0.16)	-0.24	0.07	0.00	-0.24	(-0.38 -0.09)	-0.15	0.07	0.00	-0.15	(-0.29 -0.00)
<i>Number of older siblings</i>															
=1 if no older siblings	0.19	0.03	0.00	0.19	(0.14 0.25)	-0.04	0.03	0.00	-0.04	(-0.09 0.02)	0.05	0.03	0.00	0.05	(-0.01 0.10)
=1 if two or more older siblings	-0.16	0.04	0.00	-0.16	(-0.23 -0.09)	-0.05	0.04	0.00	-0.05	(-0.12 0.03)	-0.02	0.04	0.00	-0.02	(-0.10 0.05)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	-0.06	0.10	0.00	-0.06	(-0.25 0.12)	-0.05	0.10	0.00	-0.05	(-0.25 0.15)	-0.12	0.10	0.00	-0.12	(-0.32 0.08)
<i>Country where interview took place</i>															
=1 if wales	0.10	0.11	0.00	0.10	(-0.12 0.32)	0.16	0.11	0.00	0.16	(-0.07 0.38)	0.21	0.12	0.00	0.21	(-0.02 0.44)
=1 if nireland	0.19	0.25	0.00	0.19	(-0.31 0.67)	0.37	0.26	0.00	0.37	(-0.15 0.88)	0.18	0.26	0.00	0.18	(-0.33 0.70)
=1 if scotland	0.08	0.14	0.00	0.08	(-0.19 0.35)	0.04	0.14	0.00	0.04	(-0.25 0.32)	0.24	0.15	0.00	0.24	(-0.05 0.53)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	-0.02	0.02	0.00	-0.02	(-0.07 0.03)	-0.01	0.03	0.00	-0.01	(-0.06 0.04)	-0.00	0.02	0.00	-0.00	(-0.05 0.04)
<i>Childcare</i>															
=1 if formal childcare	-0.08	0.05	0.00	-0.08	(-0.17 0.02)	0.02	0.05	0.00	0.02	(-0.08 0.12)	0.11	0.05	0.00	0.11	(0.01 0.21)
=1 if informal/ other childcare	-0.06	0.04	0.00	-0.06	(-0.15 0.02)	-0.01	0.04	0.00	-0.01	(-0.10 0.07)	0.00	0.05	0.00	0.01	(-0.08 0.09)
=1 if grandparent care	0.01	0.03	0.00	0.01	(-0.04 0.06)	-0.01	0.03	0.00	-0.01	(-0.06 0.05)	0.06	0.03	0.00	0.06	(0.00 0.11)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	0.01	0.02	0.00	0.01	(-0.04 0.05)	-0.05	0.03	0.00	-0.05	(-0.10 -0.00)	0.03	0.03	0.00	0.03	(-0.03 0.08)
=1 if working full-time	-0.02	0.05	0.00	-0.02	(-0.12 0.08)	0.01	0.06	0.00	0.01	(-0.10 0.12)	0.06	0.06	0.00	0.06	(-0.05 0.17)
<i>How long mother breastfed child</i>															

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Table A.3.23 – continued from previous page

	BAS NV					BAS PC					BAS PS				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.12	0.03	0.00	0.12	(0.07 0.18)	0.03	0.03	0.00	0.03	(-0.03 0.10)	0.08	0.03	0.00	0.08	(0.02 0.14)
<i>If child is naughty...</i>															
=1 if mother smacks child	0.00	0.09	0.00	0.00	(-0.19 0.18)	0.01	0.10	0.00	0.01	(-0.18 0.20)	-0.07	0.10	0.00	-0.07	(-0.26 0.12)
=1 if mother tells child off	0.01	0.02	0.00	0.01	(-0.03 0.05)	-0.02	0.02	0.00	-0.02	(-0.07 0.02)	-0.02	0.02	0.00	-0.02	(-0.07 0.02)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.15	0.04	0.00	0.15	(0.07 0.23)	0.09	0.04	0.00	0.09	(0.01 0.17)	0.13	0.04	0.00	0.13	(0.05 0.21)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.02	0.03	0.00	-0.02	(-0.08 0.05)	-0.14	0.03	0.00	-0.14	(-0.21 -0.08)	-0.08	0.03	0.00	-0.08	(-0.15 -0.02)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.15	0.05	0.00	0.15	(0.04 0.25)	0.04	0.06	0.00	0.04	(-0.07 0.15)	0.05	0.06	0.00	0.05	(-0.06 0.16)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.02	0.03	0.00	0.01	(-0.04 0.07)	0.01	0.03	0.00	0.01	(-0.04 0.07)	0.01	0.03	0.00	0.01	(-0.04 0.07)
<i>Maternal mental health</i>															
=1 if high distress	-0.09	0.08	0.00	-0.09	(-0.24 0.06)	-0.02	0.08	0.00	-0.02	(-0.17 0.13)	-0.09	0.08	0.00	-0.09	(-0.25 0.06)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.03	0.03	0.00	0.03	(-0.03 0.08)	-0.02	0.03	0.00	-0.02	(-0.07 0.04)	0.00	0.03	0.00	0.00	(-0.06 0.06)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	0.06	0.03	0.00	0.06	(0.01 0.12)	0.02	0.03	0.00	0.02	(-0.04 0.08)	0.08	0.03	0.00	0.08	(0.02 0.14)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.14	0.05	0.00	-0.14	(-0.23 -0.05)	-0.14	0.05	0.00	-0.14	(-0.23 -0.04)	-0.09	0.05	0.00	-0.09	(-0.18 0.01)
=1 if rented (housing association or private)/ other	-0.03	0.04	0.00	-0.02	(-0.10 0.05)	0.01	0.04	0.00	0.01	(-0.07 0.09)	-0.02	0.04	0.00	-0.02	(-0.10 0.06)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.15	0.06	0.00	0.15	(0.03 0.26)	0.09	0.06	0.00	0.08	(-0.03 0.20)	0.08	0.06	0.00	0.08	(-0.04 0.20)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.09	0.05	0.00	-0.09	(-0.18 0.01)	-0.16	0.05	0.00	-0.16	(-0.26 -0.06)	-0.07	0.05	0.00	-0.07	(-0.17 0.03)
=1 if managerial/ professional occupation	0.09	0.03	0.00	0.09	(0.03 0.15)	0.02	0.03	0.00	0.02	(-0.05 0.08)	0.06	0.03	0.00	0.06	(-0.00 0.13)
=1 if technical, semi-routine or routine occupation	-0.02	0.03	0.00	-0.02	(-0.07 0.04)	-0.03	0.03	0.00	-0.03	(-0.09 0.03)	-0.04	0.03	0.00	-0.04	(-0.10 0.02)
=1 if can't remember or father died	-0.02	0.05	0.00	-0.02	(-0.12 0.08)	-0.09	0.05	0.00	-0.10	(-0.19 0.01)	-0.06	0.05	0.00	-0.06	(-0.16 0.05)
constant	-4.01	0.33	0.00	-4.01	(-4.66 -3.35)	-3.92	0.37	0.01	-3.92	(-4.64 -3.21)	-3.49	0.35	0.00	-3.49	(-4.18 -2.78)
σ_ϵ	0.89	0.02	0.00	0.90	(0.82 0.92)	0.62	0.04	0.00	0.61	(0.55 0.68)	0.96	0.02	0.00	0.96	(0.91 0.98)
σ_ζ	0.17	0.08	0.02	0.14	(0.08 0.41)	0.78	0.05	0.00	0.79	(0.72 0.84)	0.11	0.09	0.03	0.09	(0.02 0.33)
$\rho_{\zeta\epsilon}$	-0.19	0.54	0.10	-0.25	(-0.96 0.77)	0.99	0.02	0.00	0.99	(0.94 1.00)	-0.24	0.57	0.12	-0.33	(-0.97 0.80)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.24: Bayesian Estimates: BAS and # Chronic Conditions (Eq. 2, LP, Age 5)

	BAS NV					BAS PC					BAS PS							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Standard Background Controls																		
<i>Income</i>																		
log of permanent family income (weekly, imp.)	-0.14	0.18	0.01	-0.14	(-0.49	0.20)	-0.14	0.18	0.01	-0.14	(-0.48	0.21)	-0.12	0.17	0.01	-0.12	(-0.47	0.22)
<i>Maternal education</i>																		
=1 if NVQ level 1 or 2	-0.03	0.20	0.00	-0.03	(-0.42	0.38)	-0.03	0.21	0.00	-0.03	(-0.44	0.37)	-0.03	0.21	0.00	-0.03	(-0.42	0.38)
=1 if NVQ level 3	0.07	0.24	0.00	0.07	(-0.39	0.54)	0.07	0.24	0.00	0.07	(-0.40	0.54)	0.08	0.24	0.00	0.08	(-0.39	0.54)
=1 if overseas qual. only	-0.50	0.50	0.01	-0.49	(-1.54	0.43)	-0.49	0.51	0.01	-0.48	(-1.52	0.47)	-0.48	0.51	0.01	-0.47	(-1.53	0.44)
=1 if none of these	-0.19	0.28	0.00	-0.20	(-0.75	0.35)	-0.19	0.28	0.00	-0.19	(-0.74	0.35)	-0.19	0.28	0.00	-0.19	(-0.73	0.36)
<i>Mother's age at birth</i>																		
=1 if less than 25 years	-0.02	0.27	0.00	-0.02	(-0.53	0.51)	-0.02	0.27	0.00	-0.02	(-0.54	0.51)	-0.02	0.27	0.00	-0.02	(-0.54	0.53)
=1 if 25 to 29 years	-0.04	0.25	0.00	-0.05	(-0.53	0.44)	-0.05	0.25	0.00	-0.05	(-0.52	0.44)	-0.05	0.25	0.00	-0.05	(-0.54	0.45)
=1 if 30 to 34 years	-0.05	0.25	0.00	-0.05	(-0.54	0.46)	-0.05	0.25	0.00	-0.05	(-0.54	0.45)	-0.05	0.26	0.00	-0.05	(-0.55	0.45)
<i>Child demography</i>																		
=1 if female	-0.40	0.15	0.00	-0.40	(-0.69	-0.11)	-0.40	0.15	0.00	-0.40	(-0.68	-0.11)	-0.39	0.14	0.00	-0.39	(-0.68	-0.12)
age (years)	-0.31	0.30	0.02	-0.31	(-0.90	0.26)	-0.27	0.30	0.02	-0.27	(-0.88	0.32)	-0.31	0.28	0.01	-0.31	(-0.87	0.23)
=1 if ethnicity is non-white	0.18	0.25	0.00	0.19	(-0.32	0.67)	0.18	0.25	0.00	0.18	(-0.32	0.65)	0.19	0.25	0.00	0.19	(-0.31	0.66)
<i>Child's health endowment</i>																		
=1 if birth weight < 2500g	0.13	0.26	0.00	0.13	(-0.38	0.64)	0.13	0.26	0.00	0.14	(-0.38	0.62)	0.13	0.25	0.00	0.14	(-0.37	0.63)
<i>Size of household</i>																		
log of hh size incl. cm	-0.22	0.28	0.01	-0.22	(-0.77	0.33)	-0.23	0.28	0.01	-0.23	(-0.78	0.31)	-0.23	0.27	0.01	-0.23	(-0.78	0.31)
<i>Number of older siblings</i>																		
=1 if no older siblings	-0.56	0.19	0.00	-0.56	(-0.93	-0.19)	-0.57	0.19	0.00	-0.56	(-0.93	-0.20)	-0.56	0.19	0.00	-0.56	(-0.93	-0.20)
=1 if two or more older siblings	-0.09	0.22	0.00	-0.09	(-0.54	0.35)	-0.09	0.22	0.00	-0.09	(-0.53	0.34)	-0.09	0.22	0.00	-0.09	(-0.53	0.34)
<i>Respondent's relationship to child</i>																		
=1 if natural mother of child	-0.29	0.45	0.01	-0.29	(-1.17	0.61)	-0.31	0.45	0.01	-0.32	(-1.16	0.59)	-0.31	0.46	0.01	-0.32	(-1.17	0.62)
<i>Country where interview took place</i>																		
=1 if wales	-0.05	0.55	0.01	-0.05	(-1.14	1.03)	-0.04	0.55	0.01	-0.03	(-1.13	1.03)	-0.06	0.55	0.01	-0.06	(-1.17	1.01)
=1 if nireland	-0.36	0.61	0.01	-0.37	(-1.57	0.82)	-0.36	0.61	0.01	-0.36	(-1.55	0.83)	-0.36	0.61	0.01	-0.36	(-1.56	0.82)
=1 if scotland	-0.06	0.56	0.01	-0.06	(-1.14	1.04)	-0.06	0.55	0.01	-0.06	(-1.16	1.02)	-0.06	0.55	0.01	-0.07	(-1.16	1.02)
Time and Care																		
<i>Time mother spends with child</i>																		
=1 if at least just enough	-0.19	0.19	0.00	-0.20	(-0.56	0.18)	-0.20	0.19	0.00	-0.19	(-0.56	0.17)	-0.19	0.18	0.00	-0.19	(-0.55	0.18)
<i>Childcare</i>																		
=1 if formal childcare	0.22	0.20	0.00	0.22	(-0.18	0.60)	0.21	0.20	0.00	0.21	(-0.18	0.60)	0.21	0.20	0.00	0.21	(-0.18	0.60)
=1 if informal/ other childcare	0.15	0.33	0.00	0.16	(-0.53	0.78)	0.14	0.33	0.00	0.15	(-0.53	0.78)	0.15	0.33	0.00	0.15	(-0.53	0.78)
=1 if grandparent care	0.06	0.20	0.00	0.05	(-0.34	0.44)	0.04	0.20	0.00	0.04	(-0.35	0.43)	0.05	0.20	0.00	0.05	(-0.34	0.43)
<i>Maternal employment (t - 1)</i>																		
=1 if working part-time	0.16	0.18	0.00	0.16	(-0.19	0.51)	0.17	0.18	0.00	0.17	(-0.17	0.51)	0.16	0.18	0.00	0.16	(-0.19	0.51)
=1 if working full-time	-0.26	0.43	0.00	-0.25	(-1.14	0.54)	-0.25	0.43	0.00	-0.24	(-1.12	0.56)	-0.26	0.43	0.00	-0.25	(-1.12	0.55)
<i>How long mother breastfed child</i>																		
=1 if at least 6 months	-0.60	0.28	0.00	-0.59	(-1.17	-0.07)	-0.60	0.27	0.00	-0.60	(-1.15	-0.07)	-0.60	0.28	0.00	-0.59	(-1.15	-0.07)
<i>If child is naughty...</i>																		

continued on next page

Table A.3.24 – continued from previous page

	BAS NV					BAS PC					BAS PS				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.14	0.24	0.00	-0.14	(-0.62 0.32)	-0.14	0.24	0.00	-0.13	(-0.62 0.33)	-0.13	0.24	0.00	-0.13	(-0.61 0.33)
=1 if mother tells child off	-0.09	0.19	0.00	-0.09	(-0.46 0.29)	-0.10	0.19	0.00	-0.10	(-0.47 0.28)	-0.10	0.20	0.00	-0.10	(-0.47 0.30)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.15	0.18	0.00	0.15	(-0.20 0.52)	0.15	0.18	0.00	0.15	(-0.20 0.51)	0.15	0.18	0.00	0.15	(-0.21 0.51)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	0.18	0.18	0.00	0.18	(-0.18 0.53)	0.19	0.18	0.00	0.19	(-0.15 0.54)	0.19	0.18	0.00	0.19	(-0.16 0.54)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.36	0.28	0.00	0.35	(-0.17 0.93)	0.34	0.28	0.00	0.33	(-0.19 0.89)	0.34	0.28	0.00	0.34	(-0.19 0.90)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.70	0.15	0.00	0.70	(0.40 1.00)	0.70	0.15	0.00	0.70	(0.41 1.00)	0.70	0.15	0.00	0.70	(0.40 0.99)
<i>Maternal mental health</i>															
=1 if high distress	0.11	0.27	0.00	0.11	(-0.41 0.63)	0.12	0.26	0.00	0.12	(-0.40 0.64)	0.12	0.26	0.00	0.12	(-0.40 0.63)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.05	0.15	0.00	-0.05	(-0.35 0.25)	-0.05	0.15	0.00	-0.05	(-0.34 0.26)	-0.05	0.16	0.00	-0.05	(-0.35 0.26)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	0.03	0.23	0.00	0.03	(-0.44 0.47)	0.02	0.23	0.00	0.02	(-0.44 0.46)	0.02	0.23	0.00	0.02	(-0.43 0.46)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.29	0.22	0.00	0.29	(-0.14 0.71)	0.28	0.22	0.00	0.28	(-0.15 0.70)	0.29	0.22	0.00	0.28	(-0.14 0.72)
=1 if rented (housing association or private)/ other	0.18	0.20	0.00	0.17	(-0.22 0.57)	0.17	0.21	0.00	0.17	(-0.23 0.58)	0.18	0.20	0.00	0.18	(-0.22 0.58)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.11	0.30	0.00	0.10	(-0.47 0.72)	0.10	0.30	0.01	0.10	(-0.47 0.71)	0.11	0.30	0.00	0.11	(-0.47 0.71)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.30	0.25	0.00	0.30	(-0.18 0.79)	0.30	0.25	0.00	0.30	(-0.21 0.79)	0.30	0.25	0.00	0.30	(-0.20 0.79)
=1 if managerial/ professional occupation	0.24	0.24	0.00	0.24	(-0.25 0.72)	0.24	0.24	0.00	0.24	(-0.25 0.72)	0.24	0.24	0.00	0.24	(-0.24 0.71)
=1 if technical, semi-routine or routine occupation	0.33	0.18	0.00	0.34	(-0.03 0.69)	0.33	0.18	0.00	0.33	(-0.02 0.69)	0.33	0.18	0.00	0.33	(-0.02 0.69)
=1 if can't remember or father died	0.32	0.26	0.00	0.31	(-0.18 0.82)	0.31	0.26	0.00	0.31	(-0.20 0.82)	0.31	0.26	0.00	0.31	(-0.20 0.80)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	-0.03	0.23	0.00	-0.03	(-0.50 0.41)	-0.03	0.23	0.00	-0.02	(-0.50 0.42)	-0.03	0.23	0.00	-0.03	(-0.49 0.42)
constant	-0.36	0.86	0.04	-0.36	(-2.04 1.35)	-0.39	0.86	0.04	-0.41	(-2.05 1.39)	-0.39	0.87	0.04	-0.37	(-2.12 1.29)
α	8.40	6.20	0.30	6.63	(2.37 26.29)	8.02	6.20	0.32	6.28	(2.22 23.60)	8.03	5.75	0.27	6.38	(2.39 23.32)
$\ln\alpha$	1.93	0.60	0.03	1.89	(0.86 3.27)	1.88	0.61	0.03	1.84	(0.80 3.16)	1.90	0.59	0.03	1.85	(0.87 3.15)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.25: Bayesian Estimates: BAS and # Chronic Conditions (Eq. 2, TP, Age 5)

	BAS NV					BAS PC					BAS PS					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls																
<i>Income</i>																
log of permanent family income (weekly, imp.)	-0.07	0.09	0.01	-0.07	(-0.24 0.10)	-0.08	0.09	0.01	-0.07	(-0.26 0.09)	-0.07	0.08	0.00	-0.07	(-0.24 0.09)	
<i>Maternal education</i>																
=1 if NVQ level 1 or 2	-0.18	0.09	0.00	-0.18	(-0.35 -0.01)	-0.19	0.09	0.00	-0.19	(-0.36 -0.02)	-0.18	0.09	0.00	-0.18	(-0.35 -0.01)	
=1 if NVQ level 3	-0.05	0.10	0.00	-0.05	(-0.24 0.14)	-0.05	0.09	0.00	-0.05	(-0.23 0.13)	-0.05	0.10	0.00	-0.05	(-0.24 0.14)	
=1 if overseas qual. only	0.09	0.25	0.00	0.09	(-0.43 0.56)	0.05	0.24	0.00	0.05	(-0.45 0.50)	0.09	0.25	0.00	0.09	(-0.42 0.56)	
=1 if none of these	-0.28	0.16	0.00	-0.29	(-0.60 0.03)	-0.36	0.16	0.00	-0.36	(-0.68 -0.05)	-0.29	0.16	0.00	-0.28	(-0.61 0.03)	
<i>Mother's age at birth</i>																
=1 if less than 25 years	-0.01	0.13	0.00	-0.01	(-0.27 0.24)	0.00	0.13	0.00	0.00	(-0.25 0.25)	-0.01	0.13	0.00	-0.01	(-0.26 0.24)	
=1 if 25 to 29 years	0.11	0.10	0.00	0.11	(-0.08 0.32)	0.12	0.10	0.00	0.12	(-0.08 0.32)	0.11	0.10	0.00	0.11	(-0.09 0.31)	
=1 if 30 to 34 years	0.02	0.10	0.00	0.02	(-0.17 0.21)	0.05	0.09	0.00	0.05	(-0.14 0.23)	0.02	0.10	0.00	0.02	(-0.17 0.21)	
<i>Child demography</i>																
=1 if female	-0.13	0.07	0.00	-0.13	(-0.26 0.00)	-0.11	0.06	0.00	-0.11	(-0.23 0.02)	-0.13	0.07	0.00	-0.13	(-0.26 0.00)	
age (years)	-0.08	0.17	0.01	-0.08	(-0.42 0.24)	-0.04	0.15	0.01	-0.04	(-0.35 0.27)	-0.10	0.16	0.01	-0.10	(-0.41 0.21)	
=1 if ethnicity is non-white	0.07	0.15	0.00	0.07	(-0.22 0.37)	0.04	0.14	0.00	0.04	(-0.24 0.32)	0.07	0.15	0.00	0.08	(-0.22 0.36)	
<i>Child's health endowment</i>																
=1 if birth weight < 2500g	0.40	0.13	0.00	0.40	(0.13 0.65)	0.36	0.13	0.00	0.36	(0.10 0.61)	0.40	0.13	0.00	0.40	(0.13 0.65)	
<i>Size of household</i>																
log of hh size incl. cm	-0.26	0.20	0.01	-0.26	(-0.66 0.13)	-0.24	0.19	0.01	-0.25	(-0.62 0.15)	-0.26	0.20	0.01	-0.27	(-0.65 0.14)	
<i>Number of older siblings</i>																
=1 if no older siblings	-0.21	0.08	0.00	-0.21	(-0.38 -0.04)	-0.20	0.08	0.00	-0.20	(-0.36 -0.04)	-0.21	0.09	0.00	-0.21	(-0.37 -0.04)	
=1 if two or more older siblings	-0.13	0.11	0.00	-0.13	(-0.34 0.07)	-0.13	0.10	0.00	-0.13	(-0.34 0.07)	-0.13	0.11	0.00	-0.13	(-0.35 0.08)	
<i>Respondent's relationship to child</i>																
=1 if natural mother of child	-0.13	0.33	0.01	-0.14	(-0.76 0.53)	-0.24	0.30	0.01	-0.25	(-0.81 0.38)	-0.13	0.33	0.01	-0.14	(-0.73 0.53)	
<i>Country where interview took place</i>																
=1 if wales	0.72	0.32	0.01	0.72	(0.08 1.35)	0.48	0.31	0.01	0.48	(-0.12 1.08)	0.73	0.32	0.01	0.72	(0.10 1.37)	
=1 if nireland	0.09	0.49	0.01	0.09	(-0.89 1.02)	0.05	0.48	0.01	0.07	(-0.90 0.96)	0.09	0.50	0.01	0.09	(-0.89 1.04)	
=1 if scotland	-0.52	0.38	0.01	-0.52	(-1.26 0.23)	-0.51	0.38	0.01	-0.51	(-1.26 0.25)	-0.52	0.40	0.01	-0.53	(-1.28 0.27)	
Time and Care																
<i>Time mother spends with child</i>																
=1 if at least just enough	-0.03	0.08	0.00	-0.03	(-0.19 0.14)	-0.01	0.08	0.00	-0.02	(-0.17 0.14)	-0.03	0.08	0.00	-0.03	(-0.20 0.14)	
<i>Childcare</i>																
=1 if formal childcare	-0.03	0.09	0.00	-0.03	(-0.21 0.15)	-0.03	0.08	0.00	-0.03	(-0.20 0.13)	-0.03	0.09	0.00	-0.03	(-0.21 0.15)	
=1 if informal/ other childcare	-0.27	0.18	0.00	-0.26	(-0.63 0.09)	-0.26	0.18	0.00	-0.26	(-0.61 0.08)	-0.26	0.19	0.00	-0.26	(-0.63 0.09)	
=1 if grandparent care	0.01	0.09	0.00	0.01	(-0.17 0.19)	0.03	0.09	0.00	0.03	(-0.14 0.20)	0.01	0.09	0.00	0.01	(-0.17 0.19)	
<i>Maternal employment (t - 1)</i>																
=1 if working part-time	-0.07	0.08	0.00	-0.07	(-0.22 0.08)	-0.05	0.07	0.00	-0.05	(-0.19 0.09)	-0.07	0.08	0.00	-0.07	(-0.22 0.08)	
=1 if working full-time	-0.07	0.15	0.00	-0.07	(-0.37 0.22)	-0.03	0.14	0.00	-0.03	(-0.31 0.24)	-0.07	0.15	0.00	-0.07	(-0.37 0.23)	
<i>How long mother breastfed child</i>																
=1 if at least 6 months	0.07	0.09	0.00	0.07	(-0.10 0.24)	0.08	0.08	0.00	0.08	(-0.09 0.24)	0.07	0.09	0.00	0.07	(-0.10 0.23)	
<i>If child is naughty...</i>																

continued on next page

Table A.3.25 – continued from previous page

	BAS NV					BAS PC					BAS PS				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.28	0.12	0.00	-0.28	(-0.53 -0.05)	-0.17	0.11	0.00	-0.17	(-0.41 0.04)	-0.29	0.12	0.00	-0.28	(-0.52 -0.05)
=1 if mother tells child off	0.18	0.10	0.00	0.18	(-0.01 0.37)	0.09	0.09	0.00	0.09	(-0.09 0.27)	0.18	0.09	0.00	0.17	(-0.01 0.36)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	-0.01	0.09	0.00	-0.01	(-0.18 0.17)	-0.06	0.08	0.00	-0.06	(-0.21 0.11)	-0.00	0.09	0.00	-0.01	(-0.18 0.17)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.01	0.10	0.00	-0.01	(-0.20 0.17)	0.01	0.09	0.00	0.01	(-0.16 0.19)	-0.01	0.09	0.00	-0.01	(-0.20 0.17)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.06	0.16	0.00	0.05	(-0.25 0.38)	0.02	0.15	0.00	0.02	(-0.27 0.32)	0.05	0.16	0.00	0.05	(-0.25 0.37)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.46	0.07	0.00	0.46	(0.31 0.61)	0.41	0.07	0.00	0.41	(0.27 0.55)	0.46	0.07	0.00	0.46	(0.32 0.61)
<i>Maternal mental health</i>															
=1 if high distress	0.21	0.20	0.00	0.21	(-0.21 0.60)	0.19	0.18	0.00	0.19	(-0.18 0.55)	0.22	0.20	0.00	0.22	(-0.19 0.61)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.16	0.08	0.00	0.16	(0.00 0.32)	0.15	0.08	0.00	0.15	(-0.00 0.30)	0.16	0.08	0.00	0.16	(0.00 0.32)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.13	0.09	0.00	-0.13	(-0.31 0.05)	-0.12	0.09	0.00	-0.12	(-0.29 0.05)	-0.13	0.09	0.00	-0.13	(-0.31 0.05)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.13	0.13	0.00	0.13	(-0.12 0.38)	0.09	0.12	0.00	0.08	(-0.15 0.32)	0.12	0.12	0.00	0.12	(-0.12 0.37)
=1 if rented (housing association or private)/ other	-0.01	0.11	0.00	-0.01	(-0.24 0.21)	0.02	0.11	0.00	0.02	(-0.19 0.24)	-0.01	0.11	0.00	-0.01	(-0.23 0.21)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.02	0.21	0.01	0.02	(-0.39 0.45)	0.04	0.20	0.00	0.03	(-0.34 0.45)	0.01	0.22	0.01	0.00	(-0.40 0.45)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.02	0.15	0.00	-0.02	(-0.31 0.26)	-0.01	0.14	0.00	-0.01	(-0.29 0.26)	-0.02	0.15	0.00	-0.02	(-0.31 0.26)
=1 if managerial/ professional occupation	-0.06	0.09	0.00	-0.06	(-0.24 0.13)	-0.06	0.09	0.00	-0.06	(-0.24 0.12)	-0.06	0.09	0.00	-0.06	(-0.24 0.13)
=1 if technical, semi-routine or routine occupation	0.02	0.08	0.00	0.02	(-0.14 0.18)	0.00	0.08	0.00	0.00	(-0.15 0.16)	0.02	0.08	0.00	0.02	(-0.14 0.18)
=1 if can't remember or father died	0.00	0.15	0.00	0.01	(-0.29 0.29)	-0.03	0.14	0.00	-0.03	(-0.32 0.25)	-0.00	0.15	0.00	0.00	(-0.30 0.28)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	0.13	0.14	0.00	0.13	(-0.15 0.40)	0.09	0.13	0.00	0.09	(-0.17 0.34)	0.12	0.14	0.00	0.12	(-0.17 0.40)
constant	-1.13	0.68	0.05	-1.14	(-2.48 0.24)	-0.98	0.69	0.05	-1.01	(-2.25 0.43)	-1.03	0.68	0.05	-1.01	(-2.39 0.23)
α	21.75	11.98	1.11	19.19	(8.21 51.14)	25.76	13.01	1.16	22.58	(10.14 57.54)	20.33	11.53	1.10	17.58	(7.26 50.62)
$\ln\alpha$	2.96	0.47	0.04	2.95	(2.11 3.93)	3.14	0.45	0.04	3.12	(2.32 4.05)	2.88	0.50	0.05	2.87	(1.98 3.92)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.26: Bayesian Estimates: BAS and # Hospital Admissions (Eq. 1, LP, Age 5)

	BAS NV					BAS PC					BAS PS				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
number of hospital admissions	-0.05	0.05	0.00	-0.05	(-0.16 0.05)	-0.09	0.05	0.00	-0.08	(-0.19 -0.00)	-0.06	0.06	0.00	-0.06	(-0.18 0.04)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.11	0.07	0.00	0.11	(-0.04 0.25)	-0.04	0.07	0.00	-0.04	(-0.18 0.11)	0.05	0.08	0.00	0.05	(-0.10 0.20)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.15	0.07	0.00	-0.15	(-0.29 -0.00)	-0.15	0.08	0.00	-0.15	(-0.30 -0.00)	-0.13	0.08	0.00	-0.13	(-0.28 0.02)
=1 if NVQ level 3	-0.09	0.08	0.00	-0.09	(-0.25 0.07)	-0.03	0.09	0.00	-0.02	(-0.19 0.14)	0.03	0.09	0.00	0.03	(-0.14 0.20)
=1 if overseas qual. only	-0.36	0.17	0.00	-0.36	(-0.70 -0.03)	-0.17	0.18	0.00	-0.17	(-0.52 0.17)	-0.17	0.18	0.00	-0.17	(-0.52 0.18)
=1 if none of these	-0.13	0.10	0.00	-0.13	(-0.34 0.07)	-0.18	0.11	0.00	-0.18	(-0.39 0.02)	-0.18	0.11	0.00	-0.18	(-0.39 0.03)
<i>Mother's age at birth</i>															
=1 if less than 25 years	-0.22	0.10	0.00	-0.22	(-0.42 -0.02)	-0.05	0.11	0.00	-0.05	(-0.26 0.16)	-0.12	0.11	0.00	-0.13	(-0.33 0.08)
=1 if 25 to 29 years	-0.00	0.09	0.00	0.00	(-0.19 0.18)	-0.06	0.10	0.00	-0.06	(-0.25 0.13)	-0.08	0.10	0.00	-0.08	(-0.27 0.12)
=1 if 30 to 34 years	0.01	0.10	0.00	0.01	(-0.19 0.20)	-0.07	0.10	0.00	-0.08	(-0.27 0.12)	-0.00	0.10	0.00	-0.00	(-0.20 0.20)
<i>Child demography</i>															
=1 if female	-0.04	0.05	0.00	-0.04	(-0.14 0.06)	0.14	0.05	0.00	0.14	(0.03 0.24)	0.08	0.05	0.00	0.08	(-0.02 0.19)
age (years)	0.46	0.09	0.00	0.46	(0.28 0.65)	0.47	0.10	0.00	0.48	(0.29 0.66)	0.39	0.10	0.00	0.39	(0.20 0.58)
=1 if ethnicity is non-white	-0.21	0.10	0.00	-0.21	(-0.40 -0.02)	-0.15	0.10	0.00	-0.15	(-0.35 0.04)	0.07	0.10	0.00	0.07	(-0.13 0.27)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.04	0.10	0.00	-0.03	(-0.23 0.15)	-0.20	0.10	0.00	-0.20	(-0.39 -0.00)	-0.12	0.10	0.00	-0.12	(-0.32 0.08)
<i>Size of household</i>															
log of hh size incl. cm	-0.26	0.10	0.00	-0.26	(-0.46 -0.07)	-0.15	0.10	0.00	-0.15	(-0.35 0.04)	-0.04	0.10	0.00	-0.04	(-0.24 0.16)
<i>Number of older siblings</i>															
=1 if no older siblings	0.16	0.07	0.00	0.16	(0.03 0.29)	-0.03	0.07	0.00	-0.03	(-0.16 0.11)	0.05	0.07	0.00	0.05	(-0.08 0.19)
=1 if two or more older siblings	-0.14	0.08	0.00	-0.14	(-0.31 0.02)	-0.01	0.08	0.00	-0.01	(-0.18 0.15)	-0.06	0.09	0.00	-0.06	(-0.23 0.12)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	-0.05	0.18	0.00	-0.04	(-0.41 0.32)	0.01	0.19	0.00	0.01	(-0.35 0.37)	0.06	0.19	0.00	0.06	(-0.31 0.43)
<i>Country where interview took place</i>															
=1 if wales	-0.19	0.30	0.00	-0.19	(-0.78 0.39)	-0.07	0.31	0.00	-0.07	(-0.67 0.52)	0.25	0.31	0.00	0.25	(-0.33 0.86)
=1 if nireland	1.06	0.45	0.00	1.06	(0.19 1.94)	1.33	0.45	0.00	1.33	(0.47 2.21)	0.90	0.45	0.00	0.90	(0.03 1.79)
=1 if scotland	-0.49	0.35	0.00	-0.49	(-1.18 0.20)	0.10	0.35	0.00	0.09	(-0.60 0.78)	0.17	0.36	0.00	0.17	(-0.55 0.87)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	0.05	0.06	0.00	0.05	(-0.07 0.16)	0.04	0.06	0.00	0.04	(-0.08 0.16)	0.03	0.06	0.00	0.03	(-0.09 0.14)
<i>Childcare</i>															
=1 if formal childcare	-0.20	0.12	0.00	-0.20	(-0.44 0.03)	-0.05	0.12	0.00	-0.05	(-0.28 0.20)	-0.01	0.12	0.00	-0.01	(-0.26 0.23)
=1 if informal/ other childcare	-0.18	0.09	0.00	-0.18	(-0.36 -0.00)	-0.09	0.09	0.00	-0.09	(-0.27 0.09)	0.04	0.10	0.00	0.05	(-0.14 0.23)
=1 if grandparent care	-0.00	0.06	0.00	-0.00	(-0.13 0.12)	0.01	0.07	0.00	0.01	(-0.12 0.14)	-0.06	0.07	0.00	-0.06	(-0.19 0.07)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	0.14	0.07	0.00	0.14	(0.01 0.26)	0.01	0.07	0.00	0.01	(-0.12 0.14)	0.10	0.07	0.00	0.10	(-0.04 0.23)
=1 if working full-time	0.06	0.14	0.00	0.06	(-0.20 0.33)	0.06	0.14	0.00	0.06	(-0.21 0.33)	0.17	0.14	0.00	0.17	(-0.11 0.45)
<i>How long mother breastfed child</i>															

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Table A.3.26 – continued from previous page

	BAS NV					BAS PC					BAS PS							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
=1 if at least 6 months	0.04	0.09	0.00	0.04	(-0.12	0.21)	0.01	0.09	0.00	0.01	(-0.16	0.19)	-0.07	0.09	0.00	-0.07	(-0.25	0.10)
<i>If child is naughty...</i>																		
=1 if mother smacks child	-0.12	0.20	0.00	-0.12	(-0.51	0.27)	-0.29	0.20	0.00	-0.29	(-0.68	0.11)	-0.26	0.21	0.00	-0.26	(-0.67	0.15)
=1 if mother tells child off	0.00	0.05	0.00	0.00	(-0.10	0.10)	-0.05	0.05	0.00	-0.05	(-0.16	0.06)	0.05	0.05	0.00	0.05	(-0.06	0.16)
<i>Bedtime on term-time weekdays</i>																		
=1 if regular bedtime	0.08	0.08	0.00	0.08	(-0.07	0.23)	0.14	0.08	0.00	0.14	(-0.02	0.30)	0.11	0.08	0.00	0.11	(-0.05	0.27)
<i>Daily TV/ video consumption</i>																		
=1 if more than 3 hours tv/ videos	0.01	0.07	0.00	0.01	(-0.12	0.14)	0.06	0.07	0.00	0.06	(-0.07	0.20)	0.01	0.07	0.00	0.01	(-0.13	0.15)
<i>How often mother reads to the child</i>																		
=1 if at least several times a week	0.15	0.11	0.00	0.15	(-0.07	0.37)	0.04	0.12	0.00	0.04	(-0.19	0.27)	-0.09	0.12	0.00	-0.10	(-0.33	0.14)
Health and Health Related Behaviour																		
<i>Maternal physical health</i>																		
=1 if longstanding illness	0.01	0.06	0.00	0.01	(-0.10	0.13)	-0.05	0.06	0.00	-0.05	(-0.17	0.07)	-0.01	0.06	0.00	-0.02	(-0.14	0.11)
<i>Maternal mental health</i>																		
=1 if high distress	0.12	0.11	0.00	0.12	(-0.09	0.33)	0.06	0.11	0.00	0.06	(-0.16	0.28)	0.11	0.11	0.00	0.11	(-0.10	0.33)
<i>Does mother currently smoke</i>																		
=1 if currently smokes	-0.05	0.05	0.00	-0.05	(-0.15	0.06)	-0.12	0.05	0.00	-0.12	(-0.22	-0.01)	0.01	0.06	0.00	0.01	(-0.10	0.12)
<i>How often mother drinks alcohol</i>																		
=1 if at least 3 times a week	0.09	0.08	0.00	0.09	(-0.07	0.24)	-0.06	0.08	0.00	-0.07	(-0.22	0.10)	-0.06	0.08	0.00	-0.06	(-0.22	0.10)
Other																		
<i>Housing tenure</i>																		
=1 if council rented	-0.02	0.08	0.00	-0.02	(-0.19	0.15)	-0.29	0.09	0.00	-0.29	(-0.46	-0.12)	-0.06	0.09	0.00	-0.05	(-0.23	0.12)
=1 if rented (housing association or private)/ other	0.08	0.08	0.00	0.08	(-0.07	0.23)	-0.31	0.08	0.00	-0.31	(-0.46	-0.16)	-0.01	0.08	0.00	-0.01	(-0.16	0.15)
<i>Child's fruit consumption</i>																		
=1 if cm has at least one portion of fruit per day	0.09	0.11	0.00	0.09	(-0.13	0.30)	0.11	0.11	0.00	0.11	(-0.11	0.33)	0.22	0.12	0.00	0.22	(-0.00	0.45)
<i>Maternal grandfathers' SES when respondent was aged 14</i>																		
=1 if was not working	-0.21	0.09	0.00	-0.21	(-0.39	-0.03)	-0.07	0.09	0.00	-0.07	(-0.26	0.11)	-0.10	0.10	0.00	-0.10	(-0.29	0.09)
=1 if managerial/ professional occupation	0.05	0.08	0.00	0.04	(-0.12	0.21)	0.06	0.09	0.00	0.06	(-0.11	0.23)	-0.07	0.09	0.00	-0.07	(-0.25	0.10)
=1 if technical, semi-routine or routine occupation	-0.09	0.06	0.00	-0.09	(-0.22	0.03)	-0.04	0.07	0.00	-0.04	(-0.17	0.09)	-0.13	0.07	0.00	-0.13	(-0.27	-0.00)
=1 if can't remember or father died	-0.01	0.09	0.00	-0.01	(-0.19	0.18)	0.07	0.10	0.00	0.07	(-0.12	0.26)	-0.14	0.10	0.00	-0.14	(-0.34	0.05)
constant	-2.74	0.60	0.01	-2.74	(-3.90	-1.56)	-1.88	0.61	0.01	-1.88	(-3.06	-0.68)	-2.40	0.61	0.01	-2.40	(-3.61	-1.19)
σ_ϵ	0.91	0.03	0.00	0.92	(0.83	0.97)	0.95	0.03	0.00	0.95	(0.87	1.00)	0.96	0.04	0.00	0.96	(0.87	1.01)
σ_ζ	0.21	0.11	0.01	0.20	(0.04	0.44)	0.17	0.12	0.01	0.15	(0.02	0.44)	0.23	0.12	0.01	0.22	(0.05	0.49)
$\rho_{\zeta\xi}$	0.34	0.49	0.04	0.47	(-0.76	0.95)	0.32	0.50	0.04	0.44	(-0.85	0.93)	0.37	0.48	0.04	0.47	(-0.73	0.98)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.27: Bayesian Estimates: BAS and # Hospital Admissions (Eq. 1, TP, Age 5)

	BAS NV					BAS PC					BAS PS				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
number of hospital admissions	0.04	0.03	0.00	0.04	(-0.03 0.10)	-0.04	0.03	0.00	-0.04	(-0.11 0.02)	0.03	0.03	0.00	0.03	(-0.04 0.09)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.13	0.03	0.00	0.13	(0.07 0.20)	0.13	0.03	0.00	0.13	(0.07 0.20)	0.13	0.03	0.00	0.13	(0.06 0.20)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.18	0.03	0.00	-0.18	(-0.24 -0.13)	-0.09	0.03	0.00	-0.09	(-0.15 -0.03)	-0.04	0.03	0.00	-0.04	(-0.10 0.02)
=1 if NVQ level 3	-0.14	0.03	0.00	-0.14	(-0.20 -0.07)	-0.09	0.03	0.00	-0.09	(-0.16 -0.03)	-0.08	0.03	0.00	-0.08	(-0.15 -0.01)
=1 if overseas qual. only	-0.30	0.09	0.00	-0.30	(-0.49 -0.12)	-0.02	0.10	0.00	-0.02	(-0.22 0.17)	-0.02	0.10	0.00	-0.02	(-0.22 0.17)
=1 if none of these	-0.38	0.05	0.00	-0.38	(-0.49 -0.28)	-0.11	0.06	0.00	-0.11	(-0.22 -0.00)	-0.07	0.06	0.00	-0.07	(-0.18 0.05)
<i>Mother's age at birth</i>															
=1 if less than 25 years	-0.31	0.04	0.00	-0.31	(-0.39 -0.22)	-0.03	0.05	0.00	-0.03	(-0.12 0.06)	-0.10	0.05	0.00	-0.10	(-0.19 -0.01)
=1 if 25 to 29 years	-0.10	0.03	0.00	-0.10	(-0.16 -0.03)	0.01	0.04	0.00	0.01	(-0.06 0.08)	-0.04	0.04	0.00	-0.04	(-0.11 0.03)
=1 if 30 to 34 years	-0.02	0.03	0.00	-0.02	(-0.08 0.04)	0.02	0.03	0.00	0.02	(-0.05 0.08)	0.01	0.03	0.00	0.01	(-0.06 0.07)
<i>Child demography</i>															
=1 if female	0.06	0.02	0.00	0.06	(0.02 0.10)	0.13	0.02	0.00	0.13	(0.08 0.17)	0.09	0.02	0.00	0.09	(0.05 0.14)
age (years)	0.65	0.04	0.00	0.65	(0.56 0.74)	0.70	0.05	0.00	0.70	(0.61 0.79)	0.51	0.05	0.00	0.51	(0.42 0.60)
=1 if ethnicity is non-white	-0.42	0.05	0.00	-0.42	(-0.52 -0.33)	-0.03	0.05	0.00	-0.03	(-0.13 0.07)	-0.02	0.05	0.00	-0.02	(-0.13 0.08)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.09	0.05	0.00	-0.09	(-0.19 0.01)	-0.26	0.05	0.00	-0.26	(-0.36 -0.16)	-0.16	0.05	0.00	-0.16	(-0.27 -0.06)
<i>Size of household</i>															
log of hh size incl. cm	-0.29	0.07	0.00	-0.29	(-0.42 -0.15)	-0.22	0.07	0.00	-0.22	(-0.37 -0.08)	-0.14	0.07	0.00	-0.14	(-0.28 0.00)
<i>Number of older siblings</i>															
=1 if no older siblings	0.19	0.03	0.00	0.19	(0.14 0.25)	-0.01	0.03	0.00	-0.01	(-0.06 0.04)	0.05	0.03	0.00	0.05	(-0.01 0.10)
=1 if two or more older siblings	-0.16	0.04	0.00	-0.16	(-0.23 -0.09)	-0.03	0.04	0.00	-0.03	(-0.10 0.04)	-0.02	0.04	0.00	-0.02	(-0.10 0.05)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	-0.06	0.10	0.00	-0.06	(-0.25 0.12)	-0.04	0.10	0.00	-0.04	(-0.23 0.16)	-0.12	0.10	0.00	-0.12	(-0.32 0.08)
<i>Country where interview took place</i>															
=1 if wales	0.10	0.11	0.00	0.10	(-0.13 0.32)	0.12	0.12	0.00	0.12	(-0.11 0.35)	0.20	0.12	0.00	0.20	(-0.03 0.44)
=1 if nireland	0.19	0.25	0.00	0.19	(-0.31 0.68)	0.39	0.26	0.00	0.38	(-0.12 0.90)	0.18	0.26	0.00	0.18	(-0.33 0.70)
=1 if scotland	0.08	0.14	0.00	0.07	(-0.20 0.35)	0.10	0.15	0.00	0.10	(-0.19 0.38)	0.24	0.15	0.00	0.24	(-0.05 0.53)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	-0.02	0.02	0.00	-0.02	(-0.06 0.03)	-0.01	0.02	0.00	-0.01	(-0.06 0.04)	-0.00	0.03	0.00	-0.00	(-0.05 0.05)
<i>Childcare</i>															
=1 if formal childcare	-0.08	0.05	0.00	-0.08	(-0.17 0.02)	0.02	0.05	0.00	0.02	(-0.08 0.12)	0.11	0.05	0.00	0.11	(0.01 0.21)
=1 if informal/ other childcare	-0.07	0.04	0.00	-0.06	(-0.15 0.02)	-0.01	0.04	0.00	-0.01	(-0.10 0.07)	0.00	0.04	0.00	0.00	(-0.08 0.09)
=1 if grandparent care	0.01	0.03	0.00	0.01	(-0.04 0.07)	-0.01	0.03	0.00	-0.01	(-0.06 0.05)	0.06	0.03	0.00	0.06	(0.00 0.11)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	0.01	0.02	0.00	0.01	(-0.04 0.05)	-0.05	0.03	0.00	-0.05	(-0.10 0.01)	0.03	0.03	0.00	0.03	(-0.02 0.08)
=1 if working full-time	-0.02	0.05	0.00	-0.02	(-0.13 0.08)	0.02	0.06	0.00	0.02	(-0.09 0.13)	0.06	0.06	0.00	0.06	(-0.05 0.17)
<i>How long mother breastfed child</i>															

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Table A.3.27 – continued from previous page

	BAS NV					BAS PC					BAS PS				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.12	0.03	0.00	0.12	(0.07 0.18)	0.02	0.03	0.00	0.02	(-0.04 0.08)	0.08	0.03	0.00	0.08	(0.02 0.14)
<i>If child is naughty...</i>															
=1 if mother smacks child	0.00	0.09	0.00	0.00	(-0.18 0.18)	0.02	0.10	0.00	0.02	(-0.17 0.21)	-0.07	0.10	0.00	-0.07	(-0.26 0.12)
=1 if mother tells child off	0.01	0.02	0.00	0.01	(-0.03 0.05)	-0.02	0.02	0.00	-0.02	(-0.07 0.02)	-0.02	0.02	0.00	-0.02	(-0.07 0.02)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.15	0.04	0.00	0.15	(0.07 0.23)	0.08	0.04	0.00	0.08	(-0.00 0.16)	0.13	0.04	0.00	0.13	(0.04 0.21)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.02	0.03	0.00	-0.02	(-0.08 0.05)	-0.15	0.03	0.00	-0.15	(-0.21 -0.08)	-0.08	0.03	0.00	-0.08	(-0.15 -0.02)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.15	0.06	0.00	0.15	(0.04 0.25)	0.03	0.06	0.00	0.03	(-0.08 0.15)	0.05	0.06	0.00	0.05	(-0.06 0.16)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.01	0.03	0.00	0.01	(-0.04 0.06)	-0.01	0.03	0.00	-0.01	(-0.06 0.04)	0.01	0.03	0.00	0.01	(-0.04 0.07)
<i>Maternal mental health</i>															
=1 if high distress	-0.09	0.08	0.00	-0.09	(-0.24 0.06)	-0.04	0.08	0.00	-0.04	(-0.20 0.11)	-0.09	0.08	0.00	-0.09	(-0.25 0.06)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.03	0.03	0.00	0.03	(-0.03 0.08)	-0.03	0.03	0.00	-0.03	(-0.09 0.03)	0.00	0.03	0.00	0.00	(-0.06 0.06)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	0.07	0.03	0.00	0.07	(0.01 0.12)	0.03	0.03	0.00	0.03	(-0.03 0.08)	0.08	0.03	0.00	0.08	(0.02 0.14)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.14	0.05	0.00	-0.14	(-0.23 -0.05)	-0.16	0.05	0.00	-0.16	(-0.25 -0.06)	-0.09	0.05	0.00	-0.09	(-0.19 0.00)
=1 if rented (housing association or private)/ other	-0.03	0.04	0.00	-0.03	(-0.10 0.05)	-0.00	0.04	0.00	-0.00	(-0.09 0.08)	-0.02	0.04	0.00	-0.02	(-0.10 0.06)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.15	0.06	0.00	0.15	(0.03 0.26)	0.09	0.06	0.00	0.09	(-0.03 0.21)	0.08	0.06	0.00	0.08	(-0.04 0.20)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.08	0.05	0.00	-0.08	(-0.18 0.01)	-0.16	0.05	0.00	-0.16	(-0.26 -0.06)	-0.07	0.05	0.00	-0.07	(-0.17 0.03)
=1 if managerial/ professional occupation	0.09	0.03	0.00	0.09	(0.03 0.15)	0.02	0.03	0.00	0.02	(-0.05 0.08)	0.07	0.03	0.00	0.07	(0.00 0.13)
=1 if technical, semi-routine or routine occupation	-0.02	0.03	0.00	-0.02	(-0.07 0.04)	-0.03	0.03	0.00	-0.03	(-0.09 0.02)	-0.04	0.03	0.00	-0.04	(-0.09 0.02)
=1 if can't remember or father died	-0.02	0.05	0.00	-0.01	(-0.11 0.08)	-0.09	0.05	0.00	-0.09	(-0.19 0.02)	-0.06	0.05	0.00	-0.06	(-0.16 0.05)
constant	-4.03	0.34	0.00	-4.03	(-4.71 -3.37)	-4.15	0.35	0.00	-4.16	(-4.84 -3.47)	-3.50	0.35	0.00	-3.50	(-4.18 -2.82)
σ_ϵ	0.89	0.02	0.00	0.90	(0.85 0.92)	0.95	0.02	0.00	0.95	(0.88 0.97)	0.96	0.01	0.00	0.96	(0.93 0.98)
σ_ζ	0.17	0.07	0.01	0.15	(0.09 0.34)	0.16	0.09	0.02	0.13	(0.05 0.39)	0.12	0.06	0.01	0.10	(0.06 0.28)
$\rho_{\zeta\xi}$	-0.48	0.39	0.06	-0.51	(-0.98 0.42)	0.10	0.42	0.06	0.11	(-0.71 0.85)	-0.21	0.50	0.09	-0.26	(-0.91 0.82)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.28: Bayesian Estimates: BAS and # Hospital Admissions (Eq. 2, LP, Age 5)

	BAS NV					BAS PC					BAS PS							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Standard Background Controls																		
<i>Income</i>																		
log of permanent family income (weekly, imp.)	0.03	0.18	0.01	0.03	(-0.33	0.39)	0.02	0.18	0.01	0.02	(-0.34	0.39)	0.01	0.18	0.01	0.02	(-0.35	0.34)
<i>Maternal education</i>																		
=1 if NVQ level 1 or 2	-0.32	0.20	0.00	-0.32	(-0.72	0.07)	-0.31	0.20	0.00	-0.31	(-0.70	0.08)	-0.32	0.20	0.00	-0.32	(-0.70	0.07)
=1 if NVQ level 3	-0.22	0.23	0.00	-0.22	(-0.67	0.24)	-0.21	0.24	0.00	-0.21	(-0.66	0.25)	-0.21	0.23	0.00	-0.21	(-0.67	0.24)
=1 if overseas qual. only	-0.53	0.48	0.00	-0.53	(-1.51	0.40)	-0.52	0.47	0.00	-0.52	(-1.47	0.40)	-0.52	0.47	0.00	-0.50	(-1.46	0.38)
=1 if none of these	-0.68	0.28	0.00	-0.68	(-1.22	-0.14)	-0.68	0.28	0.00	-0.68	(-1.22	-0.14)	-0.68	0.27	0.00	-0.68	(-1.21	-0.14)
<i>Mother's age at birth</i>																		
=1 if less than 25 years	0.26	0.27	0.00	0.26	(-0.28	0.80)	0.26	0.28	0.00	0.25	(-0.29	0.82)	0.26	0.28	0.00	0.26	(-0.28	0.79)
=1 if 25 to 29 years	0.24	0.26	0.00	0.24	(-0.26	0.75)	0.24	0.26	0.00	0.24	(-0.26	0.76)	0.25	0.26	0.00	0.25	(-0.26	0.76)
=1 if 30 to 34 years	0.23	0.27	0.00	0.24	(-0.29	0.75)	0.22	0.26	0.00	0.22	(-0.28	0.74)	0.23	0.26	0.00	0.23	(-0.28	0.75)
<i>Child demography</i>																		
=1 if female	-0.41	0.14	0.00	-0.41	(-0.69	-0.13)	-0.40	0.14	0.00	-0.41	(-0.69	-0.12)	-0.41	0.14	0.00	-0.41	(-0.69	-0.13)
age (years)	-0.03	0.27	0.02	-0.03	(-0.58	0.49)	-0.05	0.27	0.02	-0.05	(-0.58	0.52)	-0.03	0.28	0.02	-0.03	(-0.58	0.53)
=1 if ethnicity is non-white	-0.43	0.28	0.00	-0.42	(-0.97	0.11)	-0.41	0.28	0.00	-0.41	(-0.97	0.12)	-0.42	0.28	0.00	-0.42	(-0.96	0.12)
<i>Child's health endowment</i>																		
=1 if birth weight < 2500g	0.41	0.24	0.00	0.41	(-0.07	0.89)	0.43	0.24	0.00	0.43	(-0.05	0.90)	0.42	0.24	0.00	0.42	(-0.06	0.90)
<i>Size of household</i>																		
log of hh size incl. cm	-0.22	0.25	0.01	-0.22	(-0.72	0.28)	-0.21	0.25	0.01	-0.21	(-0.74	0.26)	-0.23	0.25	0.01	-0.23	(-0.72	0.27)
<i>Number of older siblings</i>																		
=1 if no older siblings	-0.21	0.18	0.00	-0.21	(-0.57	0.15)	-0.21	0.18	0.00	-0.21	(-0.58	0.15)	-0.21	0.18	0.00	-0.21	(-0.57	0.14)
=1 if two or more older siblings	-0.12	0.23	0.00	-0.12	(-0.55	0.33)	-0.13	0.22	0.00	-0.13	(-0.56	0.31)	-0.11	0.22	0.00	-0.12	(-0.55	0.32)
<i>Respondent's relationship to child</i>																		
=1 if natural mother of child	-0.01	0.54	0.02	-0.01	(-1.07	1.07)	0.01	0.53	0.02	0.01	(-1.03	1.04)	0.02	0.53	0.02	0.00	(-0.99	1.09)
<i>Country where interview took place</i>																		
=1 if wales	-0.34	0.53	0.01	-0.33	(-1.37	0.71)	-0.35	0.52	0.01	-0.36	(-1.37	0.67)	-0.34	0.53	0.01	-0.34	(-1.39	0.70)
=1 if nireland	-0.16	0.59	0.01	-0.16	(-1.30	0.99)	-0.15	0.59	0.01	-0.15	(-1.31	0.99)	-0.18	0.60	0.01	-0.16	(-1.35	0.99)
=1 if scotland	-0.49	0.56	0.01	-0.49	(-1.60	0.60)	-0.51	0.56	0.01	-0.50	(-1.63	0.59)	-0.49	0.56	0.01	-0.48	(-1.59	0.58)
Time and Care																		
<i>Time mother spends with child</i>																		
=1 if at least just enough	-0.10	0.19	0.00	-0.10	(-0.46	0.26)	-0.10	0.19	0.00	-0.10	(-0.47	0.26)	-0.11	0.19	0.00	-0.11	(-0.47	0.26)
<i>Childcare</i>																		
=1 if formal childcare	0.02	0.20	0.00	0.01	(-0.38	0.41)	0.04	0.20	0.00	0.04	(-0.36	0.43)	0.03	0.20	0.00	0.03	(-0.36	0.42)
=1 if informal/ other childcare	-0.13	0.34	0.00	-0.13	(-0.81	0.52)	-0.12	0.33	0.00	-0.12	(-0.79	0.51)	-0.12	0.34	0.00	-0.12	(-0.79	0.53)
=1 if grandparent care	-0.12	0.19	0.00	-0.12	(-0.50	0.25)	-0.10	0.19	0.00	-0.10	(-0.48	0.28)	-0.11	0.19	0.00	-0.11	(-0.48	0.27)
<i>Maternal employment (t - 1)</i>																		
=1 if working part-time	0.01	0.18	0.00	0.01	(-0.35	0.36)	0.00	0.18	0.00	0.00	(-0.35	0.35)	0.01	0.18	0.00	0.01	(-0.35	0.36)
=1 if working full-time	-0.08	0.38	0.00	-0.07	(-0.83	0.64)	-0.09	0.37	0.00	-0.09	(-0.83	0.64)	-0.09	0.37	0.00	-0.09	(-0.82	0.63)
<i>How long mother breastfed child</i>																		
=1 if at least 6 months	-0.29	0.25	0.00	-0.29	(-0.79	0.21)	-0.29	0.25	0.00	-0.28	(-0.78	0.20)	-0.29	0.25	0.00	-0.28	(-0.78	0.19)
<i>If child is naughty...</i>																		

continued on next page

Table A.3.28 – continued from previous page

	BAS NV					BAS PC					BAS PS				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.01	0.23	0.00	-0.01	(-0.47 0.44)	-0.01	0.23	0.00	-0.01	(-0.47 0.44)	-0.01	0.23	0.00	-0.01	(-0.46 0.44)
=1 if mother tells child off	-0.32	0.19	0.00	-0.32	(-0.68 0.05)	-0.31	0.19	0.00	-0.31	(-0.67 0.06)	-0.31	0.19	0.00	-0.31	(-0.68 0.05)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	-0.43	0.17	0.00	-0.43	(-0.75 -0.09)	-0.42	0.17	0.00	-0.42	(-0.75 -0.10)	-0.43	0.17	0.00	-0.43	(-0.76 -0.09)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.25	0.19	0.00	-0.25	(-0.63 0.11)	-0.26	0.19	0.00	-0.26	(-0.63 0.10)	-0.26	0.19	0.00	-0.26	(-0.63 0.10)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.02	0.26	0.00	-0.03	(-0.53 0.50)	0.01	0.26	0.00	0.01	(-0.48 0.52)	-0.01	0.26	0.00	-0.01	(-0.51 0.51)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.21	0.16	0.00	0.21	(-0.11 0.52)	0.22	0.16	0.00	0.22	(-0.10 0.54)	0.22	0.16	0.00	0.22	(-0.11 0.53)
<i>Maternal mental health</i>															
=1 if high distress	0.14	0.27	0.00	0.15	(-0.40 0.66)	0.13	0.27	0.00	0.13	(-0.40 0.66)	0.14	0.27	0.00	0.14	(-0.39 0.67)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.06	0.15	0.00	0.06	(-0.24 0.36)	0.05	0.15	0.00	0.05	(-0.25 0.35)	0.05	0.15	0.00	0.05	(-0.24 0.35)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.34	0.24	0.00	-0.34	(-0.82 0.12)	-0.34	0.24	0.00	-0.33	(-0.82 0.13)	-0.34	0.24	0.00	-0.33	(-0.81 0.12)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.32	0.21	0.00	0.32	(-0.10 0.74)	0.31	0.21	0.00	0.31	(-0.11 0.74)	0.31	0.22	0.00	0.31	(-0.11 0.73)
=1 if rented (housing association or private)/ other	0.10	0.20	0.00	0.10	(-0.29 0.50)	0.09	0.20	0.00	0.09	(-0.29 0.48)	0.10	0.20	0.00	0.10	(-0.30 0.49)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.24	0.31	0.01	0.23	(-0.37 0.86)	0.25	0.31	0.01	0.25	(-0.35 0.88)	0.25	0.31	0.01	0.25	(-0.36 0.89)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.25	0.25	0.00	0.25	(-0.22 0.74)	0.25	0.25	0.00	0.25	(-0.24 0.74)	0.25	0.25	0.00	0.25	(-0.24 0.75)
=1 if managerial/ professional occupation	0.15	0.23	0.00	0.15	(-0.30 0.60)	0.15	0.23	0.00	0.15	(-0.30 0.61)	0.15	0.23	0.00	0.15	(-0.31 0.61)
=1 if technical, semi-routine or routine occupation	0.18	0.18	0.00	0.18	(-0.16 0.53)	0.18	0.18	0.00	0.18	(-0.18 0.53)	0.18	0.18	0.00	0.18	(-0.18 0.54)
=1 if can't remember or father died	0.38	0.25	0.00	0.38	(-0.10 0.86)	0.39	0.25	0.00	0.39	(-0.09 0.87)	0.39	0.25	0.00	0.40	(-0.10 0.88)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	-0.21	0.24	0.00	-0.20	(-0.69 0.26)	-0.22	0.25	0.00	-0.22	(-0.71 0.26)	-0.22	0.24	0.00	-0.21	(-0.70 0.25)
constant	-0.63	0.87	0.05	-0.63	(-2.40 1.06)	-0.63	0.87	0.05	-0.62	(-2.29 1.03)	-0.59	0.85	0.05	-0.58	(-2.26 1.05)
α	0.94	0.28	0.01	0.88	(0.55 1.65)	0.92	0.27	0.01	0.87	(0.55 1.59)	0.92	0.27	0.01	0.87	(0.55 1.56)
$\ln\alpha$	-0.11	0.27	0.01	-0.13	(-0.59 0.50)	-0.12	0.27	0.01	-0.14	(-0.59 0.46)	-0.12	0.27	0.01	-0.14	(-0.61 0.45)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.29: Bayesian Estimates: BAS and # Hospital Admissions (Eq. 2, TP, Age 5)

	BAS NV					BAS PC					BAS PS							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Standard Background Controls																		
<i>Income</i>																		
log of permanent family income (weekly, imp.)	-0.11	0.09	0.01	-0.11	(-0.29	0.06)	-0.09	0.09	0.01	-0.09	(-0.27	0.09)	-0.09	0.09	0.01	-0.09	(-0.26	0.08)
<i>Maternal education</i>																		
=1 if NVQ level 1 or 2	-0.02	0.08	0.00	-0.02	(-0.19	0.15)	-0.01	0.09	0.00	-0.02	(-0.18	0.15)	-0.01	0.08	0.00	-0.01	(-0.18	0.15)
=1 if NVQ level 3	-0.05	0.10	0.00	-0.05	(-0.24	0.14)	-0.05	0.10	0.00	-0.05	(-0.24	0.14)	-0.05	0.10	0.00	-0.05	(-0.24	0.15)
=1 if overseas qual. only	-0.34	0.29	0.00	-0.34	(-0.92	0.22)	-0.35	0.30	0.00	-0.34	(-0.94	0.21)	-0.34	0.30	0.00	-0.33	(-0.92	0.23)
=1 if none of these	0.03	0.15	0.00	0.03	(-0.28	0.32)	0.02	0.15	0.00	0.02	(-0.29	0.32)	0.03	0.15	0.00	0.03	(-0.27	0.32)
<i>Mother's age at birth</i>																		
=1 if less than 25 years	0.26	0.13	0.00	0.26	(0.01	0.51)	0.26	0.13	0.00	0.26	(0.01	0.51)	0.26	0.13	0.00	0.26	(0.02	0.51)
=1 if 25 to 29 years	0.11	0.11	0.00	0.11	(-0.09	0.32)	0.12	0.10	0.00	0.12	(-0.09	0.32)	0.11	0.10	0.00	0.12	(-0.10	0.32)
=1 if 30 to 34 years	0.04	0.10	0.00	0.04	(-0.16	0.23)	0.04	0.10	0.00	0.04	(-0.15	0.23)	0.04	0.10	0.00	0.04	(-0.16	0.23)
<i>Child demography</i>																		
=1 if female	-0.22	0.06	0.00	-0.22	(-0.35	-0.10)	-0.22	0.07	0.00	-0.22	(-0.35	-0.09)	-0.22	0.06	0.00	-0.22	(-0.35	-0.10)
age (years)	0.29	0.16	0.01	0.29	(-0.05	0.61)	0.29	0.17	0.01	0.29	(-0.04	0.61)	0.28	0.15	0.01	0.28	(-0.02	0.57)
=1 if ethnicity is non-white	0.08	0.16	0.00	0.08	(-0.23	0.39)	0.07	0.15	0.00	0.07	(-0.24	0.36)	0.07	0.15	0.00	0.07	(-0.23	0.37)
<i>Child's health endowment</i>																		
=1 if birth weight < 2500g	0.57	0.13	0.00	0.57	(0.31	0.82)	0.57	0.13	0.00	0.57	(0.31	0.82)	0.57	0.13	0.00	0.57	(0.31	0.82)
<i>Size of household</i>																		
log of hh size incl. cm	-0.55	0.19	0.01	-0.56	(-0.92	-0.17)	-0.56	0.19	0.01	-0.55	(-0.94	-0.18)	-0.56	0.19	0.01	-0.57	(-0.93	-0.18)
<i>Number of older siblings</i>																		
=1 if no older siblings	-0.07	0.08	0.00	-0.07	(-0.23	0.10)	-0.07	0.08	0.00	-0.07	(-0.23	0.10)	-0.07	0.08	0.00	-0.07	(-0.23	0.10)
=1 if two or more older siblings	-0.05	0.11	0.00	-0.05	(-0.26	0.16)	-0.05	0.11	0.00	-0.05	(-0.26	0.16)	-0.05	0.11	0.00	-0.05	(-0.26	0.16)
<i>Respondent's relationship to child</i>																		
=1 if natural mother of child	0.61	0.41	0.02	0.61	(-0.18	1.42)	0.59	0.42	0.02	0.58	(-0.20	1.47)	0.62	0.40	0.02	0.62	(-0.16	1.42)
<i>Country where interview took place</i>																		
=1 if wales	0.63	0.33	0.01	0.63	(0.00	1.29)	0.65	0.33	0.01	0.65	(0.01	1.30)	0.64	0.33	0.01	0.63	(-0.01	1.30)
=1 if nireland	0.07	0.52	0.02	0.07	(-0.97	1.09)	0.05	0.50	0.01	0.05	(-0.93	1.04)	0.03	0.50	0.01	0.02	(-0.96	1.01)
=1 if scotland	0.17	0.41	0.01	0.17	(-0.62	0.97)	0.19	0.41	0.01	0.19	(-0.63	1.02)	0.18	0.42	0.01	0.18	(-0.64	0.99)
Time and Care																		
<i>Time mother spends with child</i>																		
=1 if at least just enough	-0.06	0.08	0.00	-0.06	(-0.22	0.10)	-0.06	0.08	0.00	-0.06	(-0.22	0.10)	-0.06	0.08	0.00	-0.06	(-0.22	0.10)
<i>Childcare</i>																		
=1 if formal childcare	0.10	0.09	0.00	0.10	(-0.07	0.27)	0.10	0.09	0.00	0.10	(-0.08	0.27)	0.10	0.09	0.00	0.10	(-0.07	0.27)
=1 if informal/ other childcare	0.10	0.16	0.00	0.10	(-0.23	0.41)	0.10	0.16	0.00	0.10	(-0.23	0.41)	0.10	0.16	0.00	0.10	(-0.22	0.41)
=1 if grandparent care	-0.03	0.09	0.00	-0.03	(-0.21	0.15)	-0.04	0.09	0.00	-0.04	(-0.22	0.14)	-0.04	0.09	0.00	-0.04	(-0.22	0.14)
<i>Maternal employment (t - 1)</i>																		
=1 if working part-time	-0.07	0.08	0.00	-0.07	(-0.22	0.08)	-0.07	0.08	0.00	-0.07	(-0.22	0.08)	-0.07	0.08	0.00	-0.07	(-0.22	0.08)
=1 if working full-time	-0.02	0.14	0.00	-0.02	(-0.30	0.26)	-0.01	0.15	0.00	-0.01	(-0.29	0.28)	-0.01	0.14	0.00	-0.01	(-0.30	0.27)
<i>How long mother breastfed child</i>																		
=1 if at least 6 months	-0.18	0.09	0.00	-0.18	(-0.36	-0.01)	-0.18	0.09	0.00	-0.18	(-0.36	-0.00)	-0.18	0.09	0.00	-0.18	(-0.36	-0.01)
<i>If child is naughty...</i>																		

continued on next page

Table A.3.29 – continued from previous page

	BAS NV					BAS PC					BAS PS				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.03	0.11	0.00	-0.03	(-0.24 0.19)	-0.02	0.11	0.00	-0.02	(-0.24 0.20)	-0.02	0.11	0.00	-0.02	(-0.24 0.19)
=1 if mother tells child off	0.06	0.09	0.00	0.06	(-0.12 0.24)	0.05	0.09	0.00	0.05	(-0.13 0.23)	0.05	0.09	0.00	0.05	(-0.13 0.23)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.05	0.09	0.00	0.05	(-0.12 0.23)	0.04	0.09	0.00	0.04	(-0.13 0.21)	0.04	0.09	0.00	0.04	(-0.13 0.22)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.11	0.09	0.00	-0.11	(-0.29 0.08)	-0.10	0.09	0.00	-0.10	(-0.29 0.08)	-0.11	0.10	0.00	-0.11	(-0.30 0.08)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.04	0.15	0.00	-0.04	(-0.35 0.26)	-0.05	0.16	0.00	-0.06	(-0.36 0.26)	-0.06	0.15	0.00	-0.06	(-0.35 0.25)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.37	0.07	0.00	0.37	(0.23 0.52)	0.37	0.08	0.00	0.37	(0.22 0.51)	0.37	0.08	0.00	0.37	(0.22 0.52)
<i>Maternal mental health</i>															
=1 if high distress	0.32	0.20	0.00	0.33	(-0.07 0.71)	0.34	0.20	0.00	0.35	(-0.05 0.73)	0.34	0.20	0.00	0.34	(-0.06 0.73)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.13	0.08	0.00	0.13	(-0.03 0.28)	0.13	0.08	0.00	0.13	(-0.03 0.28)	0.13	0.08	0.00	0.13	(-0.03 0.28)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.21	0.09	0.00	-0.21	(-0.40 -0.03)	-0.22	0.09	0.00	-0.22	(-0.40 -0.04)	-0.22	0.09	0.00	-0.22	(-0.40 -0.04)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.08	0.12	0.00	-0.08	(-0.32 0.16)	-0.08	0.13	0.00	-0.08	(-0.32 0.17)	-0.07	0.13	0.00	-0.07	(-0.32 0.17)
=1 if rented (housing association or private)/ other	-0.08	0.11	0.00	-0.08	(-0.30 0.13)	-0.08	0.11	0.00	-0.08	(-0.29 0.14)	-0.08	0.11	0.00	-0.08	(-0.30 0.13)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	-0.04	0.21	0.01	-0.04	(-0.45 0.36)	-0.04	0.21	0.01	-0.04	(-0.44 0.37)	-0.05	0.21	0.01	-0.06	(-0.46 0.36)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.19	0.14	0.00	-0.19	(-0.47 0.08)	-0.19	0.15	0.00	-0.19	(-0.48 0.09)	-0.19	0.14	0.00	-0.19	(-0.47 0.09)
=1 if managerial/ professional occupation	-0.17	0.09	0.00	-0.17	(-0.35 0.02)	-0.17	0.09	0.00	-0.17	(-0.36 0.01)	-0.17	0.09	0.00	-0.17	(-0.35 0.01)
=1 if technical, semi-routine or routine occupation	-0.07	0.08	0.00	-0.07	(-0.22 0.09)	-0.07	0.08	0.00	-0.07	(-0.23 0.08)	-0.07	0.08	0.00	-0.07	(-0.22 0.08)
=1 if can't remember or father died	-0.10	0.15	0.00	-0.09	(-0.38 0.19)	-0.10	0.15	0.00	-0.10	(-0.38 0.19)	-0.10	0.15	0.00	-0.10	(-0.39 0.18)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	0.24	0.14	0.00	0.24	(-0.03 0.51)	0.25	0.14	0.00	0.25	(-0.01 0.52)	0.25	0.14	0.00	0.25	(-0.02 0.51)
constant	-1.99	0.72	0.07	-1.99	(-3.33 -0.65)	-2.02	0.71	0.07	-2.04	(-3.35 -0.58)	-2.02	0.69	0.07	-2.03	(-3.38 -0.68)
α	1.33	0.24	0.01	1.30	(0.95 1.87)	1.33	0.25	0.01	1.30	(0.94 1.89)	1.33	0.24	0.01	1.30	(0.95 1.87)
$\ln\alpha$	0.27	0.17	0.01	0.26	(-0.05 0.63)	0.27	0.18	0.01	0.26	(-0.07 0.64)	0.27	0.17	0.01	0.26	(-0.05 0.63)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.30: Bayesian Estimates: BAS and SDQ HA (Eq. 1, LP, Age 5)

	BAS NV					BAS PC					BAS PS				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
hyperactivity/inattention	-0.05	0.02	0.00	-0.05	(-0.10 -0.01)	-0.07	0.02	0.00	-0.07	(-0.12 -0.03)	-0.06	0.03	0.00	-0.06	(-0.11 -0.01)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.14	0.08	0.00	0.14	(-0.02 0.30)	-0.08	0.08	0.00	-0.08	(-0.24 0.08)	0.01	0.08	0.00	0.01	(-0.15 0.18)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.09	0.08	0.00	-0.09	(-0.25 0.07)	-0.12	0.08	0.00	-0.12	(-0.28 0.04)	-0.14	0.08	0.00	-0.14	(-0.30 0.03)
=1 if NVQ level 3	-0.04	0.09	0.00	-0.04	(-0.23 0.14)	0.05	0.09	0.00	0.04	(-0.14 0.23)	0.05	0.10	0.00	0.05	(-0.14 0.24)
=1 if overseas qual. only	-0.29	0.19	0.00	-0.29	(-0.67 0.09)	-0.10	0.19	0.00	-0.10	(-0.48 0.28)	-0.14	0.20	0.00	-0.14	(-0.53 0.26)
=1 if none of these	-0.10	0.11	0.00	-0.10	(-0.32 0.12)	-0.12	0.12	0.00	-0.12	(-0.35 0.11)	-0.17	0.12	0.00	-0.17	(-0.41 0.06)
<i>Mother's age at birth</i>															
=1 if less than 25 years	-0.22	0.12	0.00	-0.22	(-0.45 0.02)	0.09	0.12	0.00	0.09	(-0.15 0.33)	-0.06	0.13	0.00	-0.06	(-0.30 0.19)
=1 if 25 to 29 years	-0.05	0.11	0.00	-0.05	(-0.26 0.16)	0.07	0.11	0.00	0.07	(-0.14 0.30)	-0.03	0.11	0.00	-0.03	(-0.26 0.19)
=1 if 30 to 34 years	-0.08	0.11	0.00	-0.08	(-0.30 0.14)	0.08	0.11	0.00	0.07	(-0.14 0.30)	0.05	0.12	0.00	0.05	(-0.18 0.27)
<i>Child demography</i>															
=1 if female	-0.04	0.06	0.00	-0.04	(-0.16 0.07)	0.08	0.06	0.00	0.08	(-0.04 0.20)	0.06	0.06	0.00	0.06	(-0.07 0.18)
age (years)	0.46	0.10	0.00	0.46	(0.26 0.66)	0.50	0.11	0.00	0.50	(0.29 0.71)	0.41	0.11	0.00	0.41	(0.19 0.62)
=1 if ethnicity is non-white	-0.26	0.11	0.00	-0.26	(-0.48 -0.04)	-0.03	0.11	0.00	-0.03	(-0.26 0.19)	0.19	0.12	0.00	0.19	(-0.04 0.42)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	0.02	0.11	0.00	0.02	(-0.21 0.25)	0.03	0.12	0.00	0.03	(-0.20 0.25)	0.03	0.12	0.00	0.03	(-0.21 0.27)
<i>Size of household</i>															
log of hh size incl. cm	-0.35	0.11	0.00	-0.35	(-0.57 -0.13)	-0.20	0.11	0.00	-0.20	(-0.42 0.02)	-0.02	0.12	0.00	-0.02	(-0.25 0.21)
<i>Number of older siblings</i>															
=1 if no older siblings	0.16	0.07	0.00	0.16	(0.01 0.31)	-0.05	0.08	0.00	-0.05	(-0.20 0.10)	0.12	0.08	0.00	0.13	(-0.03 0.28)
=1 if two or more older siblings	-0.11	0.10	0.00	-0.11	(-0.30 0.07)	0.01	0.10	0.00	0.01	(-0.18 0.20)	-0.00	0.10	0.00	-0.00	(-0.20 0.20)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	-0.13	0.20	0.00	-0.13	(-0.53 0.26)	0.01	0.20	0.00	0.01	(-0.39 0.40)	-0.03	0.21	0.00	-0.03	(-0.44 0.37)
<i>Country where interview took place</i>															
=1 if wales	-0.28	0.34	0.00	-0.28	(-0.95 0.40)	-0.11	0.36	0.00	-0.11	(-0.82 0.60)	0.08	0.36	0.00	0.08	(-0.62 0.77)
=1 if nireland	1.05	0.44	0.00	1.05	(0.18 1.90)	1.29	0.45	0.00	1.28	(0.42 2.19)	0.86	0.45	0.00	0.87	(-0.05 1.74)
=1 if scotland	-0.50	0.37	0.00	-0.50	(-1.24 0.23)	0.23	0.38	0.00	0.23	(-0.51 0.97)	0.07	0.39	0.00	0.07	(-0.70 0.82)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	0.05	0.06	0.00	0.05	(-0.08 0.18)	0.04	0.07	0.00	0.04	(-0.10 0.17)	0.05	0.07	0.00	0.05	(-0.08 0.19)
<i>Childcare</i>															
=1 if formal childcare	-0.20	0.13	0.00	-0.21	(-0.46 0.05)	-0.02	0.13	0.00	-0.02	(-0.28 0.24)	0.05	0.14	0.00	0.05	(-0.21 0.32)
=1 if informal/ other childcare	-0.19	0.10	0.00	-0.19	(-0.39 0.02)	-0.07	0.10	0.00	-0.07	(-0.27 0.14)	0.09	0.11	0.00	0.09	(-0.12 0.30)
=1 if grandparent care	-0.01	0.07	0.00	-0.01	(-0.15 0.12)	0.01	0.07	0.00	0.01	(-0.13 0.15)	-0.02	0.07	0.00	-0.02	(-0.16 0.13)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	0.14	0.07	0.00	0.14	(-0.00 0.28)	-0.04	0.07	0.00	-0.04	(-0.18 0.10)	0.06	0.07	0.00	0.06	(-0.08 0.21)
=1 if working full-time	0.05	0.15	0.00	0.05	(-0.24 0.34)	0.05	0.15	0.00	0.05	(-0.25 0.35)	0.18	0.16	0.00	0.18	(-0.13 0.48)
<i>How long mother breastfed child</i>															

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Table A.3.30 – continued from previous page

	BAS NV					BAS PC					BAS PS							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
=1 if at least 6 months	0.07	0.10	0.00	0.07	(-0.13	0.26)	0.01	0.10	0.00	0.01	(-0.19	0.21)	-0.05	0.10	0.00	-0.05	(-0.25	0.15)
<i>If child is naughty...</i>																		
=1 if mother smacks child	-0.10	0.21	0.00	-0.10	(-0.51	0.32)	-0.24	0.22	0.00	-0.24	(-0.66	0.19)	-0.20	0.22	0.00	-0.20	(-0.63	0.23)
=1 if mother tells child off	0.10	0.06	0.00	0.10	(-0.02	0.22)	-0.01	0.06	0.00	-0.01	(-0.13	0.11)	0.13	0.06	0.00	0.13	(0.00	0.25)
<i>Bedtime on term-time weekdays</i>																		
=1 if regular bedtime	0.03	0.09	0.00	0.03	(-0.14	0.21)	0.08	0.09	0.00	0.08	(-0.10	0.26)	0.12	0.09	0.00	0.12	(-0.07	0.30)
<i>Daily TV/ video consumption</i>																		
=1 if more than 3 hours tv/ videos	0.02	0.07	0.00	0.02	(-0.12	0.17)	0.07	0.08	0.00	0.07	(-0.08	0.21)	0.02	0.08	0.00	0.02	(-0.13	0.17)
<i>How often mother reads to the child</i>																		
=1 if at least several times a week	0.12	0.13	0.00	0.12	(-0.13	0.36)	-0.02	0.13	0.00	-0.02	(-0.27	0.23)	-0.08	0.13	0.00	-0.08	(-0.34	0.18)
Health and Health Related Behaviour																		
<i>Maternal physical health</i>																		
=1 if longstanding illness	0.00	0.07	0.00	0.00	(-0.13	0.14)	-0.08	0.07	0.00	-0.09	(-0.22	0.06)	0.01	0.07	0.00	0.01	(-0.12	0.16)
<i>Maternal mental health</i>																		
=1 if high distress	0.22	0.13	0.00	0.22	(-0.03	0.47)	0.12	0.13	0.00	0.12	(-0.13	0.38)	0.12	0.13	0.00	0.12	(-0.13	0.38)
<i>Does mother currently smoke</i>																		
=1 if currently smokes	-0.04	0.06	0.00	-0.04	(-0.16	0.07)	-0.12	0.06	0.00	-0.12	(-0.24	-0.00)	0.01	0.06	0.00	0.02	(-0.11	0.14)
<i>How often mother drinks alcohol</i>																		
=1 if at least 3 times a week	0.09	0.09	0.00	0.09	(-0.09	0.26)	-0.10	0.09	0.00	-0.10	(-0.28	0.07)	-0.07	0.09	0.00	-0.07	(-0.25	0.11)
Other																		
<i>Housing tenure</i>																		
=1 if council rented	-0.00	0.10	0.00	-0.00	(-0.19	0.18)	-0.32	0.10	0.00	-0.32	(-0.51	-0.13)	-0.06	0.10	0.00	-0.07	(-0.26	0.13)
=1 if rented (housing association or private)/ other	0.09	0.08	0.00	0.09	(-0.08	0.26)	-0.30	0.09	0.00	-0.30	(-0.47	-0.13)	-0.02	0.09	0.00	-0.02	(-0.19	0.16)
<i>Child's fruit consumption</i>																		
=1 if cm has at least one portion of fruit per day	0.10	0.12	0.00	0.11	(-0.13	0.34)	0.08	0.12	0.00	0.08	(-0.17	0.32)	0.31	0.13	0.00	0.31	(0.07	0.56)
<i>Maternal grandfathers' SES when respondent was aged 14</i>																		
=1 if was not working	-0.21	0.10	0.00	-0.21	(-0.41	-0.01)	-0.03	0.11	0.00	-0.04	(-0.24	0.17)	-0.07	0.11	0.00	-0.07	(-0.29	0.14)
=1 if managerial/ professional occupation	0.05	0.09	0.00	0.05	(-0.13	0.23)	0.04	0.10	0.00	0.04	(-0.14	0.23)	-0.08	0.10	0.00	-0.08	(-0.27	0.11)
=1 if technical, semi-routine or routine occupation	-0.05	0.07	0.00	-0.05	(-0.20	0.09)	-0.05	0.07	0.00	-0.05	(-0.19	0.10)	-0.14	0.08	0.00	-0.14	(-0.28	0.01)
=1 if can't remember or father died	-0.05	0.11	0.00	-0.05	(-0.26	0.16)	0.09	0.11	0.00	0.09	(-0.13	0.30)	-0.10	0.11	0.00	-0.10	(-0.33	0.12)
constant	-2.59	0.64	0.01	-2.58	(-3.85	-1.34)	-1.43	0.65	0.01	-1.44	(-2.68	-0.13)	-2.29	0.65	0.01	-2.28	(-3.59	-1.02)
σ_ϵ	0.92	0.03	0.00	0.92	(0.84	0.97)	0.95	0.03	0.00	0.95	(0.87	1.00)	0.95	0.04	0.00	0.96	(0.86	1.02)
σ_ζ	0.19	0.12	0.01	0.18	(0.01	0.43)	0.18	0.12	0.01	0.16	(0.00	0.44)	0.24	0.13	0.01	0.24	(0.01	0.50)
$\rho_{\zeta\xi}$	0.49	0.44	0.02	0.62	(-0.67	0.99)	0.43	0.45	0.02	0.51	(-0.63	0.99)	0.59	0.35	0.01	0.68	(-0.38	0.98)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.31: Bayesian Estimates: BAS and SDQ HA (Eq. 1, TP, Age 5)

	BAS NV					BAS PC					BAS PS				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
hyperactivity/inattention	-0.04	0.01	0.00	-0.04	(-0.07 -0.02)	-0.04	0.01	0.00	-0.04	(-0.06 -0.02)	-0.05	0.01	0.00	-0.05	(-0.07 -0.02)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.09	0.04	0.00	0.09	(0.01 0.15)	0.12	0.04	0.00	0.12	(0.05 0.19)	0.12	0.04	0.00	0.12	(0.05 0.19)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.18	0.03	0.00	-0.18	(-0.24 -0.12)	-0.10	0.03	0.00	-0.10	(-0.16 -0.03)	-0.02	0.03	0.00	-0.02	(-0.09 0.04)
=1 if NVQ level 3	-0.13	0.04	0.00	-0.13	(-0.20 -0.06)	-0.08	0.04	0.00	-0.08	(-0.15 -0.00)	-0.05	0.04	0.00	-0.05	(-0.13 0.02)
=1 if overseas qual. only	-0.38	0.11	0.00	-0.38	(-0.59 -0.16)	-0.10	0.12	0.00	-0.10	(-0.33 0.12)	-0.11	0.12	0.00	-0.11	(-0.33 0.12)
=1 if none of these	-0.37	0.06	0.00	-0.37	(-0.49 -0.24)	-0.06	0.07	0.00	-0.06	(-0.19 0.07)	-0.09	0.07	0.00	-0.09	(-0.23 0.04)
<i>Mother's age at birth</i>															
=1 if less than 25 years	-0.27	0.05	0.00	-0.27	(-0.37 -0.18)	-0.02	0.05	0.00	-0.02	(-0.12 0.07)	-0.06	0.05	0.00	-0.06	(-0.16 0.04)
=1 if 25 to 29 years	-0.06	0.04	0.00	-0.06	(-0.13 0.01)	0.01	0.04	0.00	0.01	(-0.07 0.08)	-0.00	0.04	0.00	-0.00	(-0.08 0.07)
=1 if 30 to 34 years	0.00	0.03	0.00	0.00	(-0.07 0.07)	-0.00	0.04	0.00	-0.00	(-0.07 0.07)	0.02	0.04	0.00	0.02	(-0.05 0.09)
<i>Child demography</i>															
=1 if female	0.04	0.02	0.00	0.04	(-0.01 0.09)	0.09	0.03	0.00	0.09	(0.03 0.14)	0.07	0.03	0.00	0.07	(0.01 0.12)
age (years)	0.63	0.05	0.00	0.63	(0.54 0.73)	0.74	0.05	0.00	0.74	(0.64 0.84)	0.53	0.05	0.00	0.53	(0.43 0.63)
=1 if ethnicity is non-white	-0.38	0.06	0.00	-0.38	(-0.49 -0.27)	-0.01	0.06	0.00	-0.01	(-0.13 0.10)	-0.02	0.06	0.00	-0.01	(-0.13 0.10)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.08	0.06	0.00	-0.08	(-0.19 0.04)	-0.25	0.06	0.00	-0.25	(-0.37 -0.13)	-0.08	0.06	0.00	-0.08	(-0.20 0.04)
<i>Size of household</i>															
log of hh size incl. cm	-0.35	0.08	0.00	-0.35	(-0.50 -0.19)	-0.25	0.08	0.00	-0.26	(-0.42 -0.09)	-0.19	0.08	0.00	-0.19	(-0.36 -0.03)
<i>Number of older siblings</i>															
=1 if no older siblings	0.19	0.03	0.00	0.19	(0.13 0.25)	-0.02	0.03	0.00	-0.02	(-0.08 0.04)	0.02	0.03	0.00	0.02	(-0.04 0.08)
=1 if two or more older siblings	-0.15	0.04	0.00	-0.15	(-0.23 -0.08)	-0.03	0.04	0.00	-0.03	(-0.11 0.05)	-0.04	0.04	0.00	-0.04	(-0.13 0.04)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	-0.09	0.10	0.00	-0.09	(-0.29 0.11)	-0.04	0.11	0.00	-0.04	(-0.26 0.18)	-0.21	0.11	0.00	-0.22	(-0.44 0.01)
<i>Country where interview took place</i>															
=1 if wales	0.08	0.12	0.00	0.08	(-0.16 0.32)	0.06	0.13	0.00	0.05	(-0.20 0.31)	0.23	0.13	0.00	0.23	(-0.03 0.49)
=1 if nireland	0.11	0.29	0.00	0.12	(-0.45 0.68)	0.49	0.29	0.00	0.49	(-0.08 1.06)	0.22	0.30	0.00	0.21	(-0.37 0.79)
=1 if scotland	0.11	0.15	0.00	0.11	(-0.18 0.41)	0.03	0.16	0.00	0.03	(-0.28 0.34)	0.28	0.16	0.00	0.29	(-0.03 0.60)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	-0.02	0.03	0.00	-0.02	(-0.07 0.03)	-0.01	0.03	0.00	-0.01	(-0.06 0.05)	-0.00	0.03	0.00	-0.00	(-0.06 0.05)
<i>Childcare</i>															
=1 if formal childcare	-0.04	0.05	0.00	-0.04	(-0.14 0.06)	0.01	0.06	0.00	0.02	(-0.10 0.12)	0.13	0.06	0.00	0.13	(0.02 0.24)
=1 if informal/ other childcare	-0.06	0.05	0.00	-0.06	(-0.15 0.04)	0.00	0.05	0.00	0.00	(-0.09 0.11)	0.01	0.05	0.00	0.01	(-0.09 0.11)
=1 if grandparent care	-0.01	0.03	0.00	-0.01	(-0.06 0.05)	-0.01	0.03	0.00	-0.01	(-0.07 0.05)	0.04	0.03	0.00	0.04	(-0.02 0.10)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	0.01	0.03	0.00	0.01	(-0.05 0.06)	-0.03	0.03	0.00	-0.03	(-0.09 0.02)	0.04	0.03	0.00	0.04	(-0.02 0.09)
=1 if working full-time	0.00	0.06	0.00	0.00	(-0.11 0.11)	0.01	0.06	0.00	0.01	(-0.11 0.13)	0.06	0.06	0.00	0.06	(-0.06 0.18)
<i>How long mother breastfed child</i>															

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Table A.3.31 – continued from previous page

	BAS NV					BAS PC					BAS PS				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.11	0.03	0.00	0.11	(0.05 0.17)	0.01	0.03	0.00	0.01	(-0.05 0.08)	0.06	0.03	0.00	0.06	(-0.00 0.12)
<i>If child is naughty...</i>															
=1 if mother smacks child	0.08	0.11	0.00	0.08	(-0.13 0.29)	0.09	0.11	0.00	0.09	(-0.13 0.30)	-0.07	0.11	0.00	-0.07	(-0.29 0.15)
=1 if mother tells child off	0.05	0.03	0.00	0.05	(-0.00 0.10)	-0.01	0.03	0.00	-0.01	(-0.06 0.05)	0.01	0.03	0.00	0.01	(-0.04 0.06)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.16	0.05	0.00	0.16	(0.07 0.25)	0.07	0.05	0.00	0.08	(-0.02 0.17)	0.08	0.05	0.00	0.08	(-0.01 0.18)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.02	0.04	0.00	-0.02	(-0.09 0.05)	-0.16	0.04	0.00	-0.16	(-0.24 -0.09)	-0.08	0.04	0.00	-0.08	(-0.16 -0.01)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.15	0.06	0.00	0.15	(0.02 0.27)	-0.03	0.07	0.00	-0.03	(-0.16 0.10)	0.01	0.07	0.00	0.01	(-0.13 0.14)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.02	0.03	0.00	0.02	(-0.03 0.08)	-0.00	0.03	0.00	-0.00	(-0.06 0.06)	0.02	0.03	0.00	0.02	(-0.04 0.08)
<i>Maternal mental health</i>															
=1 if high distress	-0.06	0.09	0.00	-0.06	(-0.23 0.10)	0.01	0.09	0.00	0.01	(-0.17 0.18)	0.00	0.09	0.00	0.01	(-0.17 0.18)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.02	0.03	0.00	0.02	(-0.04 0.08)	-0.04	0.03	0.00	-0.04	(-0.10 0.03)	0.02	0.03	0.00	0.02	(-0.05 0.09)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	0.08	0.03	0.00	0.07	(0.01 0.14)	0.03	0.03	0.00	0.03	(-0.04 0.09)	0.09	0.03	0.00	0.09	(0.03 0.16)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.16	0.05	0.00	-0.16	(-0.26 -0.05)	-0.13	0.06	0.00	-0.13	(-0.24 -0.02)	-0.04	0.06	0.00	-0.04	(-0.15 0.07)
=1 if rented (housing association or private)/ other	-0.01	0.04	0.00	-0.01	(-0.10 0.07)	0.02	0.05	0.00	0.02	(-0.07 0.11)	-0.01	0.05	0.00	-0.01	(-0.11 0.08)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.14	0.07	0.00	0.14	(0.00 0.27)	0.13	0.07	0.00	0.13	(-0.01 0.27)	0.11	0.07	0.00	0.11	(-0.03 0.25)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.07	0.06	0.00	-0.07	(-0.18 0.04)	-0.10	0.06	0.00	-0.10	(-0.21 0.01)	-0.07	0.06	0.00	-0.07	(-0.18 0.05)
=1 if managerial/ professional occupation	0.09	0.03	0.00	0.09	(0.03 0.16)	0.01	0.04	0.00	0.01	(-0.06 0.08)	0.06	0.04	0.00	0.06	(-0.01 0.13)
=1 if technical, semi-routine or routine occupation	0.01	0.03	0.00	0.01	(-0.04 0.07)	-0.00	0.03	0.00	-0.00	(-0.07 0.06)	-0.02	0.03	0.00	-0.02	(-0.08 0.04)
=1 if can't remember or father died	-0.00	0.06	0.00	-0.00	(-0.11 0.11)	-0.07	0.06	0.00	-0.07	(-0.18 0.05)	-0.01	0.06	0.00	-0.01	(-0.12 0.11)
constant	-3.43	0.37	0.00	-3.43	(-4.17 -2.71)	-4.08	0.39	0.00	-4.09	(-4.84 -3.34)	-3.16	0.40	0.00	-3.16	(-3.95 -2.37)
σ_ϵ	0.91	0.02	0.00	0.91	(0.87 0.93)	0.95	0.02	0.00	0.95	(0.91 0.98)	0.95	0.02	0.00	0.96	(0.90 0.98)
σ_ζ	0.10	0.07	0.01	0.08	(0.01 0.28)	0.11	0.08	0.01	0.08	(0.01 0.31)	0.16	0.08	0.01	0.15	(0.04 0.36)
$\rho_{\zeta\xi}$	0.21	0.48	0.04	0.28	(-0.86 0.94)	0.00	0.46	0.04	-0.00	(-0.85 0.89)	0.51	0.33	0.02	0.55	(-0.23 0.99)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.32: Bayesian Estimates: BAS and SDQ HA (Eq. 2, LP, Age 5)

	BAS NV					BAS PC					BAS PS							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Standard Background Controls																		
<i>Income</i>																		
log of permanent family income (weekly, imp.)	0.27	0.16	0.00	0.27	(-0.04	0.58)	0.27	0.16	0.00	0.27	(-0.05	0.58)	0.28	0.16	0.00	0.28	(-0.03	0.59)
<i>Maternal education</i>																		
=1 if NVQ level 1 or 2	0.32	0.18	0.00	0.31	(-0.03	0.66)	0.32	0.18	0.00	0.32	(-0.02	0.67)	0.33	0.18	0.00	0.33	(-0.02	0.68)
=1 if NVQ level 3	0.40	0.21	0.00	0.40	(-0.00	0.80)	0.40	0.20	0.00	0.40	(0.00	0.81)	0.40	0.20	0.00	0.40	(0.00	0.80)
=1 if overseas qual. only	0.69	0.41	0.00	0.69	(-0.10	1.50)	0.70	0.41	0.00	0.70	(-0.09	1.51)	0.69	0.41	0.00	0.68	(-0.12	1.49)
=1 if none of these	0.20	0.24	0.00	0.20	(-0.27	0.68)	0.20	0.25	0.00	0.20	(-0.30	0.68)	0.20	0.24	0.00	0.20	(-0.28	0.69)
<i>Mother's age at birth</i>																		
=1 if less than 25 years	0.67	0.25	0.00	0.67	(0.17	1.17)	0.67	0.25	0.00	0.67	(0.19	1.15)	0.67	0.25	0.00	0.68	(0.18	1.16)
=1 if 25 to 29 years	0.43	0.23	0.00	0.42	(-0.02	0.88)	0.42	0.23	0.00	0.43	(-0.03	0.87)	0.43	0.22	0.00	0.42	(-0.01	0.86)
=1 if 30 to 34 years	0.35	0.24	0.00	0.35	(-0.12	0.81)	0.35	0.24	0.00	0.35	(-0.12	0.80)	0.35	0.23	0.00	0.35	(-0.11	0.81)
<i>Child demography</i>																		
=1 if female	-0.59	0.13	0.00	-0.59	(-0.84	-0.34)	-0.59	0.13	0.00	-0.59	(-0.84	-0.35)	-0.59	0.13	0.00	-0.59	(-0.83	-0.34)
age (years)	0.06	0.25	0.00	0.06	(-0.42	0.55)	0.06	0.25	0.00	0.06	(-0.42	0.54)	0.05	0.25	0.00	0.05	(-0.43	0.53)
=1 if ethnicity is non-white	0.28	0.24	0.00	0.28	(-0.18	0.74)	0.28	0.24	0.00	0.28	(-0.18	0.74)	0.28	0.24	0.00	0.28	(-0.19	0.75)
<i>Child's health endowment</i>																		
=1 if birth weight < 2500g	0.56	0.28	0.00	0.56	(0.01	1.10)	0.55	0.28	0.00	0.54	(-0.01	1.11)	0.55	0.29	0.00	0.55	(-0.01	1.10)
<i>Size of household</i>																		
log of hh size incl. cm	-0.12	0.22	0.00	-0.13	(-0.56	0.31)	-0.12	0.23	0.00	-0.12	(-0.56	0.32)	-0.16	0.23	0.00	-0.16	(-0.61	0.29)
<i>Number of older siblings</i>																		
=1 if no older siblings	-0.05	0.16	0.00	-0.05	(-0.36	0.26)	-0.05	0.16	0.00	-0.05	(-0.36	0.26)	-0.06	0.16	0.00	-0.06	(-0.39	0.26)
=1 if two or more older siblings	0.28	0.20	0.00	0.28	(-0.12	0.68)	0.28	0.21	0.00	0.28	(-0.12	0.68)	0.29	0.20	0.00	0.29	(-0.12	0.69)
<i>Respondent's relationship to child</i>																		
=1 if natural mother of child	0.41	0.47	0.00	0.41	(-0.50	1.34)	0.42	0.48	0.00	0.42	(-0.52	1.35)	0.45	0.48	0.00	0.44	(-0.48	1.38)
<i>Country where interview took place</i>																		
=1 if wales	-0.53	0.51	0.01	-0.53	(-1.53	0.49)	-0.53	0.52	0.01	-0.53	(-1.55	0.49)	-0.52	0.52	0.01	-0.52	(-1.54	0.48)
=1 if nireland	0.11	0.57	0.01	0.12	(-0.99	1.22)	0.11	0.57	0.01	0.11	(-1.00	1.22)	0.09	0.58	0.01	0.09	(-1.04	1.23)
=1 if scotland	-0.24	0.52	0.01	-0.24	(-1.27	0.76)	-0.23	0.51	0.01	-0.23	(-1.25	0.76)	-0.22	0.52	0.01	-0.22	(-1.26	0.79)
Time and Care																		
<i>Time mother spends with child</i>																		
=1 if at least just enough	-0.05	0.17	0.00	-0.05	(-0.38	0.28)	-0.05	0.17	0.00	-0.05	(-0.37	0.28)	-0.03	0.17	0.00	-0.03	(-0.36	0.29)
<i>Childcare</i>																		
=1 if formal childcare	0.22	0.18	0.00	0.22	(-0.13	0.57)	0.24	0.18	0.00	0.23	(-0.11	0.59)	0.24	0.18	0.00	0.24	(-0.11	0.59)
=1 if informal/ other childcare	-0.01	0.28	0.00	-0.01	(-0.56	0.55)	-0.01	0.29	0.00	-0.01	(-0.58	0.55)	-0.00	0.29	0.00	-0.00	(-0.56	0.56)
=1 if grandparent care	0.03	0.17	0.00	0.04	(-0.29	0.35)	0.04	0.17	0.00	0.04	(-0.28	0.37)	0.04	0.16	0.00	0.04	(-0.28	0.36)
<i>Maternal employment (t - 1)</i>																		
=1 if working part-time	-0.11	0.16	0.00	-0.11	(-0.41	0.20)	-0.11	0.16	0.00	-0.11	(-0.42	0.20)	-0.11	0.15	0.00	-0.11	(-0.41	0.19)
=1 if working full-time	0.08	0.31	0.00	0.08	(-0.54	0.70)	0.07	0.32	0.00	0.08	(-0.55	0.70)	0.08	0.32	0.00	0.08	(-0.54	0.69)
<i>How long mother breastfed child</i>																		
=1 if at least 6 months	-0.27	0.21	0.00	-0.27	(-0.68	0.15)	-0.27	0.21	0.00	-0.26	(-0.69	0.15)	-0.26	0.21	0.00	-0.26	(-0.68	0.16)
<i>If child is naughty...</i>																		

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Table A.3.32 – continued from previous page

	BAS NV					BAS PC					BAS PS				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.51	0.22	0.00	0.51	(0.07 0.93)	0.50	0.22	0.00	0.50	(0.08 0.93)	0.51	0.22	0.00	0.51	(0.09 0.94)
=1 if mother tells child off	0.29	0.21	0.00	0.29	(-0.12 0.70)	0.29	0.21	0.00	0.29	(-0.13 0.70)	0.29	0.21	0.00	0.29	(-0.11 0.70)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	-0.10	0.15	0.00	-0.11	(-0.40 0.20)	-0.11	0.15	0.00	-0.11	(-0.41 0.19)	-0.11	0.15	0.00	-0.11	(-0.41 0.20)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	0.17	0.16	0.00	0.17	(-0.15 0.49)	0.16	0.16	0.00	0.16	(-0.15 0.48)	0.16	0.17	0.00	0.16	(-0.17 0.49)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.24	0.24	0.00	-0.24	(-0.73 0.23)	-0.22	0.24	0.00	-0.22	(-0.68 0.23)	-0.24	0.24	0.00	-0.24	(-0.70 0.23)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	-0.12	0.15	0.00	-0.12	(-0.41 0.16)	-0.12	0.15	0.00	-0.11	(-0.40 0.17)	-0.12	0.15	0.00	-0.11	(-0.41 0.17)
<i>Maternal mental health</i>															
=1 if high distress	0.47	0.26	0.00	0.47	(-0.03 0.97)	0.47	0.26	0.00	0.47	(-0.04 0.98)	0.46	0.26	0.00	0.46	(-0.05 0.95)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.40	0.16	0.00	0.40	(0.10 0.71)	0.40	0.16	0.00	0.40	(0.09 0.70)	0.39	0.15	0.00	0.39	(0.09 0.70)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.32	0.20	0.00	-0.32	(-0.72 0.07)	-0.31	0.20	0.00	-0.31	(-0.71 0.08)	-0.34	0.20	0.00	-0.33	(-0.73 0.07)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.08	0.19	0.00	0.08	(-0.31 0.46)	0.08	0.19	0.00	0.07	(-0.30 0.45)	0.08	0.19	0.00	0.08	(-0.30 0.45)
=1 if rented (housing association or private)/ other	0.29	0.18	0.00	0.29	(-0.05 0.63)	0.28	0.17	0.00	0.28	(-0.06 0.62)	0.29	0.17	0.00	0.29	(-0.05 0.63)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	-0.35	0.25	0.00	-0.35	(-0.83 0.15)	-0.33	0.25	0.00	-0.33	(-0.83 0.16)	-0.35	0.25	0.00	-0.35	(-0.83 0.14)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.34	0.22	0.00	0.34	(-0.10 0.77)	0.34	0.22	0.00	0.34	(-0.09 0.76)	0.34	0.22	0.00	0.34	(-0.09 0.77)
=1 if managerial/ professional occupation	-0.01	0.20	0.00	-0.01	(-0.41 0.39)	-0.01	0.20	0.00	-0.02	(-0.40 0.38)	-0.02	0.20	0.00	-0.02	(-0.41 0.37)
=1 if technical, semi-routine or routine occupation	0.23	0.16	0.00	0.23	(-0.07 0.54)	0.23	0.15	0.00	0.23	(-0.07 0.52)	0.23	0.15	0.00	0.23	(-0.08 0.53)
=1 if can't remember or father died	0.38	0.23	0.00	0.38	(-0.06 0.82)	0.38	0.23	0.00	0.39	(-0.07 0.83)	0.37	0.23	0.00	0.37	(-0.08 0.81)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	-0.18	0.22	0.00	-0.18	(-0.60 0.24)	-0.19	0.22	0.00	-0.19	(-0.61 0.24)	-0.19	0.22	0.00	-0.18	(-0.62 0.23)
Hyperactivity Risk Factors															
<i>Gestational age</i>															
=1 if gestational age < 37 weeks	-0.11	0.26	0.00	-0.11	(-0.64 0.40)	-0.11	0.27	0.00	-0.11	(-0.64 0.42)	-0.11	0.26	0.00	-0.11	(-0.64 0.41)
<i>Maternal mental health (age 1)</i>															
=1 if increased risk of depression/ anxiety	0.11	0.17	0.00	0.11	(-0.23 0.45)	0.09	0.17	0.00	0.09	(-0.26 0.43)	0.12	0.17	0.00	0.12	(-0.22 0.46)
<i>Alcohol consumption during pregnancy</i>															
=1 if 1-2 times per month	0.20	0.24	0.00	0.19	(-0.28 0.68)	0.17	0.24	0.00	0.17	(-0.31 0.65)	0.17	0.24	0.00	0.17	(-0.30 0.64)
=1 if at least once a week	0.30	0.22	0.00	0.30	(-0.12 0.73)	0.29	0.22	0.00	0.29	(-0.14 0.71)	0.30	0.22	0.00	0.30	(-0.12 0.73)
<i>Smoking during pregnancy</i>															
=1 if mother smoked during pregnancy	-0.37	0.16	0.00	-0.37	(-0.68 -0.06)	-0.36	0.16	0.00	-0.36	(-0.68 -0.05)	-0.34	0.16	0.00	-0.34	(-0.66 -0.03)
<i>Smoking in the same room as child</i>															
=1 if anyone smokes in same room as child (age 1)	0.24	0.17	0.00	0.25	(-0.10 0.58)	0.25	0.17	0.00	0.24	(-0.09 0.59)	0.23	0.17	0.00	0.23	(-0.11 0.56)
=1 if anyone smokes in same room as child (age 3)	0.03	0.16	0.00	0.02	(-0.28 0.33)	0.02	0.16	0.00	0.02	(-0.29 0.33)	0.01	0.16	0.00	0.01	(-0.31 0.32)

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Table A.3.32 – continued from previous page

	BAS NV					BAS PC					BAS PS				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
<i>Maternal attachment</i>															
Condon scale score (age 1)	0.05	0.07	0.00	0.05	(-0.08 0.18)	0.05	0.07	0.00	0.05	(-0.08 0.18)	0.04	0.07	0.00	0.04	(-0.09 0.17)
<i>Child-parent relationship</i>															
Condon scale score (age 3)	-0.81	0.07	0.00	-0.81	(-0.95 -0.68)	-0.82	0.07	0.00	-0.82	(-0.96 -0.68)	-0.81	0.07	0.00	-0.81	(-0.95 -0.68)
<i>Maltreatment of children</i>															
Straus's conflict tactics scale (age 3)	0.15	0.09	0.00	0.15	(-0.02 0.32)	0.15	0.09	0.00	0.15	(-0.02 0.33)	0.15	0.09	0.00	0.15	(-0.02 0.32)
constant	1.55	0.85	0.01	1.55	(-0.11 3.20)	1.53	0.85	0.01	1.54	(-0.11 3.18)	1.56	0.85	0.01	1.56	(-0.09 3.20)
σ_{τ}	1.81	0.05	0.00	1.81	(1.71 1.91)	1.81	0.05	0.00	1.81	(1.71 1.91)	1.81	0.05	0.00	1.81	(1.71 1.91)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.33: Bayesian Estimates: BAS and SDQ HA (Eq. 2, TP, Age 5)

	BAS NV					BAS PC					BAS PS					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls																
<i>Income</i>																
log of permanent family income (weekly, imp.)	-0.24	0.07	0.00	-0.24	(-0.39 -0.10)	-0.24	0.07	0.00	-0.24	(-0.39 -0.11)	-0.24	0.07	0.00	-0.24	(-0.38 -0.10)	
<i>Maternal education</i>																
=1 if NVQ level 1 or 2	0.28	0.07	0.00	0.28	(0.15 0.42)	0.28	0.07	0.00	0.28	(0.15 0.42)	0.29	0.07	0.00	0.28	(0.15 0.42)	
=1 if NVQ level 3	0.26	0.08	0.00	0.26	(0.11 0.41)	0.26	0.08	0.00	0.26	(0.11 0.41)	0.26	0.08	0.00	0.26	(0.11 0.41)	
=1 if overseas qual. only	0.13	0.23	0.00	0.12	(-0.31 0.57)	0.13	0.23	0.00	0.13	(-0.31 0.57)	0.13	0.23	0.00	0.13	(-0.31 0.57)	
=1 if none of these	0.31	0.13	0.00	0.31	(0.05 0.57)	0.31	0.13	0.00	0.31	(0.05 0.57)	0.31	0.13	0.00	0.31	(0.04 0.57)	
<i>Mother's age at birth</i>																
=1 if less than 25 years	0.09	0.10	0.00	0.09	(-0.11 0.29)	0.09	0.10	0.00	0.09	(-0.11 0.28)	0.08	0.10	0.00	0.08	(-0.11 0.28)	
=1 if 25 to 29 years	0.03	0.08	0.00	0.03	(-0.12 0.19)	0.03	0.08	0.00	0.03	(-0.13 0.19)	0.03	0.08	0.00	0.03	(-0.13 0.19)	
=1 if 30 to 34 years	0.01	0.07	0.00	0.01	(-0.13 0.16)	0.01	0.07	0.00	0.01	(-0.14 0.15)	0.01	0.08	0.00	0.01	(-0.14 0.16)	
<i>Child demography</i>																
=1 if female	-0.44	0.05	0.00	-0.44	(-0.54 -0.34)	-0.44	0.05	0.00	-0.44	(-0.54 -0.34)	-0.44	0.05	0.00	-0.44	(-0.54 -0.34)	
age (years)	0.32	0.14	0.00	0.32	(0.05 0.58)	0.31	0.13	0.00	0.31	(0.05 0.57)	0.31	0.13	0.00	0.31	(0.05 0.58)	
=1 if ethnicity is non-white	0.14	0.12	0.00	0.14	(-0.10 0.38)	0.14	0.12	0.00	0.14	(-0.10 0.38)	0.14	0.12	0.00	0.14	(-0.10 0.38)	
<i>Child's health endowment</i>																
=1 if birth weight < 2500g	0.40	0.15	0.00	0.40	(0.11 0.69)	0.40	0.15	0.00	0.40	(0.11 0.68)	0.40	0.15	0.00	0.40	(0.11 0.69)	
<i>Size of household</i>																
log of hh size incl. cm	-0.34	0.15	0.00	-0.34	(-0.64 -0.04)	-0.35	0.16	0.00	-0.35	(-0.66 -0.03)	-0.35	0.16	0.00	-0.35	(-0.65 -0.04)	
<i>Number of older siblings</i>																
=1 if no older siblings	-0.07	0.07	0.00	-0.07	(-0.20 0.06)	-0.07	0.07	0.00	-0.07	(-0.20 0.06)	-0.07	0.07	0.00	-0.07	(-0.20 0.06)	
=1 if two or more older siblings	-0.00	0.09	0.00	-0.00	(-0.17 0.17)	-0.00	0.08	0.00	-0.00	(-0.17 0.16)	-0.00	0.09	0.00	-0.00	(-0.17 0.17)	
<i>Respondent's relationship to child</i>																
=1 if natural mother of child	1.11	0.29	0.00	1.11	(0.55 1.67)	1.11	0.29	0.00	1.11	(0.55 1.67)	1.11	0.28	0.00	1.10	(0.55 1.67)	
<i>Country where interview took place</i>																
=1 if wales	0.18	0.29	0.00	0.17	(-0.39 0.75)	0.19	0.29	0.00	0.18	(-0.37 0.75)	0.18	0.28	0.00	0.18	(-0.37 0.73)	
=1 if nireland	-0.23	0.49	0.00	-0.23	(-1.18 0.73)	-0.23	0.48	0.00	-0.22	(-1.19 0.69)	-0.24	0.49	0.00	-0.24	(-1.19 0.73)	
=1 if scotland	-0.05	0.34	0.00	-0.05	(-0.71 0.61)	-0.05	0.35	0.00	-0.05	(-0.71 0.63)	-0.04	0.34	0.00	-0.04	(-0.70 0.64)	
Time and Care																
<i>Time mother spends with child</i>																
=1 if at least just enough	-0.19	0.07	0.00	-0.19	(-0.32 -0.06)	-0.19	0.07	0.00	-0.19	(-0.32 -0.06)	-0.18	0.07	0.00	-0.18	(-0.31 -0.05)	
<i>Childcare</i>																
=1 if formal childcare	-0.06	0.07	0.00	-0.06	(-0.20 0.08)	-0.06	0.07	0.00	-0.06	(-0.20 0.08)	-0.06	0.07	0.00	-0.06	(-0.20 0.08)	
=1 if informal/ other childcare	0.02	0.13	0.00	0.02	(-0.24 0.28)	0.02	0.13	0.00	0.03	(-0.23 0.28)	0.02	0.13	0.00	0.02	(-0.24 0.28)	
=1 if grandparent care	0.08	0.07	0.00	0.08	(-0.06 0.22)	0.08	0.07	0.00	0.08	(-0.06 0.22)	0.08	0.07	0.00	0.08	(-0.06 0.23)	
<i>Maternal employment (t - 1)</i>																
=1 if working part-time	-0.01	0.06	0.00	-0.01	(-0.13 0.11)	-0.01	0.06	0.00	-0.01	(-0.13 0.10)	-0.01	0.06	0.00	-0.01	(-0.13 0.10)	
=1 if working full-time	-0.00	0.12	0.00	-0.01	(-0.23 0.22)	-0.00	0.11	0.00	-0.00	(-0.23 0.22)	-0.00	0.11	0.00	-0.00	(-0.23 0.22)	
<i>How long mother breastfed child</i>																
=1 if at least 6 months	-0.19	0.07	0.00	-0.19	(-0.32 -0.06)	-0.19	0.07	0.00	-0.19	(-0.32 -0.06)	-0.19	0.07	0.00	-0.19	(-0.32 -0.06)	
<i>If child is naughty...</i>																

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Table A.3.33 – continued from previous page

	BAS NV					BAS PC					BAS PS				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.08	0.10	0.00	0.08	(-0.11 0.27)	0.08	0.10	0.00	0.08	(-0.11 0.26)	0.09	0.10	0.00	0.09	(-0.10 0.28)
=1 if mother tells child off	0.15	0.09	0.00	0.15	(-0.02 0.32)	0.15	0.09	0.00	0.15	(-0.02 0.32)	0.15	0.08	0.00	0.15	(-0.01 0.32)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	-0.17	0.07	0.00	-0.18	(-0.32 -0.03)	-0.17	0.07	0.00	-0.17	(-0.31 -0.03)	-0.18	0.07	0.00	-0.18	(-0.32 -0.04)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	0.03	0.08	0.00	0.02	(-0.12 0.18)	0.02	0.08	0.00	0.02	(-0.12 0.17)	0.03	0.08	0.00	0.03	(-0.12 0.18)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.53	0.13	0.00	-0.53	(-0.79 -0.28)	-0.53	0.13	0.00	-0.53	(-0.78 -0.27)	-0.53	0.13	0.00	-0.53	(-0.79 -0.27)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.04	0.06	0.00	0.04	(-0.08 0.16)	0.04	0.06	0.00	0.04	(-0.08 0.17)	0.04	0.06	0.00	0.04	(-0.08 0.17)
<i>Maternal mental health</i>															
=1 if high distress	0.09	0.19	0.00	0.09	(-0.30 0.46)	0.08	0.19	0.00	0.08	(-0.30 0.46)	0.08	0.19	0.00	0.08	(-0.30 0.45)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.06	0.08	0.00	0.06	(-0.10 0.22)	0.06	0.08	0.00	0.06	(-0.10 0.22)	0.06	0.08	0.00	0.06	(-0.10 0.22)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.02	0.07	0.00	-0.02	(-0.16 0.12)	-0.02	0.07	0.00	-0.02	(-0.16 0.12)	-0.02	0.07	0.00	-0.02	(-0.15 0.12)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.06	0.11	0.00	0.06	(-0.16 0.28)	0.06	0.11	0.00	0.06	(-0.15 0.28)	0.06	0.11	0.00	0.06	(-0.15 0.27)
=1 if rented (housing association or private)/ other	0.04	0.09	0.00	0.04	(-0.14 0.22)	0.04	0.09	0.00	0.04	(-0.14 0.22)	0.04	0.09	0.00	0.04	(-0.14 0.22)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.16	0.18	0.00	0.16	(-0.20 0.51)	0.16	0.18	0.00	0.16	(-0.20 0.51)	0.17	0.18	0.00	0.17	(-0.18 0.51)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.10	0.12	0.00	0.10	(-0.13 0.33)	0.10	0.12	0.00	0.10	(-0.13 0.33)	0.10	0.12	0.00	0.10	(-0.13 0.33)
=1 if managerial/ professional occupation	-0.19	0.07	0.00	-0.19	(-0.33 -0.04)	-0.19	0.07	0.00	-0.19	(-0.33 -0.04)	-0.19	0.07	0.00	-0.19	(-0.33 -0.05)
=1 if technical, semi-routine or routine occupation	0.03	0.06	0.00	0.03	(-0.09 0.15)	0.03	0.06	0.00	0.03	(-0.09 0.15)	0.03	0.06	0.00	0.03	(-0.10 0.15)
=1 if can't remember or father died	0.18	0.12	0.00	0.19	(-0.06 0.42)	0.18	0.12	0.00	0.18	(-0.06 0.42)	0.18	0.12	0.00	0.18	(-0.05 0.42)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	0.32	0.12	0.00	0.32	(0.08 0.55)	0.32	0.12	0.00	0.32	(0.08 0.56)	0.33	0.12	0.00	0.33	(0.09 0.56)
Hyperactivity Risk Factors															
<i>Gestational age</i>															
=1 if gestational age < 37 weeks	0.08	0.13	0.00	0.08	(-0.17 0.33)	0.08	0.13	0.00	0.09	(-0.17 0.34)	0.08	0.13	0.00	0.08	(-0.17 0.32)
<i>Maternal mental health (age 1)</i>															
=1 if increased risk of depression/ anxiety	0.09	0.08	0.00	0.09	(-0.08 0.25)	0.09	0.08	0.00	0.09	(-0.08 0.26)	0.08	0.09	0.00	0.08	(-0.09 0.25)
<i>Alcohol consumption during pregnancy</i>															
=1 if 1-2 times per month	0.07	0.09	0.00	0.07	(-0.10 0.25)	0.07	0.09	0.00	0.07	(-0.11 0.25)	0.07	0.09	0.00	0.07	(-0.11 0.25)
=1 if at least once a week	-0.04	0.09	0.00	-0.04	(-0.21 0.14)	-0.04	0.09	0.00	-0.03	(-0.21 0.14)	-0.04	0.09	0.00	-0.04	(-0.22 0.13)
<i>Smoking during pregnancy</i>															
=1 if mother smoked during pregnancy	0.04	0.09	0.00	0.04	(-0.12 0.22)	0.05	0.09	0.00	0.05	(-0.13 0.22)	0.04	0.09	0.00	0.04	(-0.13 0.22)
<i>Smoking in the same room as child</i>															
=1 if anyone smokes in same room as child (age 1)	0.01	0.10	0.00	0.01	(-0.19 0.20)	0.01	0.10	0.00	0.01	(-0.19 0.20)	0.01	0.10	0.00	0.01	(-0.18 0.21)
=1 if anyone smokes in same room as child (age 3)	0.14	0.09	0.00	0.15	(-0.02 0.31)	0.14	0.09	0.00	0.14	(-0.04 0.32)	0.14	0.09	0.00	0.14	(-0.03 0.32)

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Table A.3.33 – continued from previous page

	BAS NV					BAS PC					BAS PS				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
<i>Maternal attachment</i>															
Condon scale score (age 1)	-0.10	0.03	0.00	-0.10	(-0.15 -0.04)	-0.10	0.03	0.00	-0.10	(-0.16 -0.03)	-0.09	0.03	0.00	-0.10	(-0.15 -0.04)
<i>Child-parent relationship</i>															
Condon scale score (age 3)	-0.76	0.03	0.00	-0.76	(-0.83 -0.70)	-0.76	0.03	0.00	-0.76	(-0.82 -0.70)	-0.76	0.03	0.00	-0.76	(-0.83 -0.70)
<i>Maltreatment of children</i>															
Straus's conflict tactics scale (age 3)	0.27	0.04	0.00	0.27	(0.20 0.35)	0.27	0.04	0.00	0.27	(0.20 0.35)	0.27	0.04	0.00	0.27	(0.20 0.34)
constant	4.18	0.63	0.01	4.18	(2.93 5.41)	4.19	0.62	0.01	4.19	(2.98 5.42)	4.18	0.62	0.01	4.18	(2.95 5.40)
σ_{τ}	1.69	0.02	0.00	1.69	(1.65 1.73)	1.69	0.02	0.00	1.69	(1.65 1.73)	1.69	0.02	0.00	1.69	(1.65 1.73)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.34: Bayesian Estimates: SDQ ES/ CP and # Chronic Conditions (Eq. 1, LP, Age 5)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
number of health problems	0.13	0.09	0.00	0.12	(-0.04 0.32)	0.11	0.07	0.00	0.10	(-0.03 0.25)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.09	0.08	0.00	-0.09	(-0.24 0.06)	-0.07	0.07	0.00	-0.08	(-0.21 0.06)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.07	0.07	0.00	0.07	(-0.08 0.21)	0.17	0.07	0.00	0.17	(0.04 0.31)	
=1 if NVQ level 3	0.08	0.09	0.00	0.08	(-0.09 0.25)	-0.07	0.08	0.00	-0.07	(-0.23 0.08)	
=1 if overseas qual. only	0.04	0.17	0.00	0.04	(-0.29 0.38)	0.24	0.16	0.00	0.24	(-0.08 0.55)	
=1 if none of these	0.21	0.10	0.00	0.21	(0.01 0.42)	0.31	0.10	0.00	0.31	(0.13 0.50)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	-0.11	0.10	0.00	-0.11	(-0.32 0.09)	0.23	0.10	0.00	0.23	(0.04 0.42)	
=1 if 25 to 29 years	0.00	0.10	0.00	0.00	(-0.19 0.19)	0.24	0.09	0.00	0.24	(0.07 0.42)	
=1 if 30 to 34 years	-0.04	0.10	0.00	-0.05	(-0.24 0.15)	0.07	0.09	0.00	0.07	(-0.11 0.25)	
<i>Child demography</i>											
=1 if female	0.21	0.05	0.00	0.21	(0.11 0.32)	-0.11	0.05	0.00	-0.11	(-0.21 -0.02)	
age (years)	0.03	0.10	0.00	0.02	(-0.16 0.22)	-0.05	0.09	0.00	-0.05	(-0.22 0.13)	
=1 if ethnicity is non-white	0.02	0.10	0.00	0.02	(-0.17 0.22)	0.04	0.09	0.00	0.04	(-0.14 0.22)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.01	0.10	0.00	0.01	(-0.18 0.21)	-0.07	0.09	0.00	-0.07	(-0.25 0.11)	
<i>Size of household</i>											
log of hh size incl. cm	0.15	0.10	0.00	0.15	(-0.05 0.35)	0.18	0.09	0.00	0.18	(0.00 0.37)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.12	0.07	0.00	0.12	(-0.02 0.25)	-0.08	0.07	0.00	-0.08	(-0.20 0.05)	
=1 if two or more older siblings	-0.02	0.09	0.00	-0.02	(-0.19 0.15)	-0.03	0.08	0.00	-0.03	(-0.19 0.12)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.02	0.19	0.00	0.02	(-0.34 0.39)	0.25	0.17	0.00	0.25	(-0.09 0.58)	
<i>Country where interview took place</i>											
=1 if wales	-0.01	0.30	0.00	-0.01	(-0.60 0.59)	0.09	0.28	0.00	0.09	(-0.47 0.65)	
=1 if nireland	-0.03	0.45	0.00	-0.03	(-0.89 0.84)	0.68	0.43	0.00	0.69	(-0.16 1.53)	
=1 if scotland	0.05	0.35	0.00	0.05	(-0.64 0.75)	-0.03	0.34	0.00	-0.03	(-0.68 0.63)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.11	0.06	0.00	-0.11	(-0.23 0.01)	-0.01	0.06	0.00	-0.01	(-0.12 0.10)	
<i>Childcare</i>											
=1 if formal childcare	-0.09	0.12	0.00	-0.09	(-0.33 0.14)	0.30	0.11	0.00	0.30	(0.08 0.52)	
=1 if informal/ other childcare	-0.10	0.09	0.00	-0.10	(-0.29 0.08)	0.13	0.09	0.00	0.13	(-0.04 0.30)	
=1 if grandparent care	0.11	0.06	0.00	0.11	(-0.02 0.23)	0.01	0.06	0.00	0.01	(-0.10 0.13)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.08	0.07	0.00	-0.08	(-0.21 0.05)	0.02	0.06	0.00	0.02	(-0.10 0.14)	
=1 if working full-time	-0.04	0.14	0.00	-0.04	(-0.32 0.23)	-0.01	0.13	0.00	-0.01	(-0.26 0.25)	
<i>How long mother breastfed child</i>											

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Table A.3.34 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.14	0.09	0.00	0.14	(-0.03 0.31)	-0.04	0.08	0.00	-0.04	(-0.20 0.12)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.05	0.20	0.00	0.05	(-0.35 0.45)	0.98	0.19	0.00	0.98	(0.60 1.35)
=1 if mother tells child off	0.18	0.05	0.00	0.18	(0.08 0.29)	0.45	0.05	0.00	0.45	(0.35 0.54)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.08	0.08	0.00	-0.08	(-0.24 0.08)	-0.33	0.07	0.00	-0.33	(-0.47 -0.18)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.14	0.07	0.00	0.14	(0.01 0.28)	0.10	0.06	0.00	0.10	(-0.02 0.23)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.17	0.12	0.00	-0.16	(-0.39 0.06)	-0.33	0.11	0.00	-0.33	(-0.54 -0.12)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.14	0.06	0.00	0.14	(0.02 0.26)	0.16	0.06	0.00	0.16	(0.05 0.27)
<i>Maternal mental health</i>										
=1 if high distress	0.71	0.11	0.00	0.71	(0.49 0.92)	0.52	0.10	0.00	0.52	(0.32 0.72)
<i>Does mother currently smoke</i>										
=1 if currently smokes	-0.01	0.06	0.00	-0.01	(-0.12 0.10)	0.16	0.05	0.00	0.16	(0.05 0.25)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.03	0.08	0.00	-0.03	(-0.19 0.13)	0.06	0.07	0.00	0.06	(-0.09 0.21)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.13	0.09	0.00	0.13	(-0.04 0.30)	0.12	0.08	0.00	0.12	(-0.04 0.27)
=1 if rented (housing association or private)/ other	0.04	0.08	0.00	0.04	(-0.10 0.20)	0.15	0.07	0.00	0.15	(0.01 0.29)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.16	0.11	0.00	-0.16	(-0.38 0.06)	-0.17	0.10	0.00	-0.17	(-0.37 0.04)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.21	0.09	0.00	0.21	(0.02 0.39)	0.16	0.09	0.00	0.16	(-0.01 0.32)
=1 if managerial/ professional occupation	-0.01	0.09	0.00	-0.01	(-0.18 0.16)	0.06	0.08	0.00	0.06	(-0.09 0.22)
=1 if technical, semi-routine or routine occupation	0.03	0.07	0.00	0.03	(-0.10 0.16)	0.01	0.06	0.00	0.01	(-0.11 0.13)
=1 if can't remember or father died	0.07	0.10	0.00	0.08	(-0.11 0.27)	0.07	0.09	0.00	0.07	(-0.11 0.24)
constant	0.13	0.61	0.01	0.13	(-1.08 1.33)	0.16	0.58	0.01	0.17	(-0.98 1.31)
σ_ϵ	0.95	0.03	0.00	0.95	(0.88 1.00)	0.88	0.02	0.00	0.89	(0.83 0.92)
σ_ζ	0.17	0.10	0.01	0.15	(0.04 0.39)	0.09	0.09	0.01	0.04	(0.00 0.31)
$\rho_{\zeta\epsilon}$	-0.11	0.51	0.04	-0.12	(-0.93 0.79)	-0.02	0.54	0.05	-0.04	(-0.90 0.89)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.35: Bayesian Estimates: SDQ ES/ CP and # Chronic Conditions (Eq. 1, TP, Age 5)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
number of health problems	0.74	0.02	0.00	0.74	(0.70 0.79)	0.60	0.03	0.00	0.60	(0.54 0.65)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.17	0.03	0.00	-0.17	(-0.22 -0.12)	-0.17	0.03	0.00	-0.17	(-0.24 -0.11)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.01	0.03	0.00	0.01	(-0.05 0.07)	0.09	0.03	0.00	0.10	(0.03 0.15)	
=1 if NVQ level 3	-0.05	0.03	0.00	-0.06	(-0.11 0.01)	0.02	0.03	0.00	0.02	(-0.05 0.08)	
=1 if overseas qual. only	0.04	0.09	0.00	0.03	(-0.11 0.23)	0.29	0.09	0.00	0.29	(0.13 0.47)	
=1 if none of these	0.19	0.06	0.00	0.18	(0.08 0.31)	0.24	0.06	0.00	0.24	(0.12 0.35)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	0.09	0.04	0.00	0.09	(-0.02 0.16)	0.20	0.04	0.00	0.20	(0.11 0.29)	
=1 if 25 to 29 years	0.06	0.03	0.00	0.06	(-0.01 0.11)	-0.01	0.04	0.00	-0.01	(-0.08 0.07)	
=1 if 30 to 34 years	0.05	0.03	0.00	0.05	(-0.02 0.10)	0.00	0.03	0.00	0.00	(-0.06 0.07)	
<i>Child demography</i>											
=1 if female	0.04	0.03	0.00	0.04	(-0.02 0.10)	-0.13	0.02	0.00	-0.13	(-0.17 -0.08)	
age (years)	-0.01	0.04	0.00	-0.01	(-0.09 0.06)	-0.15	0.04	0.00	-0.15	(-0.23 -0.06)	
=1 if ethnicity is non-white	0.07	0.04	0.00	0.07	(-0.02 0.16)	0.04	0.05	0.00	0.04	(-0.06 0.14)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.12	0.05	0.00	0.12	(0.01 0.20)	0.08	0.05	0.00	0.08	(-0.03 0.18)	
<i>Size of household</i>											
log of hh size incl. cm	0.14	0.07	0.00	0.14	(0.02 0.29)	0.13	0.07	0.00	0.13	(-0.00 0.27)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.13	0.02	0.00	0.12	(0.08 0.17)	-0.18	0.03	0.00	-0.19	(-0.23 -0.13)	
=1 if two or more older siblings	-0.08	0.03	0.00	-0.08	(-0.14 -0.03)	-0.08	0.03	0.00	-0.08	(-0.14 -0.01)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.10	0.08	0.00	0.10	(-0.05 0.25)	0.08	0.09	0.00	0.08	(-0.10 0.27)	
<i>Country where interview took place</i>											
=1 if wales	-0.07	0.09	0.00	-0.07	(-0.25 0.12)	-0.03	0.11	0.00	-0.03	(-0.24 0.17)	
=1 if nireland	-0.01	0.23	0.00	-0.02	(-0.43 0.49)	-0.10	0.24	0.00	-0.10	(-0.56 0.37)	
=1 if scotland	0.14	0.14	0.00	0.16	(-0.15 0.40)	0.11	0.14	0.00	0.11	(-0.15 0.38)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.07	0.02	0.00	-0.07	(-0.11 -0.04)	-0.05	0.02	0.00	-0.05	(-0.09 -0.00)	
<i>Childcare</i>											
=1 if formal childcare	-0.05	0.04	0.00	-0.05	(-0.14 0.03)	-0.03	0.05	0.00	-0.03	(-0.12 0.07)	
=1 if informal/ other childcare	0.10	0.04	0.00	0.10	(-0.01 0.17)	0.02	0.04	0.00	0.02	(-0.07 0.10)	
=1 if grandparent care	-0.01	0.03	0.00	-0.01	(-0.05 0.05)	-0.01	0.03	0.00	-0.01	(-0.06 0.04)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.08	0.03	0.00	-0.07	(-0.14 -0.03)	0.04	0.02	0.00	0.04	(-0.01 0.09)	
=1 if working full-time	-0.10	0.06	0.00	-0.09	(-0.23 -0.01)	0.05	0.05	0.00	0.05	(-0.05 0.15)	
<i>How long mother breastfed child</i>											

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Table A.3.35 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.00	0.03	0.00	0.01	(-0.06 0.05)	-0.12	0.03	0.00	-0.12	(-0.18 -0.07)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.24	0.08	0.00	0.25	(0.09 0.39)	0.72	0.09	0.00	0.71	(0.54 0.90)
=1 if mother tells child off	0.11	0.02	0.00	0.11	(0.07 0.16)	0.51	0.02	0.00	0.51	(0.47 0.56)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.16	0.03	0.00	-0.16	(-0.23 -0.10)	-0.29	0.04	0.00	-0.29	(-0.38 -0.21)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.08	0.03	0.00	0.08	(0.02 0.13)	0.11	0.03	0.00	0.11	(0.04 0.17)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.15	0.04	0.00	-0.15	(-0.23 -0.06)	-0.22	0.06	0.00	-0.22	(-0.34 -0.11)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.10	0.02	0.00	0.10	(0.06 0.14)	0.04	0.03	0.00	0.04	(-0.02 0.09)
<i>Maternal mental health</i>										
=1 if high distress	0.47	0.06	0.00	0.47	(0.33 0.58)	0.52	0.08	0.00	0.52	(0.37 0.67)
<i>Does mother currently smoke</i>										
=1 if currently smokes	-0.03	0.02	0.00	-0.03	(-0.07 0.01)	0.12	0.03	0.00	0.12	(0.07 0.18)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	0.00	0.03	0.00	0.00	(-0.07 0.05)	0.06	0.03	0.00	0.05	(0.01 0.11)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.05	0.04	0.00	0.05	(-0.03 0.14)	0.20	0.05	0.00	0.20	(0.11 0.29)
=1 if rented (housing association or private)/ other	-0.08	0.03	0.00	-0.08	(-0.14 -0.01)	0.07	0.04	0.00	0.07	(0.00 0.15)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.12	0.05	0.00	-0.12	(-0.21 -0.01)	0.01	0.06	0.00	0.01	(-0.11 0.13)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.08	0.04	0.00	0.09	(-0.02 0.16)	0.09	0.05	0.00	0.09	(-0.00 0.19)
=1 if managerial/ professional occupation	0.07	0.02	0.00	0.07	(0.02 0.12)	-0.01	0.03	0.00	-0.01	(-0.07 0.05)
=1 if technical, semi-routine or routine occupation	0.00	0.02	0.00	0.00	(-0.04 0.04)	0.02	0.03	0.00	0.02	(-0.05 0.07)
=1 if can't remember or father died	-0.01	0.04	0.00	-0.01	(-0.09 0.07)	0.09	0.05	0.00	0.09	(-0.01 0.20)
constant	0.97	0.26	0.00	0.97	(0.46 1.48)	1.62	0.32	0.01	1.63	(0.97 2.24)
σ_ϵ	0.58	0.01	0.00	0.58	(0.55 0.59)	0.57	0.03	0.00	0.57	(0.52 0.63)
σ_ζ	0.83	0.01	0.00	0.83	(0.81 0.86)	0.74	0.02	0.00	0.75	(0.69 0.79)
$\rho_{\zeta\epsilon}$	-1.00	0.00	0.00	-1.00	(-1 -1.00)	-0.99	0.01	0.00	-1.00	(-1.00 -0.97)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.36: Bayesian Estimates: SDQ ES/ CP and # Chronic Conditions (Eq. 2, LP, Age 5)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.11	0.19	0.01	-0.12	(-0.48 0.26)	-0.14	0.17	0.01	-0.13	(-0.48 0.20)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	-0.03	0.21	0.00	-0.03	(-0.43 0.37)	-0.03	0.21	0.00	-0.03	(-0.44 0.38)	
=1 if NVQ level 3	0.08	0.24	0.00	0.08	(-0.38 0.54)	0.08	0.23	0.00	0.08	(-0.39 0.54)	
=1 if overseas qual. only	-0.49	0.51	0.01	-0.48	(-1.53 0.45)	-0.48	0.50	0.01	-0.47	(-1.52 0.45)	
=1 if none of these	-0.19	0.28	0.00	-0.19	(-0.75 0.36)	-0.19	0.28	0.00	-0.19	(-0.74 0.36)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	-0.02	0.27	0.00	-0.02	(-0.54 0.52)	-0.02	0.27	0.00	-0.01	(-0.54 0.51)	
=1 if 25 to 29 years	-0.05	0.25	0.00	-0.05	(-0.52 0.45)	-0.04	0.25	0.00	-0.05	(-0.52 0.45)	
=1 if 30 to 34 years	-0.05	0.25	0.00	-0.05	(-0.54 0.45)	-0.04	0.26	0.00	-0.04	(-0.55 0.47)	
<i>Child demography</i>											
=1 if female	-0.40	0.14	0.00	-0.40	(-0.68 -0.11)	-0.39	0.14	0.00	-0.39	(-0.68 -0.11)	
age (years)	-0.31	0.30	0.02	-0.30	(-0.91 0.28)	-0.30	0.29	0.01	-0.29	(-0.88 0.25)	
=1 if ethnicity is non-white	0.18	0.25	0.00	0.19	(-0.30 0.66)	0.18	0.25	0.00	0.18	(-0.31 0.66)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.14	0.26	0.00	0.14	(-0.37 0.62)	0.13	0.26	0.00	0.14	(-0.39 0.62)	
<i>Size of household</i>											
log of hh size incl. cm	-0.24	0.27	0.01	-0.24	(-0.79 0.28)	-0.23	0.28	0.01	-0.23	(-0.79 0.30)	
<i>Number of older siblings</i>											
=1 if no older siblings	-0.57	0.18	0.00	-0.56	(-0.93 -0.21)	-0.57	0.19	0.00	-0.57	(-0.93 -0.21)	
=1 if two or more older siblings	-0.09	0.22	0.00	-0.09	(-0.53 0.34)	-0.10	0.22	0.00	-0.09	(-0.54 0.34)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	-0.30	0.45	0.01	-0.31	(-1.16 0.59)	-0.31	0.44	0.01	-0.32	(-1.16 0.59)	
<i>Country where interview took place</i>											
=1 if wales	-0.06	0.55	0.01	-0.06	(-1.13 1.01)	-0.05	0.55	0.01	-0.05	(-1.12 1.02)	
=1 if nireland	-0.35	0.61	0.01	-0.35	(-1.57 0.85)	-0.34	0.61	0.01	-0.34	(-1.55 0.83)	
=1 if scotland	-0.06	0.56	0.01	-0.05	(-1.20 1.00)	-0.07	0.56	0.01	-0.07	(-1.18 1.01)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.18	0.19	0.00	-0.18	(-0.55 0.19)	-0.19	0.19	0.00	-0.19	(-0.56 0.18)	
<i>Childcare</i>											
=1 if formal childcare	0.20	0.20	0.00	0.20	(-0.19 0.59)	0.21	0.20	0.00	0.21	(-0.19 0.59)	
=1 if informal/ other childcare	0.14	0.33	0.00	0.14	(-0.53 0.78)	0.14	0.33	0.00	0.14	(-0.53 0.78)	
=1 if grandparent care	0.05	0.20	0.00	0.05	(-0.33 0.43)	0.05	0.19	0.00	0.05	(-0.33 0.42)	
<i>Maternal employment (t - 1)</i>											
=1 if working part-time	0.16	0.17	0.00	0.16	(-0.18 0.50)	0.16	0.18	0.00	0.16	(-0.18 0.51)	
=1 if working full-time	-0.25	0.43	0.00	-0.23	(-1.11 0.58)	-0.24	0.43	0.00	-0.24	(-1.12 0.56)	
<i>How long mother breastfed child</i>											
=1 if at least 6 months	-0.60	0.27	0.00	-0.59	(-1.15 -0.08)	-0.60	0.27	0.00	-0.59	(-1.15 -0.08)	
<i>If child is naughty...</i>											

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Table A.3.36 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.13	0.24	0.00	-0.13	(-0.62 0.33)	-0.13	0.24	0.00	-0.13	(-0.62 0.33)
=1 if mother tells child off	-0.10	0.20	0.00	-0.10	(-0.48 0.29)	-0.10	0.20	0.00	-0.10	(-0.48 0.29)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	0.15	0.18	0.00	0.15	(-0.21 0.50)	0.15	0.18	0.00	0.15	(-0.21 0.51)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.18	0.18	0.00	0.18	(-0.17 0.53)	0.19	0.18	0.00	0.19	(-0.17 0.54)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	0.33	0.27	0.00	0.32	(-0.20 0.87)	0.34	0.28	0.00	0.34	(-0.19 0.91)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.70	0.15	0.00	0.70	(0.40 0.99)	0.70	0.15	0.00	0.70	(0.40 1.00)
<i>Maternal mental health</i>										
=1 if high distress	0.12	0.26	0.00	0.13	(-0.40 0.64)	0.13	0.26	0.00	0.14	(-0.40 0.63)
<i>Does mother currently smoke</i>										
=1 if currently smokes	-0.05	0.15	0.00	-0.05	(-0.34 0.25)	-0.05	0.15	0.00	-0.05	(-0.35 0.26)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	0.01	0.23	0.00	0.01	(-0.44 0.45)	0.02	0.23	0.00	0.02	(-0.43 0.46)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.28	0.22	0.00	0.28	(-0.15 0.72)	0.28	0.22	0.00	0.28	(-0.15 0.70)
=1 if rented (housing association or private)/ other	0.18	0.20	0.00	0.18	(-0.22 0.59)	0.18	0.20	0.00	0.18	(-0.22 0.57)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	0.10	0.30	0.00	0.09	(-0.48 0.72)	0.11	0.30	0.01	0.10	(-0.47 0.71)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.31	0.25	0.00	0.31	(-0.19 0.80)	0.30	0.25	0.00	0.30	(-0.19 0.78)
=1 if managerial/ professional occupation	0.25	0.24	0.00	0.25	(-0.23 0.73)	0.25	0.25	0.00	0.25	(-0.25 0.73)
=1 if technical, semi-routine or routine occupation	0.33	0.18	0.00	0.33	(-0.02 0.70)	0.33	0.19	0.00	0.33	(-0.03 0.69)
=1 if can't remember or father died	0.31	0.26	0.00	0.31	(-0.21 0.81)	0.31	0.26	0.00	0.30	(-0.21 0.82)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	-0.02	0.23	0.00	-0.02	(-0.48 0.42)	-0.03	0.23	0.00	-0.03	(-0.49 0.42)
constant	-0.43	0.92	0.05	-0.42	(-2.26 1.36)	-0.35	0.86	0.04	-0.36	(-2.02 1.35)
α	7.90	5.64	0.28	6.33	(2.23 22.68)	7.80	5.59	0.27	6.11	(2.36 22.87)
$\ln\alpha$	1.88	0.60	0.03	1.85	(0.80 3.12)	1.87	0.59	0.03	1.81	(0.86 3.13)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.37: Bayesian Estimates: SDQ ES/ CP and # Chronic Conditions (Eq. 2, TP, Age 5)

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Standard Background Controls										
<i>Income</i>										
log of permanent family income (weekly, imp.)	0.01	0.08	0.00	0.01	(-0.14 0.17)	0.00	0.09	0.01	0.01	(-0.17 0.17)
<i>Maternal education</i>										
=1 if NVQ level 1 or 2	-0.18	0.08	0.00	-0.18	(-0.33 -0.02)	-0.20	0.09	0.00	-0.20	(-0.37 -0.04)
=1 if NVQ level 3	-0.03	0.09	0.00	-0.03	(-0.21 0.15)	-0.05	0.09	0.00	-0.04	(-0.23 0.14)
=1 if overseas qual. only	0.13	0.23	0.00	0.13	(-0.33 0.55)	0.02	0.24	0.00	0.02	(-0.46 0.46)
=1 if none of these	-0.32	0.15	0.00	-0.32	(-0.61 -0.04)	-0.29	0.16	0.00	-0.29	(-0.60 0.01)
<i>Mother's age at birth</i>										
=1 if less than 25 years	-0.03	0.12	0.00	-0.03	(-0.27 0.21)	-0.05	0.13	0.00	-0.05	(-0.30 0.20)
=1 if 25 to 29 years	0.08	0.10	0.00	0.08	(-0.11 0.27)	0.09	0.10	0.00	0.09	(-0.11 0.28)
=1 if 30 to 34 years	-0.01	0.09	0.00	-0.01	(-0.18 0.17)	0.03	0.10	0.00	0.03	(-0.16 0.22)
<i>Child demography</i>										
=1 if female	-0.08	0.07	0.00	-0.08	(-0.21 0.06)	-0.06	0.06	0.00	-0.06	(-0.18 0.07)
age (years)	-0.09	0.15	0.01	-0.09	(-0.39 0.19)	-0.09	0.16	0.01	-0.10	(-0.40 0.22)
=1 if ethnicity is non-white	0.01	0.14	0.00	0.01	(-0.27 0.28)	0.07	0.14	0.00	0.07	(-0.22 0.35)
<i>Child's health endowment</i>										
=1 if birth weight < 2500g	0.31	0.12	0.00	0.31	(0.07 0.55)	0.33	0.13	0.00	0.33	(0.06 0.58)
<i>Size of household</i>										
log of hh size incl. cm	-0.18	0.19	0.01	-0.18	(-0.57 0.19)	-0.44	0.19	0.01	-0.44	(-0.82 -0.06)
<i>Number of older siblings</i>										
=1 if no older siblings	-0.21	0.08	0.00	-0.21	(-0.36 -0.06)	-0.19	0.08	0.00	-0.19	(-0.35 -0.03)
=1 if two or more older siblings	-0.12	0.10	0.00	-0.12	(-0.32 0.08)	-0.09	0.10	0.00	-0.09	(-0.29 0.11)
<i>Respondent's relationship to child</i>										
=1 if natural mother of child	-0.29	0.31	0.01	-0.31	(-0.87 0.33)	-0.15	0.31	0.01	-0.16	(-0.75 0.48)
<i>Country where interview took place</i>										
=1 if wales	0.70	0.31	0.01	0.70	(0.09 1.29)	0.62	0.30	0.01	0.62	(0.03 1.20)
=1 if nireland	-0.01	0.44	0.01	-0.01	(-0.91 0.84)	-0.06	0.45	0.01	-0.06	(-0.94 0.81)
=1 if scotland	-0.43	0.37	0.01	-0.43	(-1.15 0.30)	-0.43	0.38	0.01	-0.44	(-1.15 0.31)
Time and Care										
<i>Time mother spends with child</i>										
=1 if at least just enough	-0.07	0.08	0.00	-0.07	(-0.21 0.09)	-0.06	0.08	0.00	-0.06	(-0.21 0.10)
<i>Childcare</i>										
=1 if formal childcare	0.05	0.08	0.00	0.05	(-0.12 0.21)	-0.01	0.08	0.00	-0.01	(-0.18 0.15)
=1 if informal/ other childcare	-0.23	0.17	0.00	-0.23	(-0.57 0.09)	-0.33	0.17	0.00	-0.33	(-0.67 0.01)
=1 if grandparent care	0.03	0.09	0.00	0.04	(-0.13 0.20)	0.00	0.09	0.00	0.00	(-0.17 0.17)
<i>Maternal employment (t - 1)</i>										
=1 if working part-time	-0.05	0.07	0.00	-0.05	(-0.19 0.09)	-0.10	0.07	0.00	-0.10	(-0.24 0.04)
=1 if working full-time	-0.10	0.14	0.00	-0.10	(-0.38 0.17)	-0.09	0.14	0.00	-0.08	(-0.37 0.18)
<i>How long mother breastfed child</i>										
=1 if at least 6 months	0.08	0.08	0.00	0.08	(-0.08 0.23)	0.10	0.08	0.00	0.10	(-0.06 0.26)
<i>If child is naughty...</i>										

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Table A.3.37 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.23	0.11	0.00	-0.23	(-0.46 -0.02)	-0.15	0.12	0.00	-0.15	(-0.39 0.06)
=1 if mother tells child off	0.17	0.09	0.00	0.17	(0.00 0.35)	0.19	0.09	0.00	0.19	(0.02 0.37)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.05	0.08	0.00	-0.05	(-0.20 0.11)	-0.06	0.08	0.00	-0.06	(-0.23 0.10)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.01	0.09	0.00	0.01	(-0.17 0.17)	0.01	0.09	0.00	0.01	(-0.17 0.18)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	0.03	0.15	0.00	0.03	(-0.25 0.34)	-0.11	0.15	0.00	-0.11	(-0.40 0.20)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.39	0.07	0.00	0.39	(0.26 0.51)	0.40	0.07	0.00	0.40	(0.26 0.53)
<i>Maternal mental health</i>										
=1 if high distress	0.23	0.19	0.00	0.24	(-0.14 0.59)	0.32	0.19	0.00	0.33	(-0.04 0.68)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.13	0.07	0.00	0.13	(-0.01 0.28)	0.18	0.08	0.00	0.18	(0.03 0.33)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.15	0.09	0.00	-0.15	(-0.32 0.01)	-0.16	0.09	0.00	-0.16	(-0.32 0.01)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.15	0.12	0.00	0.15	(-0.08 0.37)	0.08	0.12	0.00	0.08	(-0.16 0.31)
=1 if rented (housing association or private)/ other	0.01	0.10	0.00	0.01	(-0.20 0.21)	-0.04	0.11	0.00	-0.04	(-0.25 0.17)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.11	0.19	0.00	-0.11	(-0.48 0.29)	0.01	0.20	0.00	0.01	(-0.37 0.43)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	-0.11	0.13	0.00	-0.11	(-0.37 0.16)	-0.04	0.14	0.00	-0.04	(-0.32 0.23)
=1 if managerial/ professional occupation	-0.11	0.09	0.00	-0.11	(-0.28 0.06)	-0.06	0.09	0.00	-0.06	(-0.24 0.11)
=1 if technical, semi-routine or routine occupation	0.03	0.07	0.00	0.03	(-0.12 0.17)	0.03	0.08	0.00	0.03	(-0.13 0.19)
=1 if can't remember or father died	-0.00	0.14	0.00	-0.00	(-0.28 0.26)	-0.04	0.15	0.00	-0.04	(-0.33 0.25)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	0.11	0.13	0.00	0.12	(-0.14 0.36)	0.25	0.13	0.00	0.25	(-0.01 0.49)
constant	-1.28	0.61	0.04	-1.28	(-2.46 -0.08)	-1.04	0.67	0.05	-1.07	(-2.28 0.37)
α	33.64	18.00	1.60	29.59	(12.99 85.24)	29.95	16.19	1.50	26.33	(10.38 72.51)
$\ln\alpha$	3.40	0.46	0.04	3.39	(2.56 4.45)	3.28	0.49	0.05	3.27	(2.34 4.28)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.38: Bayesian Estimates: SDQ PR/ PB and # Chronic Conditions (Eq. 1, LP, Age 5)

	SDQ PR					SDQ PB					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
number of health problems	0.09	0.09	0.00	0.08	(-0.07 0.28)	0.06	0.12	0.00	0.07	(-0.21 0.26)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.11	0.07	0.00	-0.11	(-0.26 0.04)	-0.08	0.08	0.00	-0.09	(-0.23 0.07)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.21	0.07	0.00	0.21	(0.06 0.35)	-0.13	0.08	0.00	-0.13	(-0.28 0.02)	
=1 if NVQ level 3	0.05	0.09	0.00	0.05	(-0.12 0.22)	0.06	0.09	0.00	0.06	(-0.11 0.23)	
=1 if overseas qual. only	0.06	0.17	0.00	0.06	(-0.28 0.40)	-0.04	0.18	0.00	-0.04	(-0.38 0.31)	
=1 if none of these	0.14	0.10	0.00	0.15	(-0.06 0.35)	-0.24	0.11	0.00	-0.24	(-0.45 -0.04)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	-0.01	0.10	0.00	-0.01	(-0.22 0.19)	-0.17	0.10	0.00	-0.17	(-0.38 0.03)	
=1 if 25 to 29 years	-0.04	0.09	0.00	-0.04	(-0.23 0.15)	-0.00	0.10	0.00	-0.00	(-0.20 0.19)	
=1 if 30 to 34 years	-0.02	0.10	0.00	-0.02	(-0.21 0.18)	-0.12	0.10	0.00	-0.11	(-0.31 0.08)	
<i>Child demography</i>											
=1 if female	-0.11	0.05	0.00	-0.11	(-0.21 -0.00)	0.19	0.05	0.00	0.19	(0.09 0.30)	
age (years)	0.06	0.10	0.00	0.06	(-0.13 0.25)	0.11	0.10	0.00	0.11	(-0.08 0.30)	
=1 if ethnicity is non-white	0.21	0.10	0.00	0.21	(0.02 0.40)	0.01	0.10	0.00	0.01	(-0.18 0.21)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.05	0.10	0.00	0.05	(-0.14 0.25)	0.13	0.10	0.00	0.13	(-0.06 0.33)	
<i>Size of household</i>											
log of hh size incl. cm	-0.04	0.10	0.00	-0.04	(-0.23 0.16)	-0.08	0.10	0.00	-0.08	(-0.28 0.12)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.10	0.07	0.00	0.10	(-0.03 0.24)	0.05	0.07	0.00	0.05	(-0.08 0.19)	
=1 if two or more older siblings	-0.02	0.08	0.00	-0.02	(-0.19 0.14)	-0.05	0.09	0.00	-0.05	(-0.23 0.12)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.08	0.19	0.00	0.08	(-0.28 0.45)	0.28	0.19	0.00	0.28	(-0.10 0.65)	
<i>Country where interview took place</i>											
=1 if wales	-0.08	0.30	0.00	-0.08	(-0.67 0.52)	-0.05	0.30	0.00	-0.05	(-0.66 0.53)	
=1 if nireland	0.32	0.45	0.00	0.32	(-0.56 1.21)	-0.29	0.45	0.00	-0.29	(-1.16 0.59)	
=1 if scotland	0.55	0.36	0.00	0.55	(-0.16 1.25)	-0.34	0.35	0.00	-0.35	(-1.03 0.35)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.08	0.06	0.00	-0.08	(-0.19 0.04)	-0.02	0.06	0.00	-0.02	(-0.14 0.10)	
<i>Childcare</i>											
=1 if formal childcare	0.06	0.12	0.00	0.06	(-0.18 0.30)	-0.15	0.12	0.00	-0.15	(-0.39 0.10)	
=1 if informal/ other childcare	-0.10	0.09	0.00	-0.10	(-0.28 0.08)	0.06	0.09	0.00	0.06	(-0.12 0.25)	
=1 if grandparent care	0.01	0.06	0.00	0.01	(-0.12 0.14)	0.07	0.07	0.00	0.07	(-0.06 0.20)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.08	0.07	0.00	-0.08	(-0.21 0.05)	-0.07	0.07	0.00	-0.07	(-0.20 0.06)	
=1 if working full-time	0.01	0.14	0.00	0.01	(-0.27 0.28)	-0.21	0.15	0.00	-0.21	(-0.50 0.07)	
<i>How long mother breastfed child</i>											

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Table A.3.38 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.09	0.09	0.00	0.09	(-0.09 0.26)	-0.12	0.09	0.00	-0.12	(-0.30 0.06)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.24	0.20	0.00	0.24	(-0.17 0.64)	-0.10	0.21	0.00	-0.11	(-0.51 0.31)
=1 if mother tells child off	0.02	0.05	0.00	0.02	(-0.09 0.12)	-0.22	0.05	0.00	-0.22	(-0.33 -0.11)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.14	0.08	0.00	-0.14	(-0.29 0.02)	0.28	0.08	0.00	0.28	(0.13 0.44)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.02	0.07	0.00	0.02	(-0.11 0.15)	-0.03	0.07	0.00	-0.03	(-0.17 0.10)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.16	0.12	0.00	-0.16	(-0.39 0.07)	0.24	0.12	0.00	0.24	(0.01 0.47)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.11	0.06	0.00	0.11	(-0.00 0.23)	0.00	0.06	0.00	0.00	(-0.12 0.12)
<i>Maternal mental health</i>										
=1 if high distress	0.49	0.11	0.00	0.49	(0.28 0.71)	-0.17	0.11	0.00	-0.17	(-0.39 0.05)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.00	0.06	0.00	0.00	(-0.11 0.11)	0.00	0.06	0.00	-0.00	(-0.11 0.11)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.10	0.08	0.00	-0.10	(-0.26 0.06)	0.07	0.08	0.00	0.07	(-0.10 0.23)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.18	0.09	0.00	0.18	(0.01 0.35)	-0.09	0.09	0.00	-0.09	(-0.26 0.08)
=1 if rented (housing association or private)/ other	0.16	0.08	0.00	0.16	(0.01 0.31)	-0.02	0.08	0.00	-0.02	(-0.17 0.14)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.29	0.11	0.00	-0.29	(-0.51 -0.06)	0.22	0.12	0.00	0.22	(-0.01 0.45)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.26	0.09	0.00	0.26	(0.08 0.44)	0.04	0.10	0.00	0.04	(-0.15 0.23)
=1 if managerial/ professional occupation	0.13	0.09	0.00	0.13	(-0.04 0.30)	-0.02	0.09	0.00	-0.02	(-0.19 0.15)
=1 if technical, semi-routine or routine occupation	0.06	0.07	0.00	0.06	(-0.07 0.19)	0.09	0.07	0.00	0.09	(-0.04 0.23)
=1 if can't remember or father died	0.20	0.10	0.00	0.20	(0.01 0.39)	0.14	0.10	0.00	0.13	(-0.06 0.32)
constant	0.49	0.61	0.01	0.49	(-0.72 1.68)	-0.71	0.61	0.01	-0.72	(-1.91 0.50)
σ_ϵ	0.94	0.03	0.00	0.95	(0.87 0.99)	0.95	0.04	0.00	0.96	(0.84 1.01)
σ_ζ	0.16	0.11	0.01	0.13	(0.01 0.43)	0.23	0.12	0.01	0.21	(0.06 0.53)
$\rho_{\zeta\epsilon}$	-0.20	0.55	0.05	-0.26	(-0.98 0.82)	0.23	0.53	0.04	0.31	(-0.89 0.98)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.39: Bayesian Estimates: SDQ PR/ PB and # Chronic Conditions (Eq. 1, TP, Age 5)

	SDQ PR					SDQ PB					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
number of health problems	0.78	0.03	0.00	0.78	(0.72 0.84)	-0.63	0.03	0.00	-0.63	(-0.68 -0.57)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.21	0.04	0.00	-0.21	(-0.29 -0.14)	0.07	0.03	0.00	0.07	(0.01 0.14)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.04	0.03	0.00	0.04	(-0.02 0.10)	-0.08	0.03	0.00	-0.08	(-0.13 -0.02)	
=1 if NVQ level 3	0.01	0.04	0.00	0.01	(-0.07 0.08)	-0.02	0.04	0.00	-0.02	(-0.08 0.05)	
=1 if overseas qual. only	0.32	0.10	0.00	0.32	(0.13 0.53)	-0.12	0.11	0.00	-0.12	(-0.34 0.08)	
=1 if none of these	0.22	0.06	0.00	0.23	(0.11 0.33)	-0.01	0.05	0.00	-0.01	(-0.12 0.10)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	0.08	0.05	0.00	0.08	(-0.02 0.18)	0.10	0.05	0.00	0.10	(-0.00 0.19)	
=1 if 25 to 29 years	0.00	0.04	0.00	0.00	(-0.07 0.07)	0.14	0.04	0.00	0.14	(0.07 0.20)	
=1 if 30 to 34 years	-0.01	0.03	0.00	-0.01	(-0.07 0.05)	0.06	0.04	0.00	0.06	(-0.02 0.14)	
<i>Child demography</i>											
=1 if female	-0.09	0.02	0.00	-0.09	(-0.13 -0.03)	0.26	0.02	0.00	0.26	(0.22 0.30)	
age (years)	-0.08	0.04	0.00	-0.08	(-0.16 0.01)	0.22	0.05	0.00	0.22	(0.12 0.30)	
=1 if ethnicity is non-white	0.18	0.06	0.00	0.18	(0.08 0.30)	0.02	0.06	0.00	0.02	(-0.08 0.14)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.05	0.06	0.00	0.05	(-0.08 0.17)	0.06	0.05	0.00	0.06	(-0.05 0.17)	
<i>Size of household</i>											
log of hh size incl. cm	-0.03	0.07	0.00	-0.03	(-0.16 0.11)	-0.09	0.07	0.00	-0.08	(-0.23 0.04)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.17	0.03	0.00	0.17	(0.12 0.23)	0.05	0.03	0.00	0.06	(0.00 0.10)	
=1 if two or more older siblings	0.08	0.04	0.00	0.08	(-0.01 0.15)	-0.04	0.04	0.00	-0.04	(-0.13 0.03)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	-0.12	0.10	0.00	-0.12	(-0.31 0.08)	0.05	0.10	0.00	0.05	(-0.15 0.23)	
<i>Country where interview took place</i>											
=1 if wales	-0.11	0.11	0.00	-0.12	(-0.32 0.11)	0.03	0.11	0.00	0.03	(-0.18 0.25)	
=1 if nireland	-0.09	0.26	0.01	-0.08	(-0.63 0.40)	0.24	0.25	0.00	0.24	(-0.27 0.73)	
=1 if scotland	0.12	0.14	0.00	0.11	(-0.14 0.39)	-0.10	0.15	0.00	-0.10	(-0.40 0.18)	
Time and Care											
<i>Time mother spents with child</i>											
=1 if at least just enough	-0.12	0.02	0.00	-0.12	(-0.16 -0.07)	0.04	0.02	0.00	0.04	(-0.01 0.09)	
<i>Childcare</i>											
=1 if formal childcare	-0.02	0.06	0.00	-0.02	(-0.12 0.09)	-0.01	0.05	0.00	-0.01	(-0.13 0.09)	
=1 if informal/ other childcare	0.02	0.05	0.00	0.02	(-0.07 0.11)	-0.04	0.04	0.00	-0.04	(-0.13 0.05)	
=1 if grandparent care	0.02	0.03	0.00	0.02	(-0.04 0.07)	0.02	0.03	0.00	0.02	(-0.03 0.07)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.05	0.02	0.00	-0.05	(-0.09 0.00)	0.01	0.03	0.00	0.01	(-0.04 0.07)	
=1 if working full-time	-0.05	0.05	0.00	-0.05	(-0.16 0.06)	0.06	0.05	0.00	0.06	(-0.04 0.17)	
<i>How long mother breastfed child</i>											

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Table A.3.39 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	-0.03	0.03	0.00	-0.03	(-0.09 0.03)	0.06	0.03	0.00	0.06	(0.00 0.12)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.32	0.10	0.00	0.33	(0.11 0.50)	-0.30	0.10	0.00	-0.30	(-0.49 -0.11)
=1 if mother tells child off	0.04	0.02	0.00	0.04	(-0.00 0.09)	-0.31	0.02	0.00	-0.31	(-0.36 -0.27)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.21	0.04	0.00	-0.21	(-0.28 -0.12)	0.07	0.05	0.00	0.08	(-0.03 0.18)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.07	0.04	0.00	0.07	(0.00 0.15)	-0.10	0.03	0.00	-0.10	(-0.17 -0.03)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.14	0.06	0.00	-0.14	(-0.26 -0.03)	0.12	0.06	0.00	0.12	(0.01 0.23)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.09	0.03	0.00	0.09	(0.03 0.14)	0.07	0.03	0.00	0.07	(0.02 0.12)
<i>Maternal mental health</i>										
=1 if high distress	0.33	0.07	0.00	0.33	(0.17 0.46)	-0.32	0.07	0.00	-0.32	(-0.46 -0.18)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.00	0.03	0.00	0.01	(-0.06 0.06)	0.02	0.03	0.00	0.01	(-0.04 0.08)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.00	0.03	0.00	-0.01	(-0.07 0.06)	-0.03	0.03	0.00	-0.03	(-0.08 0.03)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.08	0.05	0.00	0.08	(-0.02 0.17)	-0.10	0.05	0.00	-0.11	(-0.20 0.01)
=1 if rented (housing association or private)/ other	-0.04	0.04	0.00	-0.04	(-0.11 0.05)	0.02	0.05	0.00	0.02	(-0.08 0.11)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.05	0.07	0.00	-0.05	(-0.18 0.09)	0.10	0.07	0.00	0.10	(-0.04 0.23)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.11	0.05	0.00	0.11	(0.01 0.22)	-0.14	0.05	0.00	-0.14	(-0.24 -0.05)
=1 if managerial/ professional occupation	-0.06	0.03	0.00	-0.06	(-0.12 0.01)	0.05	0.03	0.00	0.05	(-0.01 0.11)
=1 if technical, semi-routine or routine occupation	0.02	0.03	0.00	0.02	(-0.04 0.07)	0.02	0.03	0.00	0.02	(-0.04 0.07)
=1 if can't remember or father died	-0.01	0.06	0.00	-0.02	(-0.13 0.11)	0.00	0.06	0.00	-0.00	(-0.10 0.12)
constant	2.05	0.33	0.01	2.06	(1.40 2.69)	-1.73	0.34	0.01	-1.73	(-2.40 -1.03)
σ_ϵ	0.48	0.02	0.00	0.47	(0.45 0.52)	0.56	0.03	0.00	0.55	(0.51 0.62)
σ_ζ	0.88	0.01	0.00	0.88	(0.85 0.90)	0.83	0.02	0.00	0.84	(0.78 0.88)
$\rho_{\zeta\xi}$	-1.00	0.00	0.00	-1.00	(-1.00 -0.99)	0.99	0.01	0.00	1.00	(0.98 1.00)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.40: Bayesian Estimates: SDQ PR/ PB and # Chronic Conditions (Eq. 2, LP, Age 5)

	SDQ PR					SDQ PB					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.11	0.17	0.01	-0.11	(-0.46 0.23)	-0.14	0.18	0.01	-0.14	(-0.51 0.20)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	-0.03	0.21	0.00	-0.03	(-0.44 0.37)	-0.03	0.21	0.00	-0.03	(-0.43 0.39)	
=1 if NVQ level 3	0.08	0.24	0.00	0.08	(-0.39 0.55)	0.07	0.24	0.00	0.08	(-0.40 0.53)	
=1 if overseas qual. only	-0.50	0.50	0.01	-0.48	(-1.54 0.45)	-0.49	0.51	0.01	-0.47	(-1.51 0.47)	
=1 if none of these	-0.19	0.28	0.00	-0.19	(-0.74 0.34)	-0.20	0.28	0.00	-0.19	(-0.75 0.34)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	-0.01	0.27	0.00	-0.01	(-0.53 0.52)	-0.02	0.27	0.00	-0.02	(-0.55 0.51)	
=1 if 25 to 29 years	-0.04	0.25	0.00	-0.04	(-0.53 0.45)	-0.05	0.25	0.00	-0.05	(-0.53 0.45)	
=1 if 30 to 34 years	-0.04	0.26	0.00	-0.04	(-0.54 0.44)	-0.05	0.26	0.00	-0.05	(-0.56 0.47)	
<i>Child demography</i>											
=1 if female	-0.40	0.15	0.00	-0.40	(-0.68 -0.11)	-0.40	0.15	0.00	-0.40	(-0.68 -0.11)	
age (years)	-0.33	0.29	0.01	-0.34	(-0.89 0.25)	-0.30	0.30	0.02	-0.30	(-0.90 0.29)	
=1 if ethnicity is non-white	0.18	0.25	0.00	0.18	(-0.33 0.66)	0.18	0.25	0.00	0.18	(-0.32 0.67)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.15	0.26	0.00	0.15	(-0.36 0.64)	0.14	0.25	0.00	0.15	(-0.37 0.64)	
<i>Size of household</i>											
log of hh size incl. cm	-0.25	0.28	0.01	-0.24	(-0.78 0.30)	-0.23	0.28	0.01	-0.23	(-0.77 0.31)	
<i>Number of older siblings</i>											
=1 if no older siblings	-0.57	0.19	0.00	-0.57	(-0.94 -0.21)	-0.57	0.19	0.00	-0.57	(-0.93 -0.21)	
=1 if two or more older siblings	-0.08	0.22	0.00	-0.08	(-0.51 0.35)	-0.09	0.22	0.00	-0.09	(-0.52 0.34)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	-0.28	0.45	0.01	-0.29	(-1.14 0.64)	-0.28	0.46	0.01	-0.29	(-1.14 0.66)	
<i>Country where interview took place</i>											
=1 if wales	-0.04	0.55	0.01	-0.04	(-1.11 1.04)	-0.06	0.55	0.01	-0.05	(-1.13 1.02)	
=1 if nireland	-0.35	0.61	0.01	-0.35	(-1.56 0.84)	-0.35	0.60	0.01	-0.34	(-1.54 0.82)	
=1 if scotland	-0.05	0.56	0.01	-0.05	(-1.14 1.03)	-0.07	0.56	0.01	-0.07	(-1.16 1.02)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.19	0.19	0.00	-0.19	(-0.56 0.18)	-0.20	0.19	0.00	-0.20	(-0.56 0.17)	
<i>Childcare</i>											
=1 if formal childcare	0.21	0.20	0.00	0.21	(-0.17 0.60)	0.22	0.20	0.00	0.23	(-0.18 0.61)	
=1 if informal/ other childcare	0.13	0.33	0.00	0.14	(-0.55 0.77)	0.15	0.33	0.00	0.16	(-0.52 0.78)	
=1 if grandparent care	0.04	0.19	0.00	0.05	(-0.34 0.42)	0.04	0.20	0.00	0.05	(-0.34 0.42)	
<i>Maternal employment (t - 1)</i>											
=1 if working part-time	0.16	0.18	0.00	0.16	(-0.19 0.51)	0.17	0.18	0.00	0.17	(-0.17 0.52)	
=1 if working full-time	-0.24	0.43	0.00	-0.23	(-1.08 0.58)	-0.24	0.43	0.00	-0.22	(-1.12 0.57)	
<i>How long mother breastfed child</i>											
=1 if at least 6 months	-0.60	0.27	0.00	-0.60	(-1.14 -0.08)	-0.60	0.27	0.00	-0.60	(-1.14 -0.09)	
<i>If child is naughty...</i>											

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Table A.3.40 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.13	0.24	0.00	-0.13	(-0.61 0.33)	-0.11	0.24	0.00	-0.11	(-0.60 0.35)
=1 if mother tells child off	-0.10	0.19	0.00	-0.10	(-0.48 0.29)	-0.09	0.19	0.00	-0.09	(-0.47 0.30)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	0.15	0.18	0.00	0.15	(-0.20 0.51)	0.15	0.18	0.00	0.15	(-0.21 0.51)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.19	0.18	0.00	0.19	(-0.17 0.53)	0.18	0.18	0.00	0.18	(-0.17 0.53)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	0.33	0.28	0.00	0.32	(-0.20 0.89)	0.33	0.28	0.00	0.32	(-0.21 0.90)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.70	0.15	0.00	0.70	(0.41 0.99)	0.70	0.15	0.00	0.70	(0.41 1.00)
<i>Maternal mental health</i>										
=1 if high distress	0.13	0.27	0.00	0.14	(-0.40 0.64)	0.13	0.26	0.00	0.14	(-0.41 0.63)
<i>Does mother currently smoke</i>										
=1 if currently smokes	-0.05	0.15	0.00	-0.05	(-0.35 0.25)	-0.05	0.15	0.00	-0.04	(-0.35 0.25)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	0.01	0.23	0.00	0.01	(-0.43 0.45)	0.01	0.23	0.00	0.01	(-0.44 0.45)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.29	0.22	0.00	0.29	(-0.14 0.72)	0.29	0.22	0.00	0.29	(-0.15 0.72)
=1 if rented (housing association or private)/ other	0.19	0.21	0.00	0.19	(-0.21 0.60)	0.18	0.21	0.00	0.18	(-0.22 0.59)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	0.10	0.30	0.00	0.09	(-0.47 0.71)	0.11	0.30	0.01	0.11	(-0.48 0.72)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.30	0.25	0.00	0.31	(-0.18 0.80)	0.29	0.25	0.00	0.29	(-0.19 0.77)
=1 if managerial/ professional occupation	0.25	0.24	0.00	0.25	(-0.24 0.71)	0.24	0.24	0.00	0.24	(-0.24 0.70)
=1 if technical, semi-routine or routine occupation	0.33	0.18	0.00	0.33	(-0.03 0.69)	0.33	0.18	0.00	0.33	(-0.03 0.69)
=1 if can't remember or father died	0.32	0.26	0.00	0.32	(-0.19 0.81)	0.30	0.26	0.00	0.31	(-0.21 0.80)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	-0.03	0.23	0.00	-0.03	(-0.49 0.42)	-0.03	0.23	0.00	-0.03	(-0.49 0.41)
constant	-0.38	0.88	0.04	-0.37	(-2.13 1.34)	-0.34	0.90	0.04	-0.34	(-2.08 1.45)
α	8.17	6.03	0.30	6.27	(2.36 24.52)	8.38	6.56	0.34	6.59	(2.23 25.99)
$\ln\alpha$	1.90	0.60	0.03	1.84	(0.86 3.20)	1.92	0.62	0.03	1.89	(0.80 3.26)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.41: Bayesian Estimates: SDQ PR/ PB and # Chronic Conditions (Eq. 2, TP, Age 5)

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Standard Background Controls										
<i>Income</i>										
log of permanent family income (weekly, imp.)	0.02	0.09	0.01	0.02	(-0.15 0.19)	-0.04	0.08	0.00	-0.04	(-0.20 0.13)
<i>Maternal education</i>										
=1 if NVQ level 1 or 2	-0.21	0.08	0.00	-0.21	(-0.37 -0.05)	-0.20	0.08	0.00	-0.20	(-0.36 -0.04)
=1 if NVQ level 3	-0.05	0.10	0.00	-0.04	(-0.23 0.14)	-0.05	0.09	0.00	-0.05	(-0.23 0.14)
=1 if overseas qual. only	-0.03	0.24	0.00	-0.02	(-0.51 0.42)	0.03	0.25	0.00	0.03	(-0.47 0.50)
=1 if none of these	-0.36	0.15	0.00	-0.36	(-0.67 -0.07)	-0.26	0.16	0.00	-0.26	(-0.57 0.05)
<i>Mother's age at birth</i>										
=1 if less than 25 years	-0.04	0.13	0.00	-0.04	(-0.29 0.21)	0.04	0.12	0.00	0.04	(-0.21 0.28)
=1 if 25 to 29 years	0.09	0.10	0.00	0.09	(-0.11 0.28)	0.14	0.10	0.00	0.13	(-0.05 0.33)
=1 if 30 to 34 years	0.00	0.09	0.00	0.00	(-0.17 0.18)	0.05	0.10	0.00	0.05	(-0.13 0.25)
<i>Child demography</i>										
=1 if female	-0.07	0.06	0.00	-0.07	(-0.20 0.06)	-0.03	0.06	0.00	-0.03	(-0.16 0.09)
age (years)	-0.09	0.16	0.01	-0.09	(-0.40 0.21)	-0.13	0.15	0.01	-0.13	(-0.44 0.16)
=1 if ethnicity is non-white	0.00	0.14	0.00	0.01	(-0.27 0.27)	0.10	0.14	0.00	0.10	(-0.19 0.37)
<i>Child's health endowment</i>										
=1 if birth weight < 2500g	0.36	0.13	0.00	0.36	(0.11 0.61)	0.34	0.13	0.00	0.34	(0.09 0.59)
<i>Size of household</i>										
log of hh size incl. cm	-0.36	0.19	0.01	-0.36	(-0.73 0.02)	-0.30	0.19	0.01	-0.29	(-0.68 0.07)
<i>Number of older siblings</i>										
=1 if no older siblings	-0.26	0.08	0.00	-0.26	(-0.43 -0.10)	-0.18	0.08	0.00	-0.18	(-0.34 -0.02)
=1 if two or more older siblings	-0.13	0.10	0.00	-0.13	(-0.33 0.08)	-0.10	0.11	0.00	-0.10	(-0.32 0.11)
<i>Respondent's relationship to child</i>										
=1 if natural mother of child	-0.23	0.31	0.01	-0.23	(-0.83 0.43)	-0.17	0.32	0.01	-0.17	(-0.76 0.48)
<i>Country where interview took place</i>										
=1 if wales	0.54	0.29	0.01	0.54	(-0.04 1.12)	0.57	0.30	0.01	0.58	(-0.01 1.16)
=1 if nireland	0.02	0.47	0.01	0.02	(-0.88 0.92)	0.14	0.47	0.01	0.14	(-0.77 1.04)
=1 if scotland	-0.48	0.37	0.01	-0.49	(-1.17 0.25)	-0.53	0.37	0.01	-0.53	(-1.25 0.22)
Time and Care										
<i>Time mother spends with child</i>										
=1 if at least just enough	0.02	0.08	0.00	0.02	(-0.14 0.17)	-0.05	0.08	0.00	-0.05	(-0.21 0.10)
<i>Childcare</i>										
=1 if formal childcare	-0.04	0.08	0.00	-0.04	(-0.20 0.12)	0.01	0.08	0.00	0.01	(-0.16 0.17)
=1 if informal/ other childcare	-0.25	0.17	0.00	-0.24	(-0.60 0.08)	-0.19	0.17	0.00	-0.19	(-0.54 0.14)
=1 if grandparent care	0.04	0.09	0.00	0.04	(-0.12 0.21)	0.01	0.09	0.00	0.01	(-0.16 0.19)
<i>Maternal employment (t - 1)</i>										
=1 if working part-time	-0.07	0.07	0.00	-0.07	(-0.21 0.07)	-0.07	0.07	0.00	-0.07	(-0.21 0.07)
=1 if working full-time	-0.04	0.14	0.00	-0.04	(-0.31 0.23)	-0.05	0.14	0.00	-0.05	(-0.33 0.22)
<i>How long mother breastfed child</i>										
=1 if at least 6 months	0.07	0.08	0.00	0.07	(-0.09 0.23)	0.09	0.08	0.00	0.09	(-0.08 0.25)
<i>If child is naughty...</i>										

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Table A.3.41 – continued from previous page

	SDQ PR						SDQ PB					
	mean	sd	se	med	95% CrI	95% CrI	mean	sd	se	med	95% CrI	
=1 if mother smacks child	-0.22	0.11	0.00	-0.22	(-0.44	-0.01)	-0.17	0.11	0.00	-0.17	(-0.40	0.05)
=1 if mother tells child off	0.16	0.09	0.00	0.16	(-0.00	0.34)	0.22	0.09	0.00	0.22	(0.05	0.40)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	-0.01	0.08	0.00	-0.01	(-0.16	0.16)	-0.02	0.08	0.00	-0.02	(-0.19	0.14)
<i>Daily TV/ video consumption</i>												
=1 if more than 3 hours tv/ videos	0.05	0.09	0.00	0.05	(-0.12	0.22)	0.02	0.09	0.00	0.02	(-0.16	0.19)
<i>How often mother reads to the child</i>												
=1 if at least several times a week	-0.02	0.15	0.00	-0.02	(-0.30	0.27)	-0.04	0.15	0.00	-0.04	(-0.33	0.27)
Health and Health Related Behaviour												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.38	0.07	0.00	0.38	(0.25	0.51)	0.42	0.07	0.00	0.42	(0.28	0.55)
<i>Maternal mental health</i>												
=1 if high distress	0.19	0.18	0.00	0.19	(-0.19	0.54)	0.09	0.19	0.00	0.10	(-0.28	0.45)
<i>Does mother currently smoke</i>												
=1 if currently smokes	0.16	0.08	0.00	0.16	(0.00	0.30)	0.16	0.08	0.00	0.16	(0.00	0.31)
<i>How often mother drinks alcohol</i>												
=1 if at least 3 times a week	-0.13	0.08	0.00	-0.12	(-0.30	0.04)	-0.12	0.09	0.00	-0.12	(-0.29	0.04)
Other												
<i>Housing tenure</i>												
=1 if council rented	0.13	0.12	0.00	0.13	(-0.10	0.35)	0.06	0.12	0.00	0.05	(-0.18	0.30)
=1 if rented (housing association or private)/ other	0.04	0.11	0.00	0.04	(-0.17	0.24)	-0.03	0.11	0.00	-0.03	(-0.25	0.18)
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	-0.06	0.20	0.00	-0.07	(-0.44	0.34)	-0.08	0.20	0.00	-0.08	(-0.47	0.31)
<i>Maternal grandfathers' SES when respondent was aged 14</i>												
=1 if was not working	-0.07	0.14	0.00	-0.07	(-0.35	0.20)	-0.08	0.14	0.00	-0.08	(-0.35	0.19)
=1 if managerial/ professional occupation	-0.05	0.09	0.00	-0.05	(-0.23	0.12)	-0.06	0.09	0.00	-0.06	(-0.24	0.11)
=1 if technical, semi-routine or routine occupation	0.01	0.08	0.00	0.01	(-0.14	0.17)	0.05	0.08	0.00	0.05	(-0.10	0.20)
=1 if can't remember or father died	-0.01	0.15	0.00	-0.01	(-0.30	0.28)	0.00	0.15	0.00	0.00	(-0.29	0.29)
<i>Problems with damp on the wall</i>												
=1 if at least some problems	0.11	0.13	0.00	0.11	(-0.14	0.36)	0.25	0.13	0.00	0.25	(-0.00	0.51)
constant	-1.19	0.74	0.06	-1.16	(-2.70	0.24)	-0.95	0.68	0.05	-0.93	(-2.26	0.33)
α	41.01	19.78	1.66	36.26	(15.97	92.71)	32.21	17.48	1.59	28.29	(11.42	74.82)
$\ln\alpha$	3.61	0.45	0.04	3.59	(2.77	4.53)	3.35	0.48	0.04	3.34	(2.44	4.32)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.42: Bayesian Estimates: SDQ ES/ CP and # Hospital Admissions (Eq. 1, LP, Age 5)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
number of hospital admissions	0.07	0.04	0.00	0.07	(-0.01 0.15)	0.06	0.06	0.00	0.05	(-0.05 0.17)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.09	0.07	0.00	-0.09	(-0.24 0.06)	-0.07	0.07	0.00	-0.07	(-0.21 0.07)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.07	0.07	0.00	0.07	(-0.07 0.22)	0.17	0.07	0.00	0.17	(0.04 0.31)	
=1 if NVQ level 3	0.08	0.09	0.00	0.08	(-0.09 0.24)	-0.07	0.08	0.00	-0.07	(-0.23 0.08)	
=1 if overseas qual. only	0.04	0.17	0.00	0.04	(-0.30 0.38)	0.24	0.16	0.00	0.24	(-0.08 0.56)	
=1 if none of these	0.22	0.10	0.00	0.22	(0.02 0.42)	0.32	0.10	0.00	0.32	(0.12 0.51)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	-0.12	0.10	0.00	-0.13	(-0.33 0.08)	0.22	0.10	0.00	0.22	(0.03 0.41)	
=1 if 25 to 29 years	-0.01	0.10	0.00	-0.01	(-0.19 0.19)	0.23	0.09	0.00	0.23	(0.06 0.41)	
=1 if 30 to 34 years	-0.05	0.10	0.00	-0.05	(-0.24 0.14)	0.06	0.09	0.00	0.06	(-0.11 0.24)	
<i>Child demography</i>											
=1 if female	0.21	0.05	0.00	0.21	(0.11 0.32)	-0.11	0.05	0.00	-0.11	(-0.21 -0.02)	
age (years)	0.01	0.10	0.00	0.01	(-0.18 0.20)	-0.06	0.09	0.00	-0.06	(-0.24 0.12)	
=1 if ethnicity is non-white	0.04	0.10	0.00	0.04	(-0.16 0.23)	0.05	0.09	0.00	0.05	(-0.13 0.23)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.01	0.10	0.00	0.01	(-0.19 0.20)	-0.07	0.09	0.00	-0.07	(-0.25 0.11)	
<i>Size of household</i>											
log of hh size incl. cm	0.15	0.10	0.00	0.15	(-0.04 0.35)	0.19	0.09	0.00	0.19	(0.01 0.38)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.11	0.07	0.00	0.11	(-0.03 0.24)	-0.08	0.06	0.00	-0.08	(-0.21 0.04)	
=1 if two or more older siblings	-0.03	0.09	0.00	-0.03	(-0.20 0.13)	-0.04	0.08	0.00	-0.04	(-0.19 0.12)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.02	0.19	0.00	0.02	(-0.34 0.38)	0.25	0.18	0.00	0.25	(-0.10 0.59)	
<i>Country where interview took place</i>											
=1 if wales	0.05	0.31	0.00	0.05	(-0.56 0.65)	0.11	0.29	0.00	0.11	(-0.44 0.67)	
=1 if nireland	-0.05	0.44	0.00	-0.05	(-0.93 0.83)	0.65	0.43	0.00	0.65	(-0.19 1.47)	
=1 if scotland	0.06	0.35	0.00	0.06	(-0.62 0.74)	-0.02	0.34	0.00	-0.01	(-0.69 0.63)	
Time and Care											
<i>Time mother spents with child</i>											
=1 if at least just enough	-0.11	0.06	0.00	-0.11	(-0.23 0.00)	-0.01	0.06	0.00	-0.01	(-0.12 0.10)	
<i>Childcare</i>											
=1 if formal childcare	-0.09	0.12	0.00	-0.09	(-0.33 0.16)	0.29	0.11	0.00	0.29	(0.07 0.51)	
=1 if informal/ other childcare	-0.09	0.09	0.00	-0.09	(-0.27 0.09)	0.14	0.09	0.00	0.14	(-0.03 0.31)	
=1 if grandparent care	0.11	0.07	0.00	0.11	(-0.02 0.24)	0.02	0.06	0.00	0.01	(-0.10 0.13)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.08	0.07	0.00	-0.08	(-0.21 0.05)	0.02	0.06	0.00	0.02	(-0.10 0.14)	
=1 if working full-time	-0.05	0.14	0.00	-0.05	(-0.33 0.23)	-0.01	0.13	0.00	-0.01	(-0.27 0.25)	
<i>How long mother breastfed child</i>											

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Table A.3.42 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.14	0.09	0.00	0.14	(-0.04 0.31)	-0.05	0.08	0.00	-0.05	(-0.20 0.11)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.04	0.20	0.00	0.04	(-0.36 0.44)	0.98	0.19	0.00	0.98	(0.61 1.35)
=1 if mother tells child off	0.19	0.05	0.00	0.19	(0.08 0.29)	0.45	0.05	0.00	0.45	(0.36 0.55)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.08	0.08	0.00	-0.08	(-0.24 0.08)	-0.32	0.07	0.00	-0.32	(-0.47 -0.18)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.14	0.07	0.00	0.14	(0.01 0.28)	0.11	0.06	0.00	0.11	(-0.02 0.24)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.16	0.12	0.00	-0.16	(-0.38 0.07)	-0.32	0.11	0.00	-0.32	(-0.54 -0.11)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.15	0.06	0.00	0.16	(0.04 0.27)	0.17	0.06	0.00	0.17	(0.06 0.28)
<i>Maternal mental health</i>										
=1 if high distress	0.71	0.11	0.00	0.71	(0.49 0.93)	0.52	0.10	0.00	0.52	(0.32 0.72)
<i>Does mother currently smoke</i>										
=1 if currently smokes	-0.01	0.05	0.00	-0.01	(-0.11 0.10)	0.16	0.05	0.00	0.16	(0.06 0.25)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.03	0.08	0.00	-0.03	(-0.19 0.13)	0.06	0.07	0.00	0.06	(-0.09 0.20)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.14	0.09	0.00	0.14	(-0.03 0.31)	0.13	0.08	0.00	0.13	(-0.03 0.28)
=1 if rented (housing association or private)/ other	0.05	0.08	0.00	0.05	(-0.10 0.20)	0.16	0.07	0.00	0.16	(0.01 0.30)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.16	0.11	0.00	-0.16	(-0.38 0.06)	-0.17	0.11	0.00	-0.17	(-0.38 0.03)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.20	0.09	0.00	0.21	(0.02 0.39)	0.15	0.09	0.00	0.15	(-0.02 0.32)
=1 if managerial/ professional occupation	0.00	0.09	0.00	0.00	(-0.17 0.17)	0.07	0.08	0.00	0.07	(-0.09 0.22)
=1 if technical, semi-routine or routine occupation	0.03	0.07	0.00	0.04	(-0.10 0.16)	0.01	0.06	0.00	0.01	(-0.11 0.14)
=1 if can't remember or father died	0.07	0.10	0.00	0.07	(-0.12 0.26)	0.07	0.09	0.00	0.07	(-0.11 0.25)
constant	0.19	0.60	0.01	0.20	(-0.97 1.38)	0.20	0.58	0.01	0.20	(-0.95 1.36)
σ_ϵ	0.95	0.03	0.00	0.95	(0.89 1.00)	0.86	0.03	0.00	0.87	(0.78 0.91)
σ_ζ	0.14	0.10	0.01	0.12	(0.02 0.37)	0.23	0.11	0.01	0.21	(0.06 0.45)
$\rho_{\zeta\epsilon}$	-0.19	0.49	0.04	-0.24	(-0.94 0.80)	-0.47	0.48	0.04	-0.61	(-0.99 0.76)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.43: Bayesian Estimates: SDQ ES/ CP and # Hospital Admissions (Eq. 1, TP, Age 5)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
number of hospital admissions	0.05	0.02	0.00	0.05	(0.00 0.09)	0.02	0.03	0.00	0.02	(-0.04 0.09)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.15	0.03	0.00	-0.15	(-0.21 -0.08)	-0.19	0.03	0.00	-0.19	(-0.25 -0.13)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	-0.02	0.03	0.00	-0.02	(-0.08 0.04)	0.07	0.03	0.00	0.07	(0.02 0.13)	
=1 if NVQ level 3	-0.07	0.03	0.00	-0.07	(-0.14 -0.00)	0.01	0.03	0.00	0.01	(-0.05 0.07)	
=1 if overseas qual. only	0.13	0.10	0.00	0.13	(-0.06 0.33)	0.30	0.09	0.00	0.30	(0.12 0.48)	
=1 if none of these	0.11	0.06	0.00	0.11	(-0.00 0.22)	0.20	0.05	0.00	0.20	(0.09 0.30)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	0.06	0.05	0.00	0.06	(-0.03 0.15)	0.19	0.04	0.00	0.19	(0.11 0.28)	
=1 if 25 to 29 years	0.05	0.04	0.00	0.05	(-0.02 0.13)	0.00	0.03	0.00	0.00	(-0.06 0.07)	
=1 if 30 to 34 years	0.04	0.03	0.00	0.04	(-0.02 0.11)	0.01	0.03	0.00	0.01	(-0.05 0.07)	
<i>Child demography</i>											
=1 if female	0.06	0.02	0.00	0.06	(0.01 0.10)	-0.14	0.02	0.00	-0.14	(-0.18 -0.10)	
age (years)	-0.03	0.05	0.00	-0.03	(-0.12 0.06)	-0.13	0.04	0.00	-0.13	(-0.22 -0.05)	
=1 if ethnicity is non-white	0.06	0.05	0.00	0.06	(-0.04 0.17)	0.05	0.05	0.00	0.05	(-0.04 0.15)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.16	0.05	0.00	0.16	(0.05 0.27)	0.12	0.05	0.00	0.12	(0.02 0.22)	
<i>Size of household</i>											
log of hh size incl. cm	0.17	0.07	0.00	0.17	(0.02 0.31)	0.11	0.07	0.00	0.11	(-0.03 0.24)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.11	0.03	0.00	0.11	(0.05 0.16)	-0.20	0.03	0.00	-0.20	(-0.25 -0.15)	
=1 if two or more older siblings	-0.09	0.04	0.00	-0.09	(-0.16 -0.02)	-0.09	0.04	0.00	-0.09	(-0.16 -0.02)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.08	0.10	0.00	0.08	(-0.12 0.28)	0.06	0.10	0.00	0.06	(-0.13 0.25)	
<i>Country where interview took place</i>											
=1 if wales	0.06	0.12	0.00	0.06	(-0.17 0.29)	0.00	0.11	0.00	0.01	(-0.22 0.22)	
=1 if nireland	0.21	0.26	0.00	0.21	(-0.30 0.73)	-0.10	0.25	0.00	-0.10	(-0.59 0.38)	
=1 if scotland	0.14	0.15	0.00	0.14	(-0.15 0.43)	0.08	0.14	0.00	0.09	(-0.18 0.35)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.08	0.03	0.00	-0.08	(-0.13 -0.03)	-0.05	0.02	0.00	-0.05	(-0.10 -0.00)	
<i>Childcare</i>											
=1 if formal childcare	-0.04	0.05	0.00	-0.04	(-0.15 0.06)	-0.03	0.05	0.00	-0.03	(-0.13 0.06)	
=1 if informal/ other childcare	0.06	0.05	0.00	0.06	(-0.03 0.15)	0.00	0.04	0.00	0.00	(-0.08 0.08)	
=1 if grandparent care	0.01	0.03	0.00	0.01	(-0.04 0.07)	-0.01	0.03	0.00	-0.01	(-0.07 0.04)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.09	0.03	0.00	-0.09	(-0.15 -0.04)	0.03	0.02	0.00	0.03	(-0.02 0.08)	
=1 if working full-time	-0.15	0.06	0.00	-0.16	(-0.26 -0.05)	0.04	0.05	0.00	0.04	(-0.06 0.14)	
<i>How long mother breastfed child</i>											

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Table A.3.43 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.00	0.03	0.00	0.00	(-0.06 0.06)	-0.11	0.03	0.00	-0.11	(-0.17 -0.06)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.22	0.10	0.00	0.22	(0.02 0.41)	0.74	0.09	0.00	0.74	(0.56 0.92)
=1 if mother tells child off	0.14	0.02	0.00	0.14	(0.09 0.19)	0.52	0.02	0.00	0.52	(0.48 0.57)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.17	0.04	0.00	-0.17	(-0.26 -0.09)	-0.29	0.04	0.00	-0.29	(-0.37 -0.21)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.09	0.03	0.00	0.09	(0.02 0.15)	0.11	0.03	0.00	0.11	(0.04 0.17)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.16	0.06	0.00	-0.16	(-0.27 -0.05)	-0.23	0.05	0.00	-0.23	(-0.33 -0.12)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.12	0.03	0.00	0.12	(0.07 0.18)	0.05	0.03	0.00	0.05	(0.00 0.10)
<i>Maternal mental health</i>										
=1 if high distress	0.54	0.08	0.00	0.54	(0.38 0.70)	0.54	0.07	0.00	0.54	(0.40 0.69)
<i>Does mother currently smoke</i>										
=1 if currently smokes	-0.01	0.03	0.00	-0.01	(-0.07 0.05)	0.14	0.03	0.00	0.14	(0.08 0.20)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.02	0.03	0.00	-0.02	(-0.08 0.03)	0.05	0.03	0.00	0.05	(-0.00 0.10)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.09	0.05	0.00	0.09	(-0.01 0.18)	0.22	0.05	0.00	0.22	(0.13 0.31)
=1 if rented (housing association or private)/ other	-0.06	0.04	0.00	-0.06	(-0.14 0.02)	0.08	0.04	0.00	0.08	(0.01 0.16)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.11	0.06	0.00	-0.12	(-0.24 0.01)	0.03	0.06	0.00	0.03	(-0.09 0.14)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.04	0.05	0.00	0.04	(-0.06 0.14)	0.10	0.05	0.00	0.10	(0.00 0.19)
=1 if managerial/ professional occupation	0.03	0.03	0.00	0.03	(-0.03 0.10)	-0.02	0.03	0.00	-0.02	(-0.08 0.04)
=1 if technical, semi-routine or routine occupation	0.01	0.03	0.00	0.01	(-0.04 0.07)	0.02	0.03	0.00	0.02	(-0.03 0.07)
=1 if can't remember or father died	-0.02	0.05	0.00	-0.02	(-0.12 0.09)	0.09	0.05	0.00	0.09	(-0.01 0.19)
constant	1.02	0.35	0.00	1.03	(0.34 1.72)	1.79	0.33	0.00	1.79	(1.14 2.43)
σ_ϵ	0.97	0.02	0.00	0.97	(0.92 0.99)	0.88	0.02	0.00	0.89	(0.82 0.91)
σ_ζ	0.07	0.08	0.03	0.04	(0.02 0.32)	0.20	0.08	0.01	0.19	(0.08 0.40)
$\rho_{\zeta\xi}$	0.03	0.46	0.08	0.04	(-0.76 0.83)	-0.01	0.31	0.03	-0.00	(-0.64 0.62)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.44: Bayesian Estimates: SDQ ES/ CP and # Hospital Admissions (Eq. 2, LP, Age 5)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	0.02	0.19	0.01	0.02	(-0.37 0.38)	0.01	0.18	0.01	0.02	(-0.33 0.36)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	-0.31	0.20	0.00	-0.32	(-0.70 0.08)	-0.31	0.20	0.00	-0.31	(-0.70 0.08)	
=1 if NVQ level 3	-0.22	0.23	0.00	-0.22	(-0.67 0.24)	-0.22	0.23	0.00	-0.22	(-0.67 0.25)	
=1 if overseas qual. only	-0.52	0.47	0.00	-0.51	(-1.47 0.36)	-0.53	0.48	0.00	-0.52	(-1.47 0.37)	
=1 if none of these	-0.67	0.28	0.00	-0.67	(-1.21 -0.13)	-0.67	0.28	0.00	-0.67	(-1.22 -0.13)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	0.27	0.28	0.00	0.27	(-0.27 0.81)	0.27	0.28	0.00	0.27	(-0.27 0.82)	
=1 if 25 to 29 years	0.26	0.26	0.00	0.25	(-0.24 0.77)	0.26	0.26	0.00	0.26	(-0.24 0.76)	
=1 if 30 to 34 years	0.24	0.26	0.00	0.23	(-0.28 0.76)	0.25	0.27	0.00	0.25	(-0.28 0.77)	
<i>Child demography</i>											
=1 if female	-0.41	0.14	0.00	-0.40	(-0.69 -0.13)	-0.41	0.14	0.00	-0.40	(-0.69 -0.13)	
age (years)	-0.04	0.28	0.02	-0.04	(-0.59 0.50)	-0.03	0.28	0.02	-0.03	(-0.57 0.52)	
=1 if ethnicity is non-white	-0.41	0.28	0.00	-0.41	(-0.97 0.12)	-0.40	0.28	0.00	-0.40	(-0.95 0.13)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.41	0.24	0.00	0.41	(-0.06 0.88)	0.42	0.24	0.00	0.42	(-0.04 0.89)	
<i>Size of household</i>											
log of hh size incl. cm	-0.22	0.25	0.01	-0.22	(-0.71 0.28)	-0.25	0.25	0.01	-0.25	(-0.76 0.24)	
<i>Number of older siblings</i>											
=1 if no older siblings	-0.21	0.18	0.00	-0.22	(-0.57 0.14)	-0.22	0.18	0.00	-0.22	(-0.58 0.13)	
=1 if two or more older siblings	-0.12	0.23	0.00	-0.12	(-0.56 0.32)	-0.11	0.22	0.00	-0.11	(-0.55 0.33)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.04	0.53	0.02	0.02	(-0.94 1.12)	0.01	0.52	0.02	0.00	(-0.98 1.07)	
<i>Country where interview took place</i>											
=1 if wales	-0.34	0.52	0.01	-0.34	(-1.33 0.66)	-0.32	0.53	0.01	-0.32	(-1.36 0.71)	
=1 if nireland	-0.16	0.60	0.01	-0.16	(-1.33 1.02)	-0.13	0.61	0.01	-0.13	(-1.33 1.06)	
=1 if scotland	-0.49	0.56	0.01	-0.49	(-1.60 0.60)	-0.49	0.57	0.01	-0.49	(-1.60 0.62)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.09	0.19	0.00	-0.09	(-0.46 0.27)	-0.09	0.18	0.00	-0.09	(-0.45 0.27)	
<i>Childcare</i>											
=1 if formal childcare	0.04	0.20	0.00	0.04	(-0.35 0.43)	0.05	0.20	0.00	0.05	(-0.34 0.44)	
=1 if informal/ other childcare	-0.13	0.34	0.00	-0.12	(-0.79 0.53)	-0.11	0.33	0.00	-0.10	(-0.77 0.53)	
=1 if grandparent care	-0.12	0.19	0.00	-0.12	(-0.49 0.25)	-0.11	0.19	0.00	-0.11	(-0.48 0.26)	
<i>Maternal employment (t - 1)</i>											
=1 if working part-time	0.02	0.18	0.00	0.01	(-0.34 0.37)	0.02	0.18	0.00	0.02	(-0.35 0.36)	
=1 if working full-time	-0.07	0.38	0.00	-0.07	(-0.82 0.66)	-0.07	0.37	0.00	-0.07	(-0.81 0.65)	
<i>How long mother breastfed child</i>											
=1 if at least 6 months	-0.28	0.25	0.00	-0.28	(-0.80 0.21)	-0.28	0.25	0.00	-0.28	(-0.77 0.20)	
<i>If child is naughty...</i>											

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Table A.3.44 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.02	0.23	0.00	-0.01	(-0.47 0.43)	0.01	0.23	0.00	0.01	(-0.46 0.46)
=1 if mother tells child off	-0.30	0.19	0.00	-0.30	(-0.67 0.07)	-0.28	0.19	0.00	-0.28	(-0.65 0.08)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.43	0.17	0.00	-0.43	(-0.75 -0.10)	-0.45	0.17	0.00	-0.45	(-0.78 -0.12)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	-0.25	0.19	0.00	-0.25	(-0.62 0.11)	-0.26	0.19	0.00	-0.25	(-0.62 0.11)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	0.00	0.26	0.00	-0.00	(-0.49 0.52)	-0.02	0.26	0.00	-0.02	(-0.52 0.51)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.22	0.16	0.00	0.22	(-0.10 0.53)	0.22	0.16	0.00	0.22	(-0.10 0.53)
<i>Maternal mental health</i>										
=1 if high distress	0.12	0.27	0.00	0.12	(-0.40 0.64)	0.16	0.27	0.00	0.16	(-0.40 0.69)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.05	0.15	0.00	0.05	(-0.25 0.36)	0.05	0.15	0.00	0.05	(-0.25 0.34)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.33	0.24	0.00	-0.33	(-0.82 0.13)	-0.34	0.24	0.00	-0.34	(-0.82 0.12)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.30	0.22	0.00	0.30	(-0.12 0.72)	0.30	0.21	0.00	0.30	(-0.12 0.72)
=1 if rented (housing association or private)/ other	0.09	0.20	0.00	0.09	(-0.30 0.48)	0.09	0.20	0.00	0.09	(-0.30 0.46)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	0.25	0.32	0.01	0.25	(-0.35 0.89)	0.26	0.30	0.01	0.25	(-0.33 0.86)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.25	0.25	0.00	0.25	(-0.24 0.73)	0.26	0.25	0.00	0.26	(-0.23 0.74)
=1 if managerial/ professional occupation	0.15	0.23	0.00	0.15	(-0.31 0.61)	0.14	0.23	0.00	0.14	(-0.33 0.60)
=1 if technical, semi-routine or routine occupation	0.18	0.18	0.00	0.18	(-0.16 0.52)	0.17	0.18	0.00	0.17	(-0.17 0.52)
=1 if can't remember or father died	0.39	0.25	0.00	0.39	(-0.10 0.87)	0.38	0.25	0.00	0.37	(-0.12 0.86)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	-0.20	0.24	0.00	-0.20	(-0.69 0.27)	-0.19	0.24	0.00	-0.19	(-0.68 0.28)
constant	-0.64	0.89	0.06	-0.65	(-2.39 1.07)	-0.60	0.86	0.05	-0.59	(-2.30 1.05)
α	0.93	0.28	0.01	0.88	(0.55 1.64)	0.94	0.27	0.01	0.89	(0.56 1.59)
$\ln\alpha$	-0.11	0.27	0.01	-0.13	(-0.60 0.49)	-0.10	0.27	0.01	-0.12	(-0.59 0.47)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.45: Bayesian Estimates: SDQ ES/ CP and # Hospital Admissions (Eq. 2, TP, Age 5)

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Standard Background Controls										
<i>Income</i>										
log of permanent family income (weekly, imp.)	-0.09	0.09	0.01	-0.09	(-0.25 0.10)	-0.09	0.09	0.01	-0.09	(-0.26 0.10)
<i>Maternal education</i>										
=1 if NVQ level 1 or 2	-0.01	0.09	0.00	-0.02	(-0.18 0.15)	-0.01	0.09	0.00	-0.01	(-0.18 0.15)
=1 if NVQ level 3	-0.05	0.10	0.00	-0.05	(-0.24 0.13)	-0.05	0.10	0.00	-0.05	(-0.24 0.14)
=1 if overseas qual. only	-0.34	0.30	0.00	-0.33	(-0.92 0.23)	-0.34	0.29	0.00	-0.33	(-0.92 0.21)
=1 if none of these	0.02	0.15	0.00	0.02	(-0.29 0.32)	0.02	0.15	0.00	0.02	(-0.27 0.31)
<i>Mother's age at birth</i>										
=1 if less than 25 years	0.27	0.13	0.00	0.26	(0.02 0.52)	0.26	0.12	0.00	0.26	(0.02 0.51)
=1 if 25 to 29 years	0.12	0.10	0.00	0.12	(-0.09 0.32)	0.12	0.10	0.00	0.12	(-0.08 0.32)
=1 if 30 to 34 years	0.04	0.10	0.00	0.04	(-0.15 0.23)	0.04	0.10	0.00	0.04	(-0.15 0.23)
<i>Child demography</i>										
=1 if female	-0.22	0.07	0.00	-0.22	(-0.35 -0.09)	-0.22	0.06	0.00	-0.22	(-0.35 -0.09)
age (years)	0.27	0.16	0.01	0.27	(-0.02 0.58)	0.27	0.15	0.01	0.27	(-0.03 0.57)
=1 if ethnicity is non-white	0.07	0.16	0.00	0.07	(-0.24 0.37)	0.07	0.15	0.00	0.07	(-0.24 0.37)
<i>Child's health endowment</i>										
=1 if birth weight < 2500g	0.57	0.13	0.00	0.57	(0.32 0.81)	0.57	0.13	0.00	0.57	(0.31 0.82)
<i>Size of household</i>										
log of hh size incl. cm	-0.57	0.19	0.01	-0.57	(-0.93 -0.20)	-0.57	0.20	0.01	-0.57	(-0.94 -0.18)
<i>Number of older siblings</i>										
=1 if no older siblings	-0.07	0.08	0.00	-0.07	(-0.23 0.09)	-0.07	0.08	0.00	-0.07	(-0.23 0.10)
=1 if two or more older siblings	-0.05	0.11	0.00	-0.05	(-0.25 0.17)	-0.05	0.11	0.00	-0.05	(-0.26 0.16)
<i>Respondent's relationship to child</i>										
=1 if natural mother of child	0.57	0.40	0.02	0.56	(-0.17 1.39)	0.58	0.41	0.02	0.57	(-0.18 1.44)
<i>Country where interview took place</i>										
=1 if wales	0.65	0.33	0.01	0.65	(-0.00 1.30)	0.63	0.33	0.01	0.63	(-0.02 1.28)
=1 if nireland	0.09	0.51	0.02	0.10	(-0.91 1.10)	0.06	0.51	0.02	0.05	(-0.95 1.04)
=1 if scotland	0.20	0.40	0.01	0.21	(-0.60 0.98)	0.18	0.40	0.01	0.18	(-0.61 0.97)
Time and Care										
<i>Time mother spends with child</i>										
=1 if at least just enough	-0.06	0.08	0.00	-0.06	(-0.22 0.10)	-0.06	0.08	0.00	-0.06	(-0.22 0.10)
<i>Childcare</i>										
=1 if formal childcare	0.10	0.09	0.00	0.10	(-0.08 0.26)	0.10	0.09	0.00	0.10	(-0.08 0.27)
=1 if informal/ other childcare	0.10	0.16	0.00	0.10	(-0.23 0.41)	0.10	0.16	0.00	0.10	(-0.22 0.41)
=1 if grandparent care	-0.04	0.09	0.00	-0.04	(-0.22 0.14)	-0.04	0.09	0.00	-0.04	(-0.22 0.14)
<i>Maternal employment (t - 1)</i>										
=1 if working part-time	-0.07	0.08	0.00	-0.07	(-0.22 0.08)	-0.07	0.08	0.00	-0.07	(-0.22 0.08)
=1 if working full-time	-0.01	0.14	0.00	-0.01	(-0.29 0.28)	-0.01	0.14	0.00	-0.01	(-0.29 0.27)
<i>How long mother breastfed child</i>										
=1 if at least 6 months	-0.18	0.09	0.00	-0.18	(-0.36 -0.01)	-0.18	0.09	0.00	-0.18	(-0.36 -0.01)
<i>If child is naughty...</i>										

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Table A.3.45 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.02	0.11	0.00	-0.02	(-0.24 0.19)	-0.02	0.11	0.00	-0.02	(-0.24 0.19)
=1 if mother tells child off	0.05	0.09	0.00	0.05	(-0.13 0.23)	0.05	0.09	0.00	0.05	(-0.13 0.22)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	0.04	0.09	0.00	0.04	(-0.13 0.22)	0.04	0.09	0.00	0.04	(-0.14 0.21)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	-0.11	0.10	0.00	-0.11	(-0.30 0.08)	-0.11	0.09	0.00	-0.11	(-0.29 0.08)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.06	0.15	0.00	-0.06	(-0.36 0.24)	-0.06	0.16	0.00	-0.06	(-0.37 0.25)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.37	0.07	0.00	0.37	(0.23 0.52)	0.37	0.08	0.00	0.37	(0.22 0.52)
<i>Maternal mental health</i>										
=1 if high distress	0.34	0.20	0.00	0.34	(-0.05 0.72)	0.34	0.20	0.00	0.35	(-0.06 0.73)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.13	0.08	0.00	0.13	(-0.03 0.29)	0.13	0.08	0.00	0.13	(-0.03 0.28)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.22	0.09	0.00	-0.22	(-0.40 -0.03)	-0.22	0.09	0.00	-0.22	(-0.40 -0.04)
Other										
<i>Housing tenure</i>										
=1 if council rented	-0.07	0.13	0.00	-0.07	(-0.32 0.17)	-0.07	0.13	0.00	-0.07	(-0.32 0.17)
=1 if rented (housing association or private)/ other	-0.08	0.11	0.00	-0.08	(-0.29 0.14)	-0.08	0.11	0.00	-0.08	(-0.30 0.14)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.05	0.21	0.01	-0.05	(-0.45 0.37)	-0.04	0.21	0.01	-0.04	(-0.44 0.37)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	-0.19	0.14	0.00	-0.19	(-0.48 0.08)	-0.19	0.15	0.00	-0.19	(-0.47 0.09)
=1 if managerial/ professional occupation	-0.17	0.10	0.00	-0.17	(-0.36 0.02)	-0.17	0.09	0.00	-0.17	(-0.36 0.01)
=1 if technical, semi-routine or routine occupation	-0.07	0.08	0.00	-0.07	(-0.23 0.08)	-0.07	0.08	0.00	-0.07	(-0.22 0.08)
=1 if can't remember or father died	-0.10	0.15	0.00	-0.10	(-0.39 0.19)	-0.10	0.15	0.00	-0.10	(-0.40 0.19)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	0.25	0.14	0.00	0.25	(-0.01 0.52)	0.26	0.14	0.00	0.26	(-0.01 0.52)
constant	-1.97	0.72	0.07	-1.92	(-3.51 -0.70)	-1.98	0.77	0.08	-1.99	(-3.47 -0.49)
α	1.34	0.24	0.01	1.30	(0.96 1.91)	1.35	0.25	0.01	1.31	(0.96 1.94)
$\ln\alpha$	0.27	0.18	0.01	0.27	(-0.05 0.65)	0.28	0.18	0.01	0.27	(-0.04 0.66)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.46: Bayesian Estimates: SDQ PR/ PB and # Hospital Admissions (Eq. 1, LP, Age 5)

	SDQ PR					SDQ PB					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
number of hospital admissions	0.02	0.05	0.00	0.02	(-0.06 0.13)	0.02	0.05	0.00	0.02	(-0.09 0.11)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.11	0.08	0.00	-0.11	(-0.26 0.04)	-0.08	0.08	0.00	-0.08	(-0.24 0.07)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.21	0.07	0.00	0.21	(0.06 0.35)	-0.13	0.08	0.00	-0.13	(-0.28 0.02)	
=1 if NVQ level 3	0.05	0.09	0.00	0.05	(-0.12 0.21)	0.06	0.09	0.00	0.06	(-0.11 0.23)	
=1 if overseas qual. only	0.06	0.17	0.00	0.05	(-0.29 0.39)	-0.04	0.18	0.00	-0.04	(-0.39 0.31)	
=1 if none of these	0.14	0.10	0.00	0.14	(-0.06 0.34)	-0.24	0.11	0.00	-0.24	(-0.45 -0.03)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	-0.02	0.10	0.00	-0.02	(-0.22 0.19)	-0.18	0.11	0.00	-0.18	(-0.38 0.03)	
=1 if 25 to 29 years	-0.04	0.10	0.00	-0.04	(-0.23 0.15)	-0.01	0.10	0.00	-0.01	(-0.20 0.18)	
=1 if 30 to 34 years	-0.02	0.10	0.00	-0.02	(-0.21 0.17)	-0.12	0.10	0.00	-0.12	(-0.32 0.07)	
<i>Child demography</i>											
=1 if female	-0.11	0.05	0.00	-0.11	(-0.22 -0.01)	0.19	0.05	0.00	0.19	(0.08 0.30)	
age (years)	0.05	0.10	0.00	0.05	(-0.14 0.24)	0.10	0.10	0.00	0.10	(-0.09 0.30)	
=1 if ethnicity is non-white	0.22	0.10	0.00	0.22	(0.03 0.41)	0.02	0.10	0.00	0.02	(-0.18 0.22)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.05	0.10	0.00	0.05	(-0.14 0.24)	0.13	0.10	0.00	0.13	(-0.06 0.33)	
<i>Size of household</i>											
log of hh size incl. cm	-0.04	0.10	0.00	-0.04	(-0.24 0.16)	-0.07	0.10	0.00	-0.07	(-0.27 0.13)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.09	0.07	0.00	0.09	(-0.04 0.23)	0.05	0.07	0.00	0.05	(-0.09 0.19)	
=1 if two or more older siblings	-0.03	0.08	0.00	-0.03	(-0.20 0.14)	-0.06	0.09	0.00	-0.06	(-0.23 0.11)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.08	0.19	0.00	0.08	(-0.28 0.45)	0.29	0.19	0.00	0.29	(-0.09 0.65)	
<i>Country where interview took place</i>											
=1 if wales	-0.08	0.31	0.00	-0.08	(-0.67 0.51)	-0.03	0.31	0.00	-0.03	(-0.64 0.59)	
=1 if nireland	0.29	0.44	0.00	0.29	(-0.58 1.14)	-0.32	0.45	0.00	-0.32	(-1.20 0.55)	
=1 if scotland	0.55	0.35	0.00	0.55	(-0.14 1.25)	-0.35	0.36	0.00	-0.35	(-1.05 0.35)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.08	0.06	0.00	-0.08	(-0.19 0.04)	-0.03	0.06	0.00	-0.03	(-0.14 0.09)	
<i>Childcare</i>											
=1 if formal childcare	0.06	0.12	0.00	0.06	(-0.17 0.29)	-0.15	0.12	0.00	-0.15	(-0.39 0.10)	
=1 if informal/ other childcare	-0.10	0.09	0.00	-0.10	(-0.28 0.08)	0.07	0.09	0.00	0.07	(-0.11 0.25)	
=1 if grandparent care	0.01	0.06	0.00	0.01	(-0.12 0.14)	0.07	0.07	0.00	0.07	(-0.06 0.20)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.08	0.07	0.00	-0.07	(-0.21 0.05)	-0.07	0.07	0.00	-0.07	(-0.20 0.07)	
=1 if working full-time	0.01	0.14	0.00	0.01	(-0.27 0.28)	-0.22	0.14	0.00	-0.22	(-0.50 0.05)	
<i>How long mother breastfed child</i>											

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Table A.3.46 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months <i>If child is naughty...</i>	0.08	0.09	0.00	0.08	(-0.09 0.25)	-0.12	0.09	0.00	-0.12	(-0.30 0.05)
=1 if mother smacks child	0.25	0.20	0.00	0.25	(-0.15 0.64)	-0.11	0.21	0.00	-0.10	(-0.52 0.29)
=1 if mother tells child off	0.02	0.05	0.00	0.02	(-0.09 0.13)	-0.22	0.05	0.00	-0.22	(-0.32 -0.11)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.14	0.08	0.00	-0.14	(-0.30 0.02)	0.28	0.08	0.00	0.28	(0.12 0.44)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.02	0.07	0.00	0.02	(-0.11 0.16)	-0.03	0.07	0.00	-0.03	(-0.17 0.11)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.15	0.11	0.00	-0.15	(-0.38 0.07)	0.25	0.12	0.00	0.25	(0.01 0.47)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.12	0.06	0.00	0.12	(0.00 0.24)	0.01	0.06	0.00	0.01	(-0.11 0.13)
<i>Maternal mental health</i>										
=1 if high distress	0.49	0.11	0.00	0.49	(0.28 0.71)	-0.16	0.11	0.00	-0.16	(-0.39 0.05)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.00	0.05	0.00	0.00	(-0.11 0.11)	-0.00	0.06	0.00	-0.00	(-0.11 0.11)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.10	0.08	0.00	-0.10	(-0.26 0.05)	0.06	0.08	0.00	0.06	(-0.10 0.22)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.19	0.09	0.00	0.19	(0.02 0.35)	-0.08	0.09	0.00	-0.09	(-0.26 0.09)
=1 if rented (housing association or private)/ other	0.16	0.08	0.00	0.16	(0.01 0.31)	-0.02	0.08	0.00	-0.02	(-0.17 0.14)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.29	0.11	0.00	-0.29	(-0.51 -0.07)	0.22	0.12	0.00	0.22	(-0.00 0.45)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.27	0.09	0.00	0.27	(0.08 0.45)	0.04	0.10	0.00	0.04	(-0.15 0.23)
=1 if managerial/ professional occupation	0.13	0.09	0.00	0.13	(-0.04 0.30)	-0.02	0.09	0.00	-0.02	(-0.18 0.16)
=1 if technical, semi-routine or routine occupation	0.07	0.07	0.00	0.07	(-0.06 0.20)	0.10	0.07	0.00	0.10	(-0.04 0.23)
=1 if can't remember or father died	0.20	0.10	0.00	0.20	(0.01 0.39)	0.14	0.10	0.00	0.14	(-0.06 0.33)
constant	0.54	0.61	0.01	0.54	(-0.68 1.71)	-0.67	0.61	0.01	-0.67	(-1.86 0.54)
σ_ϵ	0.95	0.03	0.00	0.95	(0.87 0.99)	0.96	0.03	0.00	0.97	(0.88 1.01)
σ_ζ	0.13	0.12	0.02	0.10	(0.01 0.42)	0.18	0.11	0.01	0.17	(0.02 0.43)
$\rho_{\zeta\xi}$	-0.18	0.54	0.04	-0.26	(-0.94 0.94)	0.28	0.51	0.04	0.35	(-0.80 0.99)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.47: Bayesian Estimates: SDQ PR/ PB and # Hospital Admissions (Eq. 1, TP, Age 5)

	SDQ PR					SDQ PB					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
number of hospital admissions	0.03	0.03	0.00	0.03	(-0.04 0.09)	-0.11	0.06	0.00	-0.11	(-0.22 -0.01)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.23	0.03	0.00	-0.23	(-0.29 -0.16)	0.08	0.03	0.00	0.08	(0.01 0.15)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.02	0.03	0.00	0.02	(-0.04 0.08)	-0.06	0.03	0.00	-0.06	(-0.12 0.00)	
=1 if NVQ level 3	0.01	0.03	0.00	0.01	(-0.06 0.08)	-0.00	0.03	0.00	-0.00	(-0.07 0.06)	
=1 if overseas qual. only	0.35	0.10	0.00	0.35	(0.16 0.54)	-0.17	0.10	0.00	-0.17	(-0.37 0.03)	
=1 if none of these	0.17	0.06	0.00	0.17	(0.06 0.28)	0.03	0.06	0.00	0.03	(-0.09 0.14)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	0.06	0.05	0.00	0.06	(-0.03 0.15)	0.10	0.05	0.00	0.09	(0.00 0.19)	
=1 if 25 to 29 years	0.01	0.04	0.00	0.01	(-0.06 0.09)	0.12	0.04	0.00	0.12	(0.05 0.20)	
=1 if 30 to 34 years	-0.02	0.03	0.00	-0.02	(-0.08 0.05)	0.04	0.03	0.00	0.04	(-0.02 0.11)	
<i>Child demography</i>											
=1 if female	-0.10	0.02	0.00	-0.10	(-0.14 -0.05)	0.27	0.02	0.00	0.27	(0.22 0.31)	
age (years)	-0.08	0.05	0.00	-0.08	(-0.17 0.02)	0.21	0.05	0.00	0.21	(0.11 0.30)	
=1 if ethnicity is non-white	0.20	0.05	0.00	0.20	(0.09 0.30)	0.03	0.05	0.00	0.03	(-0.07 0.14)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.10	0.05	0.00	0.10	(-0.01 0.20)	0.03	0.05	0.00	0.03	(-0.07 0.14)	
<i>Size of household</i>											
log of hh size incl. cm	-0.06	0.07	0.00	-0.06	(-0.21 0.08)	-0.09	0.07	0.00	-0.09	(-0.24 0.05)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.15	0.03	0.00	0.15	(0.09 0.20)	0.07	0.03	0.00	0.07	(0.01 0.12)	
=1 if two or more older siblings	0.07	0.04	0.00	0.07	(-0.01 0.14)	-0.04	0.04	0.00	-0.04	(-0.11 0.04)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	-0.12	0.10	0.00	-0.12	(-0.31 0.08)	0.04	0.10	0.00	0.04	(-0.16 0.24)	
<i>Country where interview took place</i>											
=1 if wales	-0.03	0.12	0.00	-0.03	(-0.26 0.20)	-0.02	0.12	0.00	-0.02	(-0.26 0.22)	
=1 if nireland	-0.12	0.26	0.00	-0.12	(-0.64 0.39)	0.20	0.26	0.00	0.20	(-0.31 0.73)	
=1 if scotland	0.11	0.14	0.00	0.11	(-0.18 0.40)	-0.10	0.15	0.00	-0.10	(-0.38 0.19)	
Time and Care											
<i>Time mother spents with child</i>											
=1 if at least just enough	-0.13	0.02	0.00	-0.13	(-0.18 -0.08)	0.04	0.02	0.00	0.04	(-0.01 0.09)	
<i>Childcare</i>											
=1 if formal childcare	-0.01	0.05	0.00	-0.01	(-0.12 0.09)	-0.03	0.05	0.00	-0.03	(-0.13 0.07)	
=1 if informal/ other childcare	0.03	0.04	0.00	0.03	(-0.05 0.12)	-0.04	0.04	0.00	-0.04	(-0.13 0.04)	
=1 if grandparent care	0.02	0.03	0.00	0.02	(-0.04 0.07)	0.02	0.03	0.00	0.02	(-0.03 0.08)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.05	0.03	0.00	-0.05	(-0.10 -0.00)	0.01	0.03	0.00	0.01	(-0.04 0.07)	
=1 if working full-time	-0.06	0.06	0.00	-0.06	(-0.17 0.05)	0.06	0.06	0.00	0.07	(-0.04 0.17)	
<i>How long mother breastfed child</i>											

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Table A.3.47 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	-0.02	0.03	0.00	-0.02	(-0.08 0.04)	0.05	0.03	0.00	0.05	(-0.01 0.11)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.33	0.10	0.00	0.33	(0.14 0.52)	-0.31	0.10	0.00	-0.31	(-0.50 -0.12)
=1 if mother tells child off	0.05	0.02	0.00	0.05	(0.00 0.09)	-0.32	0.02	0.00	-0.32	(-0.36 -0.27)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.21	0.04	0.00	-0.21	(-0.30 -0.13)	0.10	0.04	0.00	0.10	(0.02 0.19)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.08	0.03	0.00	0.08	(0.01 0.14)	-0.11	0.03	0.00	-0.11	(-0.18 -0.05)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.14	0.06	0.00	-0.14	(-0.26 -0.03)	0.11	0.06	0.00	0.11	(-0.00 0.22)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.12	0.03	0.00	0.12	(0.06 0.17)	0.05	0.03	0.00	0.05	(-0.00 0.11)
<i>Maternal mental health</i>										
=1 if high distress	0.34	0.08	0.00	0.34	(0.18 0.49)	-0.33	0.08	0.00	-0.33	(-0.48 -0.18)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.03	0.03	0.00	0.03	(-0.03 0.09)	0.00	0.03	0.00	0.00	(-0.06 0.06)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.01	0.03	0.00	-0.01	(-0.07 0.04)	-0.02	0.03	0.00	-0.02	(-0.08 0.04)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.10	0.05	0.00	0.10	(0.00 0.19)	-0.11	0.05	0.00	-0.11	(-0.20 -0.01)
=1 if rented (housing association or private)/ other	-0.02	0.04	0.00	-0.02	(-0.10 0.06)	0.00	0.04	0.00	0.00	(-0.08 0.08)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.06	0.06	0.00	-0.06	(-0.19 0.06)	0.12	0.06	0.00	0.12	(-0.01 0.24)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.11	0.05	0.00	0.11	(0.01 0.21)	-0.14	0.05	0.00	-0.14	(-0.24 -0.03)
=1 if managerial/ professional occupation	-0.06	0.03	0.00	-0.06	(-0.13 -0.00)	0.05	0.03	0.00	0.05	(-0.01 0.12)
=1 if technical, semi-routine or routine occupation	0.02	0.03	0.00	0.02	(-0.04 0.07)	0.02	0.03	0.00	0.02	(-0.04 0.07)
=1 if can't remember or father died	-0.00	0.05	0.00	-0.00	(-0.11 0.10)	0.01	0.05	0.00	0.01	(-0.10 0.11)
constant	2.34	0.35	0.00	2.34	(1.65 3.02)	-1.83	0.36	0.00	-1.83	(-2.53 -1.11)
σ_ϵ	0.94	0.02	0.00	0.95	(0.88 0.97)	0.91	0.03	0.00	0.92	(0.84 0.96)
σ_ζ	0.17	0.09	0.02	0.15	(0.06 0.38)	0.31	0.10	0.02	0.30	(0.13 0.49)
$\rho_{\zeta\epsilon}$	-0.29	0.47	0.07	-0.32	(-0.97 0.72)	0.76	0.23	0.03	0.82	(0.19 0.99)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.48: Bayesian Estimates: SDQ PR/ PB and # Hospital Admissions (Eq. 2, LP, Age 5)

	SDQ PR					SDQ PB					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	0.02	0.18	0.01	0.02	(-0.33 0.36)	0.04	0.18	0.01	0.04	(-0.32 0.38)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	-0.32	0.20	0.00	-0.32	(-0.70 0.07)	-0.31	0.20	0.00	-0.31	(-0.69 0.08)	
=1 if NVQ level 3	-0.22	0.23	0.00	-0.22	(-0.66 0.24)	-0.21	0.23	0.00	-0.21	(-0.67 0.25)	
=1 if overseas qual. only	-0.51	0.47	0.00	-0.51	(-1.45 0.40)	-0.52	0.48	0.00	-0.51	(-1.47 0.38)	
=1 if none of these	-0.67	0.27	0.00	-0.67	(-1.22 -0.14)	-0.66	0.28	0.00	-0.66	(-1.20 -0.11)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	0.26	0.28	0.00	0.27	(-0.28 0.81)	0.25	0.27	0.00	0.25	(-0.27 0.79)	
=1 if 25 to 29 years	0.25	0.26	0.00	0.25	(-0.25 0.75)	0.24	0.25	0.00	0.24	(-0.26 0.75)	
=1 if 30 to 34 years	0.23	0.26	0.00	0.24	(-0.29 0.74)	0.22	0.26	0.00	0.22	(-0.28 0.75)	
<i>Child demography</i>											
=1 if female	-0.40	0.14	0.00	-0.40	(-0.68 -0.13)	-0.40	0.14	0.00	-0.40	(-0.68 -0.13)	
age (years)	-0.04	0.26	0.02	-0.03	(-0.58 0.46)	-0.05	0.28	0.02	-0.04	(-0.60 0.49)	
=1 if ethnicity is non-white	-0.41	0.28	0.00	-0.41	(-0.95 0.13)	-0.41	0.28	0.00	-0.41	(-0.96 0.12)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.41	0.24	0.00	0.42	(-0.06 0.88)	0.42	0.25	0.00	0.42	(-0.06 0.90)	
<i>Size of household</i>											
log of hh size incl. cm	-0.23	0.24	0.01	-0.22	(-0.71 0.25)	-0.23	0.25	0.01	-0.23	(-0.71 0.25)	
<i>Number of older siblings</i>											
=1 if no older siblings	-0.21	0.18	0.00	-0.21	(-0.57 0.14)	-0.21	0.18	0.00	-0.21	(-0.57 0.15)	
=1 if two or more older siblings	-0.12	0.22	0.00	-0.12	(-0.56 0.32)	-0.12	0.23	0.00	-0.12	(-0.56 0.33)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.01	0.52	0.02	0.01	(-0.98 1.05)	-0.03	0.53	0.02	-0.05	(-1.07 1.04)	
<i>Country where interview took place</i>											
=1 if wales	-0.35	0.52	0.01	-0.34	(-1.37 0.67)	-0.34	0.52	0.01	-0.34	(-1.38 0.66)	
=1 if nireland	-0.17	0.60	0.01	-0.18	(-1.33 1.00)	-0.15	0.59	0.01	-0.16	(-1.30 0.99)	
=1 if scotland	-0.50	0.56	0.01	-0.49	(-1.62 0.58)	-0.50	0.57	0.01	-0.49	(-1.62 0.62)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.10	0.19	0.00	-0.10	(-0.45 0.27)	-0.11	0.19	0.00	-0.11	(-0.47 0.26)	
<i>Childcare</i>											
=1 if formal childcare	0.04	0.20	0.00	0.04	(-0.36 0.42)	0.04	0.20	0.00	0.04	(-0.35 0.43)	
=1 if informal/ other childcare	-0.13	0.34	0.00	-0.12	(-0.81 0.54)	-0.13	0.33	0.00	-0.13	(-0.80 0.52)	
=1 if grandparent care	-0.12	0.19	0.00	-0.12	(-0.49 0.25)	-0.12	0.19	0.00	-0.12	(-0.49 0.25)	
<i>Maternal employment (t - 1)</i>											
=1 if working part-time	0.01	0.18	0.00	0.01	(-0.34 0.37)	0.00	0.18	0.00	0.00	(-0.35 0.35)	
=1 if working full-time	-0.07	0.37	0.00	-0.06	(-0.81 0.64)	-0.06	0.38	0.00	-0.06	(-0.81 0.68)	
<i>How long mother breastfed child</i>											
=1 if at least 6 months	-0.30	0.25	0.00	-0.30	(-0.79 0.19)	-0.29	0.25	0.00	-0.28	(-0.78 0.20)	
<i>If child is naughty...</i>											

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Table A.3.48 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.03	0.23	0.00	-0.03	(-0.49 0.43)	-0.00	0.23	0.00	-0.00	(-0.46 0.45)
=1 if mother tells child off	-0.30	0.18	0.00	-0.30	(-0.66 0.07)	-0.30	0.19	0.00	-0.30	(-0.67 0.07)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.42	0.17	0.00	-0.42	(-0.76 -0.09)	-0.42	0.17	0.00	-0.43	(-0.75 -0.10)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	-0.25	0.19	0.00	-0.25	(-0.63 0.11)	-0.25	0.19	0.00	-0.25	(-0.63 0.10)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.01	0.26	0.00	-0.01	(-0.51 0.49)	-0.02	0.26	0.00	-0.02	(-0.51 0.50)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.21	0.16	0.00	0.21	(-0.10 0.53)	0.21	0.16	0.00	0.22	(-0.09 0.53)
<i>Maternal mental health</i>										
=1 if high distress	0.14	0.27	0.00	0.14	(-0.40 0.68)	0.13	0.27	0.00	0.13	(-0.39 0.65)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.05	0.15	0.00	0.05	(-0.25 0.35)	0.05	0.15	0.00	0.05	(-0.25 0.36)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.34	0.24	0.00	-0.34	(-0.81 0.13)	-0.35	0.24	0.00	-0.35	(-0.83 0.12)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.31	0.21	0.00	0.31	(-0.12 0.73)	0.31	0.22	0.00	0.31	(-0.12 0.74)
=1 if rented (housing association or private)/ other	0.10	0.20	0.00	0.09	(-0.29 0.49)	0.09	0.20	0.00	0.09	(-0.30 0.49)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	0.23	0.31	0.01	0.24	(-0.38 0.86)	0.26	0.31	0.01	0.25	(-0.35 0.89)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.25	0.25	0.00	0.25	(-0.24 0.73)	0.26	0.24	0.00	0.26	(-0.23 0.73)
=1 if managerial/ professional occupation	0.15	0.23	0.00	0.15	(-0.31 0.62)	0.15	0.23	0.00	0.15	(-0.31 0.61)
=1 if technical, semi-routine or routine occupation	0.18	0.18	0.00	0.18	(-0.17 0.54)	0.18	0.18	0.00	0.18	(-0.17 0.53)
=1 if can't remember or father died	0.39	0.24	0.00	0.39	(-0.09 0.87)	0.38	0.25	0.00	0.38	(-0.12 0.87)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	-0.20	0.24	0.00	-0.20	(-0.68 0.27)	-0.20	0.24	0.00	-0.20	(-0.68 0.27)
constant	-0.60	0.84	0.05	-0.61	(-2.21 1.03)	-0.62	0.86	0.05	-0.61	(-2.30 1.11)
α	0.93	0.28	0.01	0.88	(0.55 1.64)	0.93	0.28	0.01	0.87	(0.55 1.63)
$\ln\alpha$	-0.11	0.28	0.01	-0.13	(-0.60 0.50)	-0.12	0.28	0.01	-0.14	(-0.61 0.49)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.49: Bayesian Estimates: SDQ PR/ PB and # Hospital Admissions (Eq. 2, TP, Age 5)

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Standard Background Controls										
<i>Income</i>										
log of permanent family income (weekly, imp.)	-0.08	0.09	0.01	-0.08	(-0.27 0.10)	-0.10	0.09	0.01	-0.10	(-0.27 0.07)
<i>Maternal education</i>										
=1 if NVQ level 1 or 2	-0.01	0.09	0.00	-0.01	(-0.18 0.15)	-0.02	0.08	0.00	-0.02	(-0.19 0.15)
=1 if NVQ level 3	-0.05	0.10	0.00	-0.05	(-0.25 0.14)	-0.05	0.10	0.00	-0.05	(-0.24 0.14)
=1 if overseas qual. only	-0.34	0.29	0.00	-0.33	(-0.93 0.24)	-0.36	0.29	0.00	-0.35	(-0.94 0.21)
=1 if none of these	0.02	0.15	0.00	0.02	(-0.28 0.32)	0.04	0.15	0.00	0.04	(-0.26 0.33)
<i>Mother's age at birth</i>										
=1 if less than 25 years	0.26	0.13	0.00	0.26	(0.02 0.51)	0.25	0.13	0.00	0.25	(0.01 0.50)
=1 if 25 to 29 years	0.12	0.10	0.00	0.12	(-0.08 0.32)	0.11	0.10	0.00	0.11	(-0.09 0.31)
=1 if 30 to 34 years	0.04	0.10	0.00	0.04	(-0.15 0.23)	0.04	0.10	0.00	0.04	(-0.15 0.23)
<i>Child demography</i>										
=1 if female	-0.22	0.06	0.00	-0.22	(-0.35 -0.09)	-0.21	0.07	0.00	-0.21	(-0.34 -0.08)
age (years)	0.30	0.15	0.01	0.30	(-0.00 0.61)	0.28	0.16	0.01	0.28	(-0.05 0.59)
=1 if ethnicity is non-white	0.07	0.15	0.00	0.07	(-0.24 0.37)	0.05	0.15	0.00	0.05	(-0.26 0.35)
<i>Child's health endowment</i>										
=1 if birth weight < 2500g	0.57	0.13	0.00	0.57	(0.31 0.82)	0.56	0.13	0.00	0.56	(0.30 0.81)
<i>Size of household</i>										
log of hh size incl. cm	-0.57	0.19	0.01	-0.57	(-0.94 -0.19)	-0.55	0.20	0.01	-0.55	(-0.94 -0.16)
<i>Number of older siblings</i>										
=1 if no older siblings	-0.07	0.08	0.00	-0.07	(-0.23 0.09)	-0.06	0.08	0.00	-0.06	(-0.23 0.10)
=1 if two or more older siblings	-0.05	0.11	0.00	-0.05	(-0.26 0.17)	-0.06	0.11	0.00	-0.06	(-0.27 0.16)
<i>Respondent's relationship to child</i>										
=1 if natural mother of child	0.61	0.40	0.02	0.59	(-0.14 1.44)	0.56	0.39	0.02	0.55	(-0.14 1.39)
<i>Country where interview took place</i>										
=1 if wales	0.63	0.33	0.01	0.62	(-0.02 1.27)	0.63	0.33	0.01	0.63	(-0.03 1.30)
=1 if nireland	0.03	0.51	0.02	0.04	(-0.97 1.02)	0.03	0.51	0.02	0.03	(-0.97 1.01)
=1 if scotland	0.18	0.41	0.01	0.18	(-0.60 0.98)	0.18	0.41	0.01	0.18	(-0.61 0.99)
Time and Care										
<i>Time mother spends with child</i>										
=1 if at least just enough	-0.06	0.08	0.00	-0.06	(-0.22 0.11)	-0.07	0.08	0.00	-0.07	(-0.23 0.10)
<i>Childcare</i>										
=1 if formal childcare	0.10	0.09	0.00	0.09	(-0.08 0.27)	0.10	0.09	0.00	0.10	(-0.07 0.27)
=1 if informal/ other childcare	0.10	0.16	0.00	0.10	(-0.22 0.40)	0.11	0.16	0.00	0.11	(-0.21 0.41)
=1 if grandparent care	-0.03	0.09	0.00	-0.03	(-0.22 0.15)	-0.04	0.09	0.00	-0.04	(-0.22 0.14)
<i>Maternal employment (t - 1)</i>										
=1 if working part-time	-0.07	0.07	0.00	-0.07	(-0.21 0.08)	-0.07	0.07	0.00	-0.07	(-0.21 0.08)
=1 if working full-time	-0.00	0.14	0.00	-0.00	(-0.29 0.28)	0.01	0.14	0.00	0.01	(-0.27 0.28)
<i>How long mother breastfed child</i>										
=1 if at least 6 months	-0.18	0.09	0.00	-0.18	(-0.36 -0.00)	-0.18	0.09	0.00	-0.18	(-0.36 -0.01)
<i>If child is naughty...</i>										

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Table A.3.49 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.02	0.11	0.00	-0.02	(-0.24 0.18)	0.01	0.11	0.00	0.01	(-0.21 0.22)
=1 if mother tells child off	0.05	0.09	0.00	0.05	(-0.13 0.23)	0.08	0.09	0.00	0.08	(-0.10 0.26)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	0.04	0.09	0.00	0.04	(-0.14 0.21)	0.04	0.09	0.00	0.04	(-0.14 0.20)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	-0.10	0.09	0.00	-0.10	(-0.29 0.08)	-0.10	0.09	0.00	-0.09	(-0.29 0.09)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.07	0.15	0.00	-0.07	(-0.36 0.24)	-0.08	0.15	0.00	-0.08	(-0.38 0.22)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.37	0.08	0.00	0.37	(0.22 0.52)	0.38	0.07	0.00	0.38	(0.23 0.52)
<i>Maternal mental health</i>										
=1 if high distress	0.36	0.20	0.00	0.36	(-0.05 0.74)	0.34	0.19	0.00	0.35	(-0.04 0.73)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.13	0.08	0.00	0.13	(-0.03 0.29)	0.13	0.08	0.00	0.14	(-0.02 0.29)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.22	0.09	0.00	-0.22	(-0.40 -0.04)	-0.23	0.09	0.00	-0.22	(-0.40 -0.05)
Other										
<i>Housing tenure</i>										
=1 if council rented	-0.07	0.13	0.00	-0.07	(-0.32 0.17)	-0.08	0.12	0.00	-0.08	(-0.32 0.16)
=1 if rented (housing association or private)/ other	-0.08	0.11	0.00	-0.08	(-0.29 0.14)	-0.09	0.11	0.00	-0.10	(-0.31 0.12)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.06	0.21	0.01	-0.06	(-0.46 0.37)	-0.07	0.20	0.01	-0.07	(-0.46 0.32)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	-0.19	0.14	0.00	-0.19	(-0.47 0.09)	-0.20	0.14	0.00	-0.20	(-0.48 0.09)
=1 if managerial/ professional occupation	-0.17	0.09	0.00	-0.17	(-0.36 0.01)	-0.17	0.09	0.00	-0.16	(-0.35 0.02)
=1 if technical, semi-routine or routine occupation	-0.07	0.08	0.00	-0.07	(-0.23 0.08)	-0.07	0.08	0.00	-0.07	(-0.22 0.08)
=1 if can't remember or father died	-0.10	0.14	0.00	-0.10	(-0.38 0.19)	-0.08	0.15	0.00	-0.08	(-0.37 0.20)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	0.25	0.14	0.00	0.25	(-0.02 0.53)	0.30	0.14	0.00	0.30	(0.02 0.56)
constant	-2.08	0.71	0.07	-2.03	(-3.56 -0.81)	-1.93	0.66	0.06	-1.91	(-3.23 -0.67)
α	1.34	0.25	0.01	1.31	(0.96 1.91)	1.37	0.25	0.01	1.34	(0.98 1.94)
$\ln\alpha$	0.28	0.18	0.01	0.27	(-0.04 0.64)	0.30	0.17	0.01	0.29	(-0.02 0.66)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.50: Bayesian Estimates: SDQ ES/ CP and SDQ HA (Eq. 1, LP, Age 5)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
hyperactivity/inattention	0.09	0.03	0.00	0.09	(0.04 0.14)	0.23	0.02	0.00	0.23	(0.19 0.26)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.03	0.08	0.00	-0.03	(-0.19 0.14)	-0.03	0.07	0.00	-0.03	(-0.17 0.12)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.06	0.08	0.00	0.06	(-0.10 0.22)	0.03	0.07	0.00	0.03	(-0.11 0.17)	
=1 if NVQ level 3	0.10	0.10	0.00	0.10	(-0.09 0.29)	-0.14	0.08	0.00	-0.14	(-0.31 0.02)	
=1 if overseas qual. only	0.13	0.20	0.00	0.13	(-0.25 0.51)	0.13	0.17	0.00	0.12	(-0.21 0.46)	
=1 if none of these	0.13	0.12	0.00	0.13	(-0.11 0.36)	0.31	0.10	0.00	0.31	(0.11 0.52)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	-0.18	0.12	0.00	-0.18	(-0.43 0.06)	0.04	0.11	0.00	0.04	(-0.17 0.25)	
=1 if 25 to 29 years	-0.03	0.11	0.00	-0.03	(-0.25 0.19)	0.07	0.10	0.00	0.06	(-0.13 0.26)	
=1 if 30 to 34 years	-0.10	0.12	0.00	-0.10	(-0.33 0.12)	-0.05	0.10	0.00	-0.05	(-0.25 0.15)	
<i>Child demography</i>											
=1 if female	0.22	0.06	0.00	0.22	(0.10 0.34)	0.01	0.05	0.00	0.01	(-0.09 0.12)	
age (years)	-0.06	0.11	0.00	-0.06	(-0.27 0.15)	-0.11	0.09	0.00	-0.11	(-0.30 0.07)	
=1 if ethnicity is non-white	0.03	0.12	0.00	0.03	(-0.19 0.26)	0.00	0.10	0.00	0.00	(-0.20 0.21)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.09	0.12	0.00	0.09	(-0.14 0.32)	-0.21	0.10	0.00	-0.21	(-0.42 -0.01)	
<i>Size of household</i>											
log of hh size incl. cm	0.11	0.11	0.00	0.11	(-0.12 0.34)	0.17	0.10	0.00	0.17	(-0.02 0.37)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.16	0.08	0.00	0.16	(0.01 0.31)	-0.06	0.07	0.00	-0.06	(-0.20 0.07)	
=1 if two or more older siblings	0.00	0.10	0.00	-0.00	(-0.19 0.19)	-0.01	0.09	0.00	-0.01	(-0.18 0.16)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	-0.04	0.20	0.00	-0.04	(-0.44 0.36)	0.22	0.18	0.00	0.22	(-0.12 0.56)	
<i>Country where interview took place</i>											
=1 if wales	0.05	0.35	0.00	0.05	(-0.64 0.74)	-0.11	0.32	0.00	-0.10	(-0.75 0.53)	
=1 if nireland	0.03	0.45	0.00	0.03	(-0.84 0.92)	0.84	0.41	0.00	0.84	(0.04 1.66)	
=1 if scotland	0.21	0.37	0.00	0.21	(-0.53 0.95)	0.14	0.35	0.00	0.14	(-0.53 0.82)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.11	0.07	0.00	-0.11	(-0.24 0.02)	0.05	0.06	0.00	0.05	(-0.07 0.16)	
<i>Childcare</i>											
=1 if formal childcare	-0.14	0.13	0.00	-0.14	(-0.40 0.12)	0.19	0.11	0.00	0.19	(-0.03 0.42)	
=1 if informal/ other childcare	-0.13	0.10	0.00	-0.13	(-0.34 0.07)	0.04	0.09	0.00	0.03	(-0.14 0.21)	
=1 if grandparent care	0.10	0.07	0.00	0.10	(-0.04 0.24)	0.03	0.06	0.00	0.03	(-0.09 0.15)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.06	0.07	0.00	-0.05	(-0.20 0.09)	0.03	0.06	0.00	0.03	(-0.10 0.15)	
=1 if working full-time	-0.13	0.16	0.00	-0.13	(-0.44 0.17)	-0.06	0.13	0.00	-0.06	(-0.32 0.20)	
<i>How long mother breastfed child</i>											

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Table A.3.50 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.20	0.10	0.00	0.20	(0.00 0.41)	-0.04	0.09	0.00	-0.04	(-0.21 0.14)
<i>If child is naughty...</i>										
=1 if mother smacks child	-0.01	0.21	0.00	-0.01	(-0.43 0.41)	0.87	0.19	0.00	0.87	(0.51 1.24)
=1 if mother tells child off	0.10	0.06	0.00	0.10	(-0.02 0.22)	0.29	0.05	0.00	0.29	(0.18 0.39)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.01	0.09	0.00	-0.01	(-0.19 0.17)	-0.27	0.08	0.00	-0.27	(-0.42 -0.11)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.07	0.08	0.00	0.07	(-0.08 0.22)	0.05	0.07	0.00	0.05	(-0.08 0.18)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.21	0.13	0.00	-0.21	(-0.46 0.04)	-0.37	0.11	0.00	-0.37	(-0.59 -0.15)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.18	0.07	0.00	0.18	(0.05 0.32)	0.13	0.06	0.00	0.13	(0.01 0.25)
<i>Maternal mental health</i>										
=1 if high distress	0.65	0.13	0.00	0.65	(0.39 0.90)	0.36	0.11	0.00	0.36	(0.14 0.58)
<i>Does mother currently smoke</i>										
=1 if currently smokes	-0.04	0.06	0.00	-0.04	(-0.16 0.09)	0.09	0.05	0.00	0.09	(-0.02 0.19)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	0.03	0.09	0.00	0.03	(-0.14 0.21)	0.12	0.08	0.00	0.12	(-0.04 0.27)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.13	0.10	0.00	0.13	(-0.06 0.32)	0.08	0.08	0.00	0.08	(-0.09 0.25)
=1 if rented (housing association or private)/ other	0.04	0.09	0.00	0.04	(-0.13 0.21)	0.11	0.08	0.00	0.11	(-0.04 0.26)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.10	0.12	0.00	-0.10	(-0.34 0.14)	-0.15	0.11	0.00	-0.15	(-0.36 0.06)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.15	0.11	0.00	0.14	(-0.07 0.35)	0.11	0.10	0.00	0.11	(-0.07 0.30)
=1 if managerial/ professional occupation	-0.03	0.10	0.00	-0.03	(-0.22 0.15)	0.07	0.08	0.00	0.07	(-0.10 0.23)
=1 if technical, semi-routine or routine occupation	0.08	0.07	0.00	0.08	(-0.06 0.23)	-0.00	0.07	0.00	-0.00	(-0.14 0.13)
=1 if can't remember or father died	0.06	0.11	0.00	0.06	(-0.16 0.28)	0.09	0.10	0.00	0.09	(-0.10 0.29)
constant	-0.02	0.64	0.01	-0.02	(-1.30 1.24)	-0.34	0.60	0.01	-0.34	(-1.52 0.84)
σ_ϵ	0.93	0.04	0.00	0.93	(0.84 1.00)	0.67	0.04	0.00	0.67	(0.60 0.75)
σ_ζ	0.26	0.13	0.01	0.27	(0.02 0.51)	0.55	0.06	0.00	0.55	(0.43 0.65)
$\rho_{\zeta\epsilon}$	-0.66	0.32	0.01	-0.75	(-0.99 0.27)	-0.97	0.03	0.00	-0.98	(-1.00 -0.87)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.51: Bayesian Estimates: SDQ ES/ CP and SDQ HA (Eq. 1, TP, Age 5)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
hyperactivity/inattention	0.20	0.01	0.00	0.20	(0.17 0.22)	0.29	0.01	0.00	0.29	(0.27 0.30)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.07	0.04	0.00	-0.07	(-0.14 0.01)	-0.06	0.04	0.00	-0.06	(-0.13 0.01)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	-0.07	0.03	0.00	-0.07	(-0.14 -0.00)	-0.00	0.03	0.00	-0.00	(-0.06 0.06)	
=1 if NVQ level 3	-0.12	0.04	0.00	-0.12	(-0.19 -0.04)	-0.04	0.04	0.00	-0.04	(-0.11 0.03)	
=1 if overseas qual. only	0.16	0.12	0.00	0.16	(-0.08 0.39)	0.28	0.11	0.00	0.28	(0.06 0.49)	
=1 if none of these	-0.00	0.07	0.00	-0.00	(-0.14 0.14)	0.12	0.07	0.00	0.12	(-0.01 0.25)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	-0.01	0.05	0.00	-0.01	(-0.11 0.10)	0.12	0.05	0.00	0.12	(0.02 0.21)	
=1 if 25 to 29 years	0.02	0.04	0.00	0.02	(-0.06 0.10)	-0.04	0.04	0.00	-0.04	(-0.12 0.03)	
=1 if 30 to 34 years	0.03	0.04	0.00	0.03	(-0.05 0.10)	-0.02	0.04	0.00	-0.02	(-0.09 0.05)	
<i>Child demography</i>											
=1 if female	0.16	0.03	0.00	0.16	(0.10 0.21)	0.03	0.03	0.00	0.03	(-0.02 0.08)	
age (years)	-0.04	0.05	0.00	-0.04	(-0.14 0.06)	-0.15	0.05	0.00	-0.15	(-0.25 -0.06)	
=1 if ethnicity is non-white	0.07	0.06	0.00	0.07	(-0.05 0.20)	-0.01	0.06	0.00	-0.01	(-0.13 0.10)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.10	0.06	0.00	0.10	(-0.03 0.22)	-0.01	0.06	0.00	-0.01	(-0.12 0.11)	
<i>Size of household</i>											
log of hh size incl. cm	0.22	0.08	0.00	0.22	(0.06 0.39)	0.22	0.08	0.00	0.22	(0.07 0.37)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.10	0.03	0.00	0.10	(0.04 0.16)	-0.19	0.03	0.00	-0.19	(-0.25 -0.13)	
=1 if two or more older siblings	-0.04	0.04	0.00	-0.04	(-0.13 0.05)	-0.02	0.04	0.00	-0.02	(-0.10 0.06)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.02	0.11	0.00	0.02	(-0.20 0.24)	-0.03	0.10	0.00	-0.03	(-0.23 0.16)	
<i>Country where interview took place</i>											
=1 if wales	0.01	0.13	0.00	0.01	(-0.26 0.27)	-0.05	0.12	0.00	-0.05	(-0.29 0.19)	
=1 if nireland	0.21	0.30	0.00	0.21	(-0.38 0.80)	0.12	0.27	0.00	0.12	(-0.42 0.64)	
=1 if scotland	0.11	0.16	0.00	0.11	(-0.21 0.43)	0.12	0.15	0.00	0.12	(-0.17 0.40)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.06	0.03	0.00	-0.06	(-0.12 -0.01)	0.01	0.02	0.00	0.01	(-0.04 0.06)	
<i>Childcare</i>											
=1 if formal childcare	-0.07	0.06	0.00	-0.07	(-0.18 0.05)	-0.04	0.05	0.00	-0.04	(-0.13 0.06)	
=1 if informal/ other childcare	-0.00	0.05	0.00	-0.00	(-0.10 0.10)	-0.06	0.04	0.00	-0.06	(-0.15 0.03)	
=1 if grandparent care	0.01	0.03	0.00	0.01	(-0.05 0.07)	0.00	0.03	0.00	0.00	(-0.05 0.05)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.08	0.03	0.00	-0.08	(-0.14 -0.02)	0.04	0.03	0.00	0.04	(-0.01 0.10)	
=1 if working full-time	-0.12	0.06	0.00	-0.12	(-0.24 -0.00)	0.09	0.05	0.00	0.09	(-0.02 0.19)	
<i>How long mother breastfed child</i>											

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Table A.3.51 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.05	0.04	0.00	0.05	(-0.02 0.12)	-0.04	0.03	0.00	-0.04	(-0.10 0.03)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.11	0.11	0.00	0.11	(-0.11 0.33)	0.65	0.10	0.00	0.65	(0.46 0.85)
=1 if mother tells child off	0.03	0.03	0.00	0.03	(-0.02 0.08)	0.36	0.02	0.00	0.36	(0.32 0.41)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.08	0.05	0.00	-0.08	(-0.18 0.01)	-0.20	0.04	0.00	-0.20	(-0.28 -0.12)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.07	0.04	0.00	0.07	(-0.00 0.15)	0.08	0.03	0.00	0.07	(0.01 0.14)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.06	0.07	0.00	-0.06	(-0.19 0.07)	-0.14	0.06	0.00	-0.14	(-0.26 -0.03)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.11	0.03	0.00	0.11	(0.05 0.17)	0.02	0.03	0.00	0.02	(-0.03 0.08)
<i>Maternal mental health</i>										
=1 if high distress	0.31	0.09	0.00	0.31	(0.13 0.48)	0.39	0.08	0.00	0.39	(0.24 0.55)
<i>Does mother currently smoke</i>										
=1 if currently smokes	-0.03	0.03	0.00	-0.03	(-0.10 0.04)	0.09	0.03	0.00	0.09	(0.03 0.15)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.04	0.03	0.00	-0.04	(-0.10 0.03)	0.05	0.03	0.00	0.05	(-0.01 0.11)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.04	0.06	0.00	0.04	(-0.08 0.15)	0.09	0.05	0.00	0.09	(-0.01 0.20)
=1 if rented (housing association or private)/ other	-0.06	0.05	0.00	-0.06	(-0.15 0.03)	0.02	0.04	0.00	0.02	(-0.06 0.11)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.08	0.07	0.00	-0.08	(-0.22 0.06)	0.06	0.06	0.00	0.06	(-0.07 0.18)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.00	0.06	0.00	0.00	(-0.12 0.13)	0.03	0.06	0.00	0.03	(-0.09 0.14)
=1 if managerial/ professional occupation	0.06	0.04	0.00	0.06	(-0.01 0.13)	0.04	0.03	0.00	0.04	(-0.02 0.11)
=1 if technical, semi-routine or routine occupation	-0.00	0.03	0.00	-0.00	(-0.07 0.06)	0.01	0.03	0.00	0.01	(-0.04 0.07)
=1 if can't remember or father died	-0.09	0.06	0.00	-0.09	(-0.21 0.03)	0.05	0.06	0.00	0.05	(-0.06 0.17)
constant	-0.31	0.40	0.00	-0.31	(-1.09 0.47)	-0.16	0.36	0.00	-0.16	(-0.87 0.54)
σ_ϵ	0.77	0.04	0.00	0.77	(0.69 0.84)	0.55	0.03	0.00	0.55	(0.49 0.60)
σ_ζ	0.67	0.05	0.00	0.67	(0.56 0.77)	0.76	0.03	0.00	0.76	(0.71 0.81)
$\rho_{\zeta\epsilon}$	-0.97	0.03	0.00	-0.97	(-1.00 -0.88)	-0.99	0.01	0.00	-0.99	(-1.00 -0.97)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.52: Bayesian Estimates: SDQ ES/ CP and SDQ HA (Eq. 2, LP, Age 5)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	0.27	0.16	0.00	0.27	(-0.04 0.58)	0.30	0.15	0.00	0.30	(-0.01 0.59)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.31	0.17	0.00	0.31	(-0.04 0.66)	0.33	0.17	0.00	0.33	(-0.01 0.66)	
=1 if NVQ level 3	0.39	0.20	0.00	0.39	(-0.01 0.78)	0.41	0.20	0.00	0.41	(0.03 0.80)	
=1 if overseas qual. only	0.71	0.41	0.00	0.71	(-0.07 1.52)	0.67	0.40	0.00	0.67	(-0.11 1.47)	
=1 if none of these	0.18	0.25	0.00	0.18	(-0.29 0.67)	0.20	0.24	0.00	0.20	(-0.26 0.66)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	0.67	0.25	0.00	0.67	(0.19 1.15)	0.63	0.24	0.00	0.63	(0.14 1.11)	
=1 if 25 to 29 years	0.42	0.23	0.00	0.42	(-0.04 0.86)	0.39	0.22	0.00	0.38	(-0.05 0.82)	
=1 if 30 to 34 years	0.34	0.23	0.00	0.35	(-0.12 0.80)	0.33	0.23	0.00	0.33	(-0.12 0.77)	
<i>Child demography</i>											
=1 if female	-0.59	0.12	0.00	-0.59	(-0.83 -0.35)	-0.57	0.12	0.00	-0.57	(-0.81 -0.33)	
age (years)	0.07	0.25	0.00	0.07	(-0.41 0.55)	0.04	0.24	0.00	0.04	(-0.43 0.49)	
=1 if ethnicity is non-white	0.28	0.24	0.00	0.29	(-0.18 0.74)	0.27	0.23	0.00	0.27	(-0.17 0.73)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.56	0.28	0.00	0.56	(-0.00 1.11)	0.55	0.28	0.00	0.55	(0.01 1.10)	
<i>Size of household</i>											
log of hh size incl. cm	-0.13	0.23	0.00	-0.13	(-0.56 0.32)	-0.21	0.22	0.00	-0.21	(-0.64 0.21)	
<i>Number of older siblings</i>											
=1 if no older siblings	-0.05	0.16	0.00	-0.06	(-0.37 0.27)	-0.08	0.16	0.00	-0.08	(-0.39 0.22)	
=1 if two or more older siblings	0.28	0.20	0.00	0.28	(-0.12 0.67)	0.28	0.20	0.00	0.28	(-0.11 0.67)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.37	0.47	0.00	0.37	(-0.54 1.30)	0.34	0.45	0.00	0.34	(-0.54 1.24)	
<i>Country where interview took place</i>											
=1 if wales	-0.53	0.53	0.01	-0.53	(-1.56 0.50)	-0.54	0.52	0.01	-0.55	(-1.56 0.47)	
=1 if nireland	0.14	0.57	0.01	0.14	(-0.99 1.26)	0.25	0.57	0.01	0.26	(-0.85 1.37)	
=1 if scotland	-0.19	0.52	0.01	-0.20	(-1.22 0.83)	-0.18	0.51	0.01	-0.18	(-1.19 0.82)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	0.00	0.17	0.00	0.00	(-0.33 0.33)	0.02	0.16	0.00	0.02	(-0.29 0.33)	
<i>Childcare</i>											
=1 if formal childcare	0.24	0.18	0.00	0.23	(-0.11 0.58)	0.24	0.17	0.00	0.24	(-0.08 0.58)	
=1 if informal/ other childcare	-0.02	0.28	0.00	-0.02	(-0.56 0.54)	-0.01	0.27	0.00	-0.01	(-0.54 0.52)	
=1 if grandparent care	0.03	0.16	0.00	0.03	(-0.29 0.36)	-0.00	0.15	0.00	-0.01	(-0.30 0.30)	
<i>Maternal employment (t - 1)</i>											
=1 if working part-time	-0.09	0.15	0.00	-0.09	(-0.40 0.21)	-0.09	0.15	0.00	-0.09	(-0.38 0.20)	
=1 if working full-time	0.15	0.32	0.00	0.14	(-0.48 0.77)	0.13	0.30	0.00	0.13	(-0.46 0.71)	
<i>How long mother breastfed child</i>											
=1 if at least 6 months	-0.28	0.21	0.00	-0.27	(-0.70 0.13)	-0.27	0.21	0.00	-0.27	(-0.67 0.14)	
<i>If child is naughty...</i>											

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Table A.3.52 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.46	0.22	0.00	0.46	(0.03 0.89)	0.39	0.21	0.00	0.40	(-0.00 0.80)
=1 if mother tells child off	0.27	0.21	0.00	0.27	(-0.15 0.68)	0.19	0.20	0.00	0.20	(-0.19 0.57)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.13	0.15	0.00	-0.13	(-0.43 0.16)	-0.16	0.14	0.00	-0.16	(-0.45 0.12)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.20	0.16	0.00	0.20	(-0.12 0.52)	0.17	0.15	0.00	0.17	(-0.14 0.47)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.21	0.24	0.00	-0.22	(-0.67 0.26)	-0.18	0.23	0.00	-0.17	(-0.62 0.27)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	-0.11	0.15	0.00	-0.11	(-0.39 0.18)	-0.09	0.14	0.00	-0.09	(-0.36 0.18)
<i>Maternal mental health</i>										
=1 if high distress	0.47	0.26	0.00	0.47	(-0.03 0.96)	0.45	0.24	0.00	0.45	(-0.02 0.93)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.40	0.16	0.00	0.40	(0.09 0.70)	0.34	0.15	0.00	0.34	(0.05 0.62)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.32	0.20	0.00	-0.32	(-0.72 0.07)	-0.31	0.19	0.00	-0.32	(-0.68 0.06)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.06	0.19	0.00	0.06	(-0.32 0.44)	0.09	0.18	0.00	0.09	(-0.27 0.46)
=1 if rented (housing association or private)/ other	0.28	0.17	0.00	0.28	(-0.05 0.62)	0.24	0.17	0.00	0.24	(-0.08 0.57)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.36	0.25	0.00	-0.36	(-0.84 0.13)	-0.21	0.24	0.00	-0.21	(-0.67 0.26)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.34	0.22	0.00	0.35	(-0.09 0.77)	0.33	0.22	0.00	0.33	(-0.10 0.75)
=1 if managerial/ professional occupation	-0.01	0.20	0.00	-0.01	(-0.41 0.38)	-0.04	0.20	0.00	-0.03	(-0.42 0.35)
=1 if technical, semi-routine or routine occupation	0.23	0.15	0.00	0.23	(-0.07 0.53)	0.22	0.15	0.00	0.22	(-0.08 0.51)
=1 if can't remember or father died	0.39	0.23	0.00	0.39	(-0.07 0.85)	0.39	0.23	0.00	0.39	(-0.05 0.83)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	-0.15	0.21	0.00	-0.15	(-0.58 0.27)	-0.12	0.20	0.00	-0.12	(-0.52 0.27)
Hyperactivity Risk Factors										
<i>Gestational age</i>										
=1 if gestational age < 37 weeks	-0.10	0.26	0.00	-0.10	(-0.62 0.41)	-0.08	0.25	0.00	-0.09	(-0.58 0.40)
<i>Maternal mental health (age 1)</i>										
=1 if increased risk of depression/ anxiety	0.12	0.17	0.00	0.12	(-0.22 0.46)	0.05	0.16	0.00	0.05	(-0.26 0.36)
<i>Alcohol consumption during pregnancy</i>										
=1 if 1-2 times per month	0.21	0.24	0.00	0.22	(-0.27 0.69)	0.24	0.23	0.00	0.24	(-0.21 0.69)
=1 if at least once a week	0.28	0.22	0.00	0.28	(-0.14 0.71)	0.25	0.20	0.00	0.25	(-0.15 0.65)
<i>Smoking during pregnancy</i>										
=1 if mother smoked during pregnancy	-0.37	0.16	0.00	-0.37	(-0.68 -0.06)	-0.32	0.15	0.00	-0.32	(-0.61 -0.03)
<i>Smoking in the same room as child</i>										
=1 if anyone smokes in same room as child (age 1)	0.26	0.17	0.00	0.26	(-0.07 0.60)	0.27	0.16	0.00	0.27	(-0.05 0.59)
=1 if anyone smokes in same room as child (age 3)	0.00	0.16	0.00	0.00	(-0.30 0.32)	0.02	0.15	0.00	0.02	(-0.27 0.31)

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Table A.3.52 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
<i>Maternal attachment</i>										
Condon scale score (age 1)	0.05	0.07	0.00	0.05	(-0.08 0.18)	0.05	0.06	0.00	0.05	(-0.07 0.17)
<i>Child-parent relationship</i>										
Condon scale score (age 3)	-0.82	0.07	0.00	-0.82	(-0.96 -0.68)	-0.90	0.07	0.00	-0.90	(-1.03 -0.77)
<i>Maltreatment of children</i>										
Straus's conflict tactics scale (age 3)	0.16	0.09	0.00	0.16	(-0.01 0.33)	0.19	0.08	0.00	0.19	(0.03 0.35)
constant	1.53	0.84	0.01	1.53	(-0.11 3.19)	1.59	0.83	0.01	1.60	(-0.04 3.23)
σ_{τ}	1.80	0.05	0.00	1.80	(1.71 1.90)	1.76	0.05	0.00	1.76	(1.66 1.85)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.53: Bayesian Estimates: SDQ ES/ CP and SDQ HA (Eq. 2, TP, Age 5)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.24	0.07	0.00	-0.24	(-0.38 -0.10)	-0.19	0.07	0.00	-0.19	(-0.33 -0.06)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.26	0.07	0.00	0.26	(0.13 0.39)	0.27	0.07	0.00	0.27	(0.14 0.40)	
=1 if NVQ level 3	0.26	0.08	0.00	0.26	(0.11 0.41)	0.25	0.07	0.00	0.25	(0.11 0.40)	
=1 if overseas qual. only	0.08	0.22	0.00	0.08	(-0.36 0.51)	0.04	0.21	0.00	0.04	(-0.38 0.46)	
=1 if none of these	0.28	0.13	0.00	0.28	(0.02 0.53)	0.29	0.13	0.00	0.29	(0.03 0.54)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	0.10	0.10	0.00	0.10	(-0.10 0.30)	0.07	0.10	0.00	0.07	(-0.13 0.27)	
=1 if 25 to 29 years	0.05	0.08	0.00	0.05	(-0.11 0.20)	0.04	0.08	0.00	0.04	(-0.12 0.20)	
=1 if 30 to 34 years	0.02	0.07	0.00	0.02	(-0.13 0.16)	0.02	0.07	0.00	0.02	(-0.12 0.16)	
<i>Child demography</i>											
=1 if female	-0.44	0.05	0.00	-0.44	(-0.55 -0.34)	-0.44	0.05	0.00	-0.44	(-0.54 -0.34)	
age (years)	0.31	0.13	0.00	0.31	(0.06 0.56)	0.32	0.12	0.00	0.32	(0.08 0.56)	
=1 if ethnicity is non-white	0.12	0.12	0.00	0.12	(-0.12 0.36)	0.14	0.12	0.00	0.14	(-0.10 0.38)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.40	0.15	0.00	0.40	(0.12 0.69)	0.44	0.14	0.00	0.44	(0.16 0.71)	
<i>Size of household</i>											
log of hh size incl. cm	-0.27	0.15	0.00	-0.27	(-0.56 0.03)	-0.46	0.14	0.00	-0.46	(-0.74 -0.18)	
<i>Number of older siblings</i>											
=1 if no older siblings	-0.06	0.07	0.00	-0.07	(-0.19 0.06)	-0.09	0.06	0.00	-0.08	(-0.21 0.04)	
=1 if two or more older siblings	-0.02	0.08	0.00	-0.02	(-0.19 0.14)	0.03	0.08	0.00	0.03	(-0.14 0.19)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.95	0.28	0.00	0.95	(0.41 1.50)	0.93	0.26	0.00	0.92	(0.40 1.44)	
<i>Country where interview took place</i>											
=1 if wales	0.11	0.28	0.00	0.11	(-0.44 0.66)	0.23	0.27	0.00	0.24	(-0.30 0.76)	
=1 if nireland	-0.22	0.48	0.00	-0.22	(-1.17 0.74)	-0.26	0.48	0.00	-0.27	(-1.20 0.66)	
=1 if scotland	0.01	0.34	0.00	0.01	(-0.65 0.68)	-0.04	0.33	0.00	-0.04	(-0.67 0.60)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.19	0.06	0.00	-0.19	(-0.32 -0.07)	-0.20	0.06	0.00	-0.20	(-0.31 -0.08)	
<i>Childcare</i>											
=1 if formal childcare	-0.06	0.07	0.00	-0.06	(-0.19 0.07)	-0.06	0.06	0.00	-0.06	(-0.19 0.06)	
=1 if informal/ other childcare	-0.00	0.12	0.00	-0.00	(-0.25 0.24)	-0.03	0.12	0.00	-0.03	(-0.26 0.20)	
=1 if grandparent care	0.08	0.07	0.00	0.08	(-0.06 0.22)	0.03	0.06	0.00	0.03	(-0.10 0.16)	
<i>Maternal employment (t - 1)</i>											
=1 if working part-time	0.01	0.06	0.00	0.01	(-0.10 0.12)	-0.03	0.05	0.00	-0.03	(-0.14 0.08)	
=1 if working full-time	0.01	0.11	0.00	0.01	(-0.20 0.23)	-0.02	0.10	0.00	-0.02	(-0.22 0.19)	
<i>How long mother breastfed child</i>											
=1 if at least 6 months	-0.19	0.07	0.00	-0.19	(-0.32 -0.06)	-0.18	0.07	0.00	-0.18	(-0.31 -0.05)	
<i>If child is naughty...</i>											

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Table A.3.53 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.06	0.09	0.00	0.06	(-0.12 0.24)	0.03	0.09	0.00	0.03	(-0.14 0.20)
=1 if mother tells child off	0.12	0.08	0.00	0.12	(-0.04 0.27)	0.01	0.08	0.00	0.02	(-0.14 0.16)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.18	0.07	0.00	-0.18	(-0.31 -0.05)	-0.19	0.06	0.00	-0.19	(-0.31 -0.06)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.06	0.07	0.00	0.06	(-0.08 0.20)	0.04	0.07	0.00	0.04	(-0.09 0.17)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.46	0.13	0.00	-0.46	(-0.70 -0.22)	-0.52	0.12	0.00	-0.52	(-0.75 -0.28)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.04	0.06	0.00	0.04	(-0.07 0.16)	0.04	0.06	0.00	0.04	(-0.08 0.15)
<i>Maternal mental health</i>										
=1 if high distress	0.17	0.18	0.00	0.17	(-0.18 0.52)	0.15	0.17	0.00	0.15	(-0.18 0.48)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.02	0.08	0.00	0.02	(-0.13 0.18)	0.03	0.08	0.00	0.03	(-0.12 0.18)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.03	0.07	0.00	-0.03	(-0.17 0.10)	-0.03	0.06	0.00	-0.03	(-0.15 0.10)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.05	0.11	0.00	0.05	(-0.16 0.26)	0.07	0.10	0.00	0.07	(-0.13 0.28)
=1 if rented (housing association or private)/ other	0.06	0.09	0.00	0.06	(-0.11 0.24)	0.08	0.09	0.00	0.08	(-0.09 0.25)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	0.12	0.17	0.00	0.12	(-0.21 0.46)	0.15	0.16	0.00	0.15	(-0.17 0.47)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.09	0.12	0.00	0.09	(-0.13 0.33)	0.09	0.11	0.00	0.10	(-0.13 0.32)
=1 if managerial/ professional occupation	-0.18	0.07	0.00	-0.18	(-0.33 -0.04)	-0.18	0.07	0.00	-0.18	(-0.32 -0.05)
=1 if technical, semi-routine or routine occupation	0.03	0.06	0.00	0.03	(-0.09 0.15)	0.04	0.06	0.00	0.04	(-0.09 0.16)
=1 if can't remember or father died	0.18	0.12	0.00	0.18	(-0.06 0.42)	0.18	0.12	0.00	0.18	(-0.06 0.41)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	0.32	0.12	0.00	0.32	(0.10 0.55)	0.35	0.11	0.00	0.35	(0.14 0.56)
Hyperactivity Risk Factors										
<i>Gestational age</i>										
=1 if gestational age < 37 weeks	0.05	0.12	0.00	0.05	(-0.19 0.30)	-0.01	0.12	0.00	-0.01	(-0.24 0.21)
<i>Maternal mental health (age 1)</i>										
=1 if increased risk of depression/ anxiety	0.15	0.08	0.00	0.15	(-0.01 0.31)	0.12	0.08	0.00	0.12	(-0.03 0.27)
<i>Alcohol consumption during pregnancy</i>										
=1 if 1-2 times per month	0.09	0.09	0.00	0.09	(-0.08 0.25)	-0.02	0.08	0.00	-0.02	(-0.17 0.14)
=1 if at least once a week	-0.04	0.08	0.00	-0.04	(-0.20 0.13)	-0.06	0.08	0.00	-0.06	(-0.22 0.10)
<i>Smoking during pregnancy</i>										
=1 if mother smoked during pregnancy	0.09	0.08	0.00	0.09	(-0.07 0.25)	0.09	0.08	0.00	0.09	(-0.07 0.25)
<i>Smoking in the same room as child</i>										
=1 if anyone smokes in same room as child (age 1)	-0.00	0.09	0.00	-0.00	(-0.19 0.18)	0.04	0.09	0.00	0.04	(-0.13 0.22)
=1 if anyone smokes in same room as child (age 3)	0.12	0.08	0.00	0.12	(-0.05 0.28)	0.15	0.08	0.00	0.15	(-0.00 0.31)

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Table A.3.53 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
<i>Maternal attachment</i>										
Condon scale score (age 1)	-0.12	0.03	0.00	-0.12	(-0.17 -0.06)	-0.09	0.03	0.00	-0.09	(-0.15 -0.04)
<i>Child-parent relationship</i>										
Condon scale score (age 3)	-0.81	0.03	0.00	-0.81	(-0.86 -0.75)	-0.84	0.03	0.00	-0.84	(-0.89 -0.78)
<i>Maltreatment of children</i>										
Straus's conflict tactics scale (age 3)	0.23	0.04	0.00	0.23	(0.16 0.30)	0.29	0.03	0.00	0.29	(0.23 0.36)
constant	4.21	0.61	0.01	4.21	(3.02 5.42)	4.35	0.60	0.01	4.35	(3.18 5.55)
σ_{τ}	1.68	0.02	0.00	1.68	(1.64 1.72)	1.65	0.02	0.00	1.65	(1.61 1.69)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.54: Bayesian Estimates: SDQ PR/ PB and SDQ HA (Eq. 1, LP, Age 5)

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)										
hyperactivity/inattention	0.10	0.03	0.00	0.10	(0.05 0.15)	-0.19	0.02	0.00	-0.19	(-0.23 -0.14)
Standard Background Controls										
<i>Income</i>										
log of permanent family income (weekly, imp.)	-0.10	0.08	0.00	-0.10	(-0.26 0.06)	-0.09	0.08	0.00	-0.09	(-0.25 0.08)
<i>Maternal education</i>										
=1 if NVQ level 1 or 2	0.23	0.08	0.00	0.23	(0.07 0.38)	-0.06	0.08	0.00	-0.06	(-0.22 0.10)
=1 if NVQ level 3	0.08	0.09	0.00	0.08	(-0.10 0.26)	0.09	0.10	0.00	0.09	(-0.10 0.27)
=1 if overseas qual. only	0.00	0.19	0.00	0.00	(-0.38 0.38)	-0.04	0.20	0.00	-0.04	(-0.43 0.33)
=1 if none of these	0.09	0.12	0.00	0.09	(-0.13 0.32)	-0.18	0.12	0.00	-0.18	(-0.41 0.06)
<i>Mother's age at birth</i>										
=1 if less than 25 years	-0.08	0.12	0.00	-0.08	(-0.32 0.17)	-0.02	0.12	0.00	-0.02	(-0.26 0.22)
=1 if 25 to 29 years	-0.05	0.11	0.00	-0.04	(-0.26 0.17)	0.07	0.11	0.00	0.07	(-0.15 0.29)
=1 if 30 to 34 years	-0.08	0.11	0.00	-0.08	(-0.30 0.14)	-0.02	0.12	0.00	-0.02	(-0.25 0.20)
<i>Child demography</i>										
=1 if female	-0.04	0.06	0.00	-0.04	(-0.17 0.08)	0.06	0.06	0.00	0.06	(-0.07 0.18)
age (years)	0.04	0.10	0.00	0.05	(-0.16 0.25)	0.12	0.11	0.00	0.11	(-0.09 0.33)
=1 if ethnicity is non-white	0.09	0.11	0.00	0.09	(-0.13 0.31)	0.17	0.11	0.00	0.17	(-0.05 0.40)
<i>Child's health endowment</i>										
=1 if birth weight < 2500g	0.10	0.12	0.00	0.10	(-0.13 0.33)	0.28	0.12	0.00	0.29	(0.05 0.52)
<i>Size of household</i>										
log of hh size incl. cm	-0.11	0.11	0.00	-0.11	(-0.33 0.11)	-0.07	0.11	0.00	-0.07	(-0.30 0.15)
<i>Number of older siblings</i>										
=1 if no older siblings	0.04	0.08	0.00	0.04	(-0.10 0.19)	0.09	0.08	0.00	0.09	(-0.06 0.25)
=1 if two or more older siblings	0.04	0.10	0.00	0.04	(-0.14 0.23)	-0.05	0.10	0.00	-0.06	(-0.24 0.14)
<i>Respondent's relationship to child</i>										
=1 if natural mother of child	0.16	0.20	0.00	0.16	(-0.24 0.55)	0.23	0.20	0.00	0.23	(-0.17 0.63)
<i>Country where interview took place</i>										
=1 if wales	-0.20	0.35	0.00	-0.20	(-0.87 0.49)	-0.01	0.35	0.00	-0.01	(-0.69 0.69)
=1 if nireland	0.34	0.44	0.00	0.35	(-0.54 1.19)	-0.39	0.44	0.00	-0.39	(-1.24 0.48)
=1 if scotland	0.73	0.37	0.00	0.73	(-0.01 1.46)	-0.50	0.37	0.00	-0.50	(-1.23 0.23)
Time and Care										
<i>Time mother spents with child</i>										
=1 if at least just enough	-0.04	0.07	0.00	-0.04	(-0.17 0.09)	-0.01	0.07	0.00	-0.01	(-0.14 0.12)
<i>Childcare</i>										
=1 if formal childcare	0.10	0.13	0.00	0.10	(-0.16 0.36)	-0.14	0.13	0.00	-0.14	(-0.40 0.12)
=1 if informal/ other childcare	-0.19	0.10	0.00	-0.19	(-0.39 0.01)	0.07	0.10	0.00	0.07	(-0.13 0.27)
=1 if grandparent care	0.03	0.07	0.00	0.03	(-0.11 0.16)	0.02	0.07	0.00	0.02	(-0.12 0.16)
<i>Maternal employment ($t - 1$)</i>										
=1 if working part-time	-0.01	0.07	0.00	-0.01	(-0.16 0.13)	-0.05	0.07	0.00	-0.05	(-0.19 0.09)
=1 if working full-time	0.02	0.15	0.00	0.02	(-0.28 0.32)	-0.21	0.15	0.00	-0.21	(-0.50 0.08)
<i>How long mother breastfed child</i>										

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Table A.3.54 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.10	0.10	0.00	0.10	(-0.10 0.30)	-0.15	0.10	0.00	-0.15	(-0.35 0.05)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.17	0.21	0.00	0.16	(-0.25 0.59)	0.05	0.21	0.00	0.05	(-0.37 0.46)
=1 if mother tells child off	-0.03	0.06	0.00	-0.03	(-0.15 0.08)	-0.10	0.06	0.00	-0.10	(-0.22 0.02)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.06	0.09	0.00	-0.06	(-0.23 0.12)	0.30	0.09	0.00	0.30	(0.12 0.48)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	-0.07	0.07	0.00	-0.07	(-0.21 0.08)	0.05	0.07	0.00	0.05	(-0.10 0.19)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.18	0.13	0.00	-0.18	(-0.43 0.07)	0.20	0.13	0.00	0.20	(-0.05 0.46)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.15	0.07	0.00	0.15	(0.02 0.28)	0.05	0.07	0.00	0.05	(-0.08 0.19)
<i>Maternal mental health</i>										
=1 if high distress	0.37	0.13	0.00	0.38	(0.13 0.62)	-0.03	0.13	0.00	-0.02	(-0.27 0.22)
<i>Does mother currently smoke</i>										
=1 if currently smokes	-0.03	0.06	0.00	-0.03	(-0.15 0.09)	0.09	0.06	0.00	0.09	(-0.03 0.21)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.10	0.09	0.00	-0.10	(-0.27 0.08)	0.08	0.09	0.00	0.08	(-0.10 0.25)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.21	0.10	0.00	0.21	(0.02 0.40)	-0.04	0.10	0.00	-0.04	(-0.23 0.15)
=1 if rented (housing association or private)/ other	0.14	0.08	0.00	0.14	(-0.02 0.31)	0.06	0.09	0.00	0.05	(-0.11 0.22)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.28	0.12	0.00	-0.29	(-0.52 -0.05)	0.27	0.12	0.00	0.27	(0.03 0.51)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.21	0.10	0.00	0.21	(0.01 0.42)	0.09	0.11	0.00	0.09	(-0.12 0.31)
=1 if managerial/ professional occupation	0.04	0.09	0.00	0.04	(-0.14 0.23)	-0.03	0.10	0.00	-0.03	(-0.21 0.16)
=1 if technical, semi-routine or routine occupation	0.03	0.07	0.00	0.03	(-0.11 0.17)	0.12	0.07	0.00	0.11	(-0.03 0.26)
=1 if can't remember or father died	0.23	0.11	0.00	0.23	(0.02 0.45)	0.15	0.11	0.00	0.15	(-0.07 0.38)
constant	0.12	0.65	0.01	0.12	(-1.14 1.39)	-0.25	0.65	0.01	-0.25	(-1.52 1.05)
σ_ϵ	0.90	0.04	0.00	0.91	(0.81 0.97)	0.84	0.05	0.00	0.84	(0.74 0.92)
σ_ζ	0.30	0.12	0.01	0.30	(0.07 0.53)	0.49	0.09	0.00	0.49	(0.30 0.65)
$\rho_{\zeta\xi}$	-0.76	0.24	0.01	-0.83	(-0.99 -0.13)	0.91	0.09	0.00	0.94	(0.69 1.00)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.55: Bayesian Estimates: SDQ PR/ PB and SDQ HA (Eq. 1, TP, Age 5)

	SDQ PR					SDQ PB					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
hyperactivity/inattention	0.18	0.01	0.00	0.18	(0.15 0.21)	-0.22	0.01	0.00	-0.22	(-0.25 -0.20)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.14	0.04	0.00	-0.14	(-0.22 -0.07)	0.00	0.04	0.00	0.01	(-0.07 0.08)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	-0.04	0.03	0.00	-0.03	(-0.10 0.03)	-0.01	0.03	0.00	-0.01	(-0.07 0.06)	
=1 if NVQ level 3	-0.03	0.04	0.00	-0.03	(-0.11 0.04)	0.05	0.04	0.00	0.05	(-0.03 0.13)	
=1 if overseas qual. only	0.30	0.12	0.00	0.30	(0.07 0.53)	-0.06	0.12	0.00	-0.06	(-0.29 0.18)	
=1 if none of these	0.11	0.07	0.00	0.11	(-0.03 0.25)	0.15	0.07	0.00	0.15	(0.02 0.29)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	0.02	0.05	0.00	0.02	(-0.08 0.13)	0.12	0.05	0.00	0.12	(0.01 0.22)	
=1 if 25 to 29 years	-0.01	0.04	0.00	-0.01	(-0.09 0.07)	0.14	0.04	0.00	0.14	(0.06 0.22)	
=1 if 30 to 34 years	-0.05	0.04	0.00	-0.05	(-0.12 0.02)	0.08	0.04	0.00	0.08	(0.00 0.15)	
<i>Child demography</i>											
=1 if female	0.02	0.03	0.00	0.02	(-0.04 0.07)	0.14	0.03	0.00	0.14	(0.09 0.19)	
age (years)	-0.11	0.05	0.00	-0.11	(-0.21 -0.01)	0.24	0.05	0.00	0.24	(0.14 0.34)	
=1 if ethnicity is non-white	0.19	0.06	0.00	0.19	(0.07 0.31)	0.12	0.06	0.00	0.12	(0.00 0.25)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.04	0.06	0.00	0.04	(-0.09 0.17)	0.09	0.06	0.00	0.09	(-0.03 0.22)	
<i>Size of household</i>											
log of hh size incl. cm	0.02	0.08	0.00	0.02	(-0.14 0.18)	-0.15	0.08	0.00	-0.15	(-0.31 0.01)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.15	0.03	0.00	0.15	(0.09 0.21)	0.08	0.03	0.00	0.08	(0.02 0.14)	
=1 if two or more older siblings	0.10	0.04	0.00	0.10	(0.02 0.19)	-0.10	0.04	0.00	-0.10	(-0.19 -0.02)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	-0.12	0.11	0.00	-0.12	(-0.34 0.10)	0.14	0.11	0.00	0.14	(-0.07 0.35)	
<i>Country where interview took place</i>											
=1 if wales	-0.04	0.13	0.00	-0.04	(-0.29 0.22)	-0.00	0.13	0.00	-0.00	(-0.27 0.25)	
=1 if nireland	-0.14	0.29	0.00	-0.14	(-0.71 0.44)	0.00	0.29	0.00	0.00	(-0.57 0.58)	
=1 if scotland	0.16	0.16	0.00	0.16	(-0.14 0.47)	-0.19	0.16	0.00	-0.19	(-0.50 0.13)	
Time and Care											
<i>Time mother spents with child</i>											
=1 if at least just enough	-0.10	0.03	0.00	-0.10	(-0.15 -0.04)	0.00	0.03	0.00	0.00	(-0.05 0.06)	
<i>Childcare</i>											
=1 if formal childcare	0.00	0.06	0.00	0.00	(-0.11 0.11)	-0.03	0.06	0.00	-0.03	(-0.14 0.08)	
=1 if informal/ other childcare	0.00	0.05	0.00	0.00	(-0.10 0.10)	0.02	0.05	0.00	0.02	(-0.08 0.12)	
=1 if grandparent care	0.03	0.03	0.00	0.03	(-0.03 0.09)	0.01	0.03	0.00	0.01	(-0.05 0.07)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.03	0.03	0.00	-0.03	(-0.09 0.02)	0.00	0.03	0.00	0.00	(-0.06 0.06)	
=1 if working full-time	-0.05	0.06	0.00	-0.05	(-0.17 0.07)	0.01	0.06	0.00	0.01	(-0.11 0.12)	
<i>How long mother breastfed child</i>											

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Table A.3.55 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.03	0.03	0.00	0.03	(-0.04 0.10)	-0.02	0.03	0.00	-0.02	(-0.09 0.05)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.35	0.11	0.00	0.35	(0.13 0.56)	-0.33	0.11	0.00	-0.33	(-0.55 -0.12)
=1 if mother tells child off	-0.08	0.03	0.00	-0.08	(-0.13 -0.02)	-0.17	0.03	0.00	-0.17	(-0.22 -0.12)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.15	0.05	0.00	-0.15	(-0.25 -0.06)	0.07	0.05	0.00	0.07	(-0.02 0.16)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.09	0.04	0.00	0.09	(0.02 0.16)	-0.09	0.04	0.00	-0.09	(-0.16 -0.02)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.06	0.06	0.00	-0.06	(-0.18 0.07)	0.05	0.06	0.00	0.05	(-0.08 0.17)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.12	0.03	0.00	0.12	(0.06 0.17)	0.07	0.03	0.00	0.07	(0.01 0.13)
<i>Maternal mental health</i>										
=1 if high distress	0.15	0.09	0.00	0.15	(-0.03 0.32)	-0.28	0.09	0.00	-0.28	(-0.45 -0.11)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.00	0.03	0.00	0.00	(-0.07 0.07)	0.04	0.03	0.00	0.04	(-0.02 0.11)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.00	0.03	0.00	-0.00	(-0.07 0.06)	-0.04	0.03	0.00	-0.04	(-0.10 0.02)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.03	0.06	0.00	0.03	(-0.08 0.14)	-0.07	0.06	0.00	-0.07	(-0.19 0.04)
=1 if rented (housing association or private)/ other	-0.03	0.05	0.00	-0.03	(-0.12 0.06)	0.02	0.05	0.00	0.02	(-0.07 0.11)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	0.02	0.07	0.00	0.02	(-0.12 0.16)	0.06	0.07	0.00	0.06	(-0.08 0.19)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.06	0.06	0.00	0.06	(-0.06 0.18)	-0.02	0.06	0.00	-0.02	(-0.14 0.10)
=1 if managerial/ professional occupation	-0.04	0.04	0.00	-0.04	(-0.12 0.03)	0.02	0.04	0.00	0.02	(-0.05 0.09)
=1 if technical, semi-routine or routine occupation	-0.02	0.03	0.00	-0.02	(-0.09 0.04)	0.05	0.03	0.00	0.05	(-0.01 0.12)
=1 if can't remember or father died	-0.03	0.06	0.00	-0.03	(-0.15 0.09)	0.07	0.06	0.00	0.07	(-0.05 0.19)
constant	1.07	0.39	0.00	1.07	(0.31 1.82)	-0.67	0.39	0.00	-0.67	(-1.43 0.09)
σ_ϵ	0.80	0.03	0.00	0.80	(0.72 0.86)	0.72	0.04	0.00	0.72	(0.64 0.78)
σ_ζ	0.59	0.06	0.00	0.59	(0.48 0.70)	0.70	0.05	0.00	0.70	(0.61 0.79)
$\rho_{\zeta\xi}$	-0.95	0.05	0.00	-0.97	(-1.00 -0.83)	0.98	0.02	0.00	0.98	(0.92 1.00)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.56: Bayesian Estimates: SDQ PR/ PB and SDQ HA (Eq. 2, LP, Age 5)

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Standard Background Controls										
<i>Income</i>										
log of permanent family income (weekly, imp.)	0.27	0.16	0.00	0.27	(-0.04 0.58)	0.30	0.15	0.00	0.30	(-0.01 0.59)
<i>Maternal education</i>										
=1 if NVQ level 1 or 2	0.31	0.17	0.00	0.31	(-0.03 0.65)	0.32	0.17	0.00	0.32	(-0.01 0.66)
=1 if NVQ level 3	0.39	0.20	0.00	0.39	(-0.02 0.78)	0.41	0.20	0.00	0.41	(0.02 0.80)
=1 if overseas qual. only	0.69	0.41	0.00	0.70	(-0.11 1.49)	0.73	0.41	0.00	0.73	(-0.09 1.54)
=1 if none of these	0.20	0.24	0.00	0.20	(-0.29 0.67)	0.18	0.24	0.00	0.19	(-0.28 0.65)
<i>Mother's age at birth</i>										
=1 if less than 25 years	0.67	0.25	0.00	0.67	(0.19 1.17)	0.67	0.24	0.00	0.67	(0.21 1.16)
=1 if 25 to 29 years	0.42	0.23	0.00	0.42	(-0.03 0.87)	0.41	0.22	0.00	0.41	(-0.02 0.85)
=1 if 30 to 34 years	0.35	0.24	0.00	0.35	(-0.12 0.81)	0.34	0.23	0.00	0.35	(-0.11 0.80)
<i>Child demography</i>										
=1 if female	-0.59	0.12	0.00	-0.59	(-0.83 -0.34)	-0.58	0.12	0.00	-0.58	(-0.82 -0.34)
age (years)	0.06	0.24	0.00	0.06	(-0.42 0.53)	0.08	0.24	0.00	0.08	(-0.38 0.55)
=1 if ethnicity is non-white	0.28	0.24	0.00	0.28	(-0.18 0.74)	0.25	0.23	0.00	0.25	(-0.21 0.71)
<i>Child's health endowment</i>										
=1 if birth weight < 2500g	0.53	0.28	0.00	0.52	(-0.02 1.08)	0.52	0.28	0.00	0.51	(-0.04 1.08)
<i>Size of household</i>										
log of hh size incl. cm	-0.18	0.22	0.00	-0.18	(-0.62 0.26)	-0.17	0.22	0.00	-0.17	(-0.60 0.27)
<i>Number of older siblings</i>										
=1 if no older siblings	-0.07	0.16	0.00	-0.06	(-0.38 0.25)	-0.06	0.16	0.00	-0.06	(-0.37 0.24)
=1 if two or more older siblings	0.29	0.20	0.00	0.29	(-0.11 0.68)	0.30	0.20	0.00	0.30	(-0.09 0.70)
<i>Respondent's relationship to child</i>										
=1 if natural mother of child	0.48	0.47	0.00	0.49	(-0.43 1.40)	0.45	0.46	0.00	0.44	(-0.46 1.37)
<i>Country where interview took place</i>										
=1 if wales	-0.53	0.53	0.01	-0.52	(-1.56 0.49)	-0.53	0.52	0.01	-0.54	(-1.54 0.49)
=1 if nireland	0.13	0.57	0.01	0.13	(-0.98 1.25)	0.15	0.56	0.01	0.15	(-0.95 1.25)
=1 if scotland	-0.18	0.52	0.01	-0.18	(-1.21 0.83)	-0.20	0.52	0.01	-0.19	(-1.20 0.81)
Time and Care										
<i>Time mother spends with child</i>										
=1 if at least just enough	-0.03	0.17	0.00	-0.03	(-0.35 0.30)	-0.03	0.16	0.00	-0.03	(-0.35 0.27)
<i>Childcare</i>										
=1 if formal childcare	0.24	0.18	0.00	0.24	(-0.11 0.58)	0.28	0.17	0.00	0.28	(-0.07 0.62)
=1 if informal/ other childcare	-0.04	0.28	0.00	-0.04	(-0.59 0.50)	0.02	0.28	0.00	0.02	(-0.53 0.57)
=1 if grandparent care	0.02	0.17	0.00	0.02	(-0.31 0.34)	-0.00	0.16	0.00	-0.00	(-0.32 0.31)
<i>Maternal employment (t - 1)</i>										
=1 if working part-time	-0.09	0.15	0.00	-0.09	(-0.39 0.21)	-0.08	0.15	0.00	-0.08	(-0.37 0.22)
=1 if working full-time	0.13	0.31	0.00	0.13	(-0.48 0.75)	0.17	0.31	0.00	0.17	(-0.44 0.78)
<i>How long mother breastfed child</i>										
=1 if at least 6 months	-0.28	0.21	0.00	-0.28	(-0.69 0.14)	-0.28	0.21	0.00	-0.27	(-0.69 0.13)
<i>If child is naughty...</i>										

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Table A.3.56 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.46	0.22	0.00	0.47	(0.03 0.89)	0.49	0.21	0.00	0.49	(0.07 0.92)
=1 if mother tells child off	0.25	0.21	0.00	0.25	(-0.15 0.66)	0.31	0.20	0.00	0.31	(-0.08 0.71)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.11	0.15	0.00	-0.11	(-0.40 0.19)	-0.09	0.15	0.00	-0.09	(-0.38 0.21)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.18	0.16	0.00	0.19	(-0.13 0.50)	0.15	0.16	0.00	0.15	(-0.16 0.46)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.23	0.24	0.00	-0.24	(-0.70 0.22)	-0.26	0.23	0.00	-0.26	(-0.72 0.20)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	-0.14	0.15	0.00	-0.14	(-0.42 0.15)	-0.08	0.14	0.00	-0.08	(-0.35 0.20)
<i>Maternal mental health</i>										
=1 if high distress	0.48	0.25	0.00	0.48	(-0.02 0.97)	0.43	0.25	0.00	0.43	(-0.06 0.92)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.38	0.16	0.00	0.38	(0.08 0.69)	0.35	0.15	0.00	0.35	(0.05 0.65)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.35	0.20	0.00	-0.35	(-0.74 0.05)	-0.36	0.20	0.00	-0.36	(-0.75 0.02)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.08	0.19	0.00	0.08	(-0.30 0.47)	0.09	0.19	0.00	0.08	(-0.29 0.46)
=1 if rented (housing association or private)/ other	0.30	0.17	0.00	0.30	(-0.04 0.64)	0.28	0.17	0.00	0.27	(-0.06 0.61)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.36	0.25	0.00	-0.36	(-0.84 0.14)	-0.29	0.25	0.00	-0.29	(-0.76 0.20)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.35	0.22	0.00	0.35	(-0.09 0.77)	0.34	0.22	0.00	0.34	(-0.09 0.76)
=1 if managerial/ professional occupation	-0.02	0.20	0.00	-0.02	(-0.42 0.37)	-0.04	0.20	0.00	-0.04	(-0.42 0.36)
=1 if technical, semi-routine or routine occupation	0.23	0.15	0.00	0.23	(-0.08 0.53)	0.22	0.15	0.00	0.22	(-0.08 0.52)
=1 if can't remember or father died	0.38	0.23	0.00	0.38	(-0.06 0.83)	0.37	0.23	0.00	0.37	(-0.09 0.81)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	-0.14	0.22	0.00	-0.14	(-0.57 0.28)	-0.13	0.21	0.00	-0.13	(-0.54 0.28)
Hyperactivity Risk Factors										
<i>Gestational age</i>										
=1 if gestational age < 37 weeks	-0.05	0.27	0.00	-0.05	(-0.58 0.47)	-0.04	0.26	0.00	-0.05	(-0.55 0.47)
<i>Maternal mental health (age 1)</i>										
=1 if increased risk of depression/ anxiety	0.13	0.17	0.00	0.13	(-0.21 0.46)	0.08	0.17	0.00	0.07	(-0.25 0.41)
<i>Alcohol consumption during pregnancy</i>										
=1 if 1-2 times per month	0.23	0.24	0.00	0.23	(-0.24 0.71)	0.18	0.23	0.00	0.18	(-0.28 0.63)
=1 if at least once a week	0.27	0.22	0.00	0.27	(-0.16 0.70)	0.37	0.21	0.00	0.37	(-0.05 0.79)
<i>Smoking during pregnancy</i>										
=1 if mother smoked during pregnancy	-0.37	0.16	0.00	-0.37	(-0.69 -0.06)	-0.33	0.16	0.00	-0.33	(-0.63 -0.02)
<i>Smoking in the same room as child</i>										
=1 if anyone smokes in same room as child (age 1)	0.28	0.17	0.00	0.28	(-0.07 0.62)	0.27	0.17	0.00	0.27	(-0.06 0.59)
=1 if anyone smokes in same room as child (age 3)	0.01	0.16	0.00	0.01	(-0.30 0.32)	-0.03	0.16	0.00	-0.03	(-0.34 0.28)

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Table A.3.56 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
<i>Maternal attachment</i>										
Condon scale score (age 1)	0.05	0.07	0.00	0.05	(-0.08 0.18)	0.06	0.06	0.00	0.06	(-0.07 0.18)
<i>Child-parent relationship</i>										
Condon scale score (age 3)	-0.82	0.07	0.00	-0.82	(-0.96 -0.69)	-0.85	0.07	0.00	-0.85	(-0.98 -0.72)
<i>Maltreatment of children</i>										
Straus's conflict tactics scale (age 3)	0.15	0.08	0.00	0.16	(-0.01 0.32)	0.14	0.09	0.00	0.14	(-0.02 0.31)
constant	1.50	0.85	0.01	1.50	(-0.17 3.19)	1.52	0.83	0.01	1.51	(-0.11 3.15)
σ_τ	1.80	0.05	0.00	1.80	(1.71 1.90)	1.79	0.05	0.00	1.79	(1.70 1.89)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.57: Bayesian Estimates: SDQ PR/ PB and SDQ HA (Eq. 2, TP, Age 5)

	SDQ PR					SDQ PB					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.24	0.07	0.00	-0.24	(-0.38 -0.10)	-0.19	0.07	0.00	-0.19	(-0.33 -0.06)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.27	0.07	0.00	0.27	(0.14 0.40)	0.28	0.07	0.00	0.28	(0.14 0.40)	
=1 if NVQ level 3	0.26	0.08	0.00	0.26	(0.11 0.41)	0.26	0.07	0.00	0.26	(0.12 0.41)	
=1 if overseas qual. only	0.08	0.22	0.00	0.08	(-0.36 0.51)	0.07	0.22	0.00	0.07	(-0.36 0.50)	
=1 if none of these	0.30	0.13	0.00	0.30	(0.04 0.56)	0.29	0.13	0.00	0.29	(0.03 0.55)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	0.09	0.10	0.00	0.09	(-0.11 0.29)	0.10	0.10	0.00	0.10	(-0.10 0.30)	
=1 if 25 to 29 years	0.04	0.08	0.00	0.04	(-0.12 0.20)	0.04	0.08	0.00	0.04	(-0.12 0.20)	
=1 if 30 to 34 years	0.02	0.08	0.00	0.02	(-0.13 0.16)	0.02	0.07	0.00	0.02	(-0.13 0.16)	
<i>Child demography</i>											
=1 if female	-0.44	0.05	0.00	-0.44	(-0.54 -0.34)	-0.44	0.05	0.00	-0.44	(-0.54 -0.34)	
age (years)	0.30	0.13	0.00	0.30	(0.04 0.55)	0.27	0.13	0.00	0.27	(0.02 0.51)	
=1 if ethnicity is non-white	0.13	0.12	0.00	0.13	(-0.11 0.37)	0.14	0.12	0.00	0.14	(-0.10 0.38)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.36	0.14	0.00	0.36	(0.08 0.64)	0.41	0.14	0.00	0.42	(0.13 0.69)	
<i>Size of household</i>											
log of hh size incl. cm	-0.35	0.15	0.00	-0.35	(-0.65 -0.06)	-0.30	0.15	0.00	-0.30	(-0.59 0.00)	
<i>Number of older siblings</i>											
=1 if no older siblings	-0.07	0.07	0.00	-0.07	(-0.20 0.05)	-0.06	0.07	0.00	-0.06	(-0.19 0.07)	
=1 if two or more older siblings	-0.01	0.08	0.00	-0.00	(-0.17 0.16)	-0.02	0.08	0.00	-0.02	(-0.18 0.15)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.91	0.28	0.00	0.92	(0.36 1.46)	0.98	0.27	0.00	0.98	(0.45 1.51)	
<i>Country where interview took place</i>											
=1 if wales	0.07	0.28	0.00	0.07	(-0.49 0.62)	0.16	0.28	0.00	0.16	(-0.38 0.71)	
=1 if nireland	-0.27	0.49	0.00	-0.27	(-1.22 0.70)	-0.24	0.48	0.00	-0.23	(-1.19 0.69)	
=1 if scotland	0.06	0.34	0.00	0.06	(-0.61 0.72)	0.01	0.33	0.00	0.01	(-0.65 0.66)	
Time and Care											
<i>Time mother spents with child</i>											
=1 if at least just enough	-0.16	0.06	0.00	-0.16	(-0.28 -0.04)	-0.20	0.06	0.00	-0.21	(-0.32 -0.08)	
<i>Childcare</i>											
=1 if formal childcare	-0.08	0.07	0.00	-0.08	(-0.22 0.05)	-0.05	0.06	0.00	-0.05	(-0.17 0.08)	
=1 if informal/ other childcare	-0.02	0.13	0.00	-0.02	(-0.26 0.23)	0.05	0.12	0.00	0.05	(-0.18 0.29)	
=1 if grandparent care	0.11	0.07	0.00	0.11	(-0.02 0.25)	0.07	0.07	0.00	0.07	(-0.06 0.21)	
<i>Maternal employment (t - 1)</i>											
=1 if working part-time	0.01	0.06	0.00	0.01	(-0.10 0.12)	-0.02	0.06	0.00	-0.03	(-0.13 0.09)	
=1 if working full-time	0.04	0.11	0.00	0.04	(-0.18 0.26)	0.00	0.11	0.00	0.00	(-0.21 0.21)	
<i>How long mother breastfed child</i>											
=1 if at least 6 months	-0.18	0.07	0.00	-0.18	(-0.31 -0.05)	-0.19	0.07	0.00	-0.19	(-0.31 -0.05)	
<i>If child is naughty...</i>											

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Table A.3.57 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.10	0.09	0.00	0.11	(-0.07 0.28)	0.12	0.09	0.00	0.12	(-0.06 0.29)
=1 if mother tells child off	0.14	0.08	0.00	0.14	(-0.02 0.30)	0.18	0.08	0.00	0.18	(0.02 0.34)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.16	0.07	0.00	-0.16	(-0.30 -0.03)	-0.14	0.07	0.00	-0.14	(-0.27 -0.01)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.08	0.07	0.00	0.08	(-0.06 0.22)	0.00	0.07	0.00	0.00	(-0.14 0.14)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.53	0.13	0.00	-0.52	(-0.78 -0.27)	-0.48	0.12	0.00	-0.48	(-0.72 -0.24)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.06	0.06	0.00	0.06	(-0.06 0.18)	0.03	0.06	0.00	0.03	(-0.09 0.15)
<i>Maternal mental health</i>										
=1 if high distress	0.16	0.18	0.00	0.16	(-0.20 0.52)	0.05	0.18	0.00	0.05	(-0.31 0.39)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.05	0.08	0.00	0.05	(-0.11 0.21)	0.09	0.08	0.00	0.08	(-0.07 0.24)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.02	0.07	0.00	-0.02	(-0.16 0.11)	-0.05	0.07	0.00	-0.05	(-0.18 0.08)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.11	0.11	0.00	0.11	(-0.10 0.32)	0.03	0.11	0.00	0.03	(-0.18 0.24)
=1 if rented (housing association or private)/ other	0.06	0.09	0.00	0.06	(-0.11 0.24)	0.01	0.09	0.00	0.01	(-0.17 0.18)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	0.08	0.17	0.00	0.08	(-0.26 0.41)	0.06	0.17	0.00	0.06	(-0.28 0.39)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.09	0.12	0.00	0.09	(-0.14 0.33)	0.11	0.12	0.00	0.11	(-0.11 0.34)
=1 if managerial/ professional occupation	-0.18	0.07	0.00	-0.18	(-0.33 -0.04)	-0.18	0.07	0.00	-0.18	(-0.32 -0.04)
=1 if technical, semi-routine or routine occupation	0.03	0.06	0.00	0.03	(-0.09 0.15)	0.03	0.06	0.00	0.03	(-0.09 0.15)
=1 if can't remember or father died	0.18	0.12	0.00	0.18	(-0.06 0.41)	0.18	0.12	0.00	0.18	(-0.05 0.42)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	0.29	0.12	0.00	0.29	(0.06 0.51)	0.36	0.11	0.00	0.36	(0.14 0.59)
Hyperactivity Risk Factors										
<i>Gestational age</i>										
=1 if gestational age < 37 weeks	0.12	0.12	0.00	0.12	(-0.12 0.36)	0.05	0.12	0.00	0.04	(-0.19 0.28)
<i>Maternal mental health (age 1)</i>										
=1 if increased risk of depression/ anxiety	0.18	0.08	0.00	0.18	(0.02 0.34)	0.13	0.08	0.00	0.13	(-0.03 0.28)
<i>Alcohol consumption during pregnancy</i>										
=1 if 1-2 times per month	0.07	0.09	0.00	0.07	(-0.10 0.24)	0.04	0.09	0.00	0.04	(-0.13 0.21)
=1 if at least once a week	-0.03	0.09	0.00	-0.03	(-0.20 0.13)	-0.02	0.08	0.00	-0.02	(-0.18 0.15)
<i>Smoking during pregnancy</i>										
=1 if mother smoked during pregnancy	0.03	0.08	0.00	0.03	(-0.14 0.20)	0.05	0.08	0.00	0.05	(-0.11 0.21)
<i>Smoking in the same room as child</i>										
=1 if anyone smokes in same room as child (age 1)	0.04	0.10	0.00	0.04	(-0.15 0.22)	0.02	0.09	0.00	0.02	(-0.16 0.20)
=1 if anyone smokes in same room as child (age 3)	0.13	0.09	0.00	0.13	(-0.04 0.30)	0.12	0.08	0.00	0.12	(-0.04 0.28)

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Table A.3.57 – continued from previous page												
	SDQ PR					SDQ PB						
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI		
<i>Maternal attachment</i>												
Condon scale score (age 1)	-0.09	0.03	0.00	-0.09	(-0.15 -0.04)	-0.08	0.03	0.00	-0.08	(-0.13 -0.03)		
<i>Child-parent relationship</i>												
Condon scale score (age 3)	-0.79	0.03	0.00	-0.79	(-0.85 -0.73)	-0.82	0.03	0.00	-0.82	(-0.88 -0.76)		
<i>Maltreatment of children</i>												
Straus's conflict tactics scale (age 3)	0.23	0.04	0.00	0.23	(0.16 0.30)	0.22	0.04	0.00	0.22	(0.15 0.29)		
constant	4.32	0.61	0.01	4.32	(3.12 5.51)	4.41	0.61	0.01	4.41	(3.23 5.62)		
σ_τ	1.69	0.02	0.00	1.69	(1.65 1.73)	1.68	0.02	0.00	1.68	(1.64 1.72)		

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.58: Bayesian Estimates: CSR and # Chronic Conditions (Eq. 1, LP, Age 5)

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
number of health problems	-0.14	0.12	0.00	-0.12	(-0.43 0.05)	0.02	0.09	0.00	0.02	(-0.16 0.19)	-0.09	0.10	0.00	-0.08	(-0.30 0.10)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.03	0.08	0.00	0.03	(-0.12 0.18)	-0.13	0.07	0.00	-0.13	(-0.27 0.01)	-0.08	0.08	0.00	-0.08	(-0.23 0.07)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.15	0.08	0.00	-0.15	(-0.30 -0.01)	0.17	0.07	0.00	0.17	(0.03 0.31)	-0.09	0.08	0.00	-0.09	(-0.24 0.05)
=1 if NVQ level 3	-0.07	0.09	0.00	-0.07	(-0.23 0.10)	-0.07	0.08	0.00	-0.07	(-0.23 0.09)	-0.01	0.09	0.00	-0.01	(-0.18 0.16)
=1 if overseas qual. only	-0.06	0.18	0.00	-0.06	(-0.43 0.29)	0.31	0.17	0.00	0.31	(-0.01 0.64)	-0.17	0.18	0.00	-0.17	(-0.52 0.17)
=1 if none of these	-0.17	0.11	0.00	-0.17	(-0.38 0.04)	0.24	0.10	0.00	0.23	(0.04 0.44)	-0.02	0.11	0.00	-0.02	(-0.23 0.18)
<i>Mother's age at birth</i>															
=1 if less than 25 years	0.01	0.11	0.00	0.01	(-0.20 0.22)	0.32	0.10	0.00	0.32	(0.13 0.52)	-0.18	0.10	0.00	-0.18	(-0.39 0.03)
=1 if 25 to 29 years	-0.04	0.10	0.00	-0.04	(-0.22 0.15)	0.18	0.09	0.00	0.18	(0.00 0.36)	-0.19	0.10	0.00	-0.19	(-0.38 -0.00)
=1 if 30 to 34 years	-0.05	0.10	0.00	-0.05	(-0.25 0.15)	0.01	0.09	0.00	0.01	(-0.17 0.20)	-0.14	0.10	0.00	-0.14	(-0.33 0.06)
<i>Child demography</i>															
=1 if female	0.20	0.05	0.00	0.20	(0.09 0.30)	-0.06	0.05	0.00	-0.06	(-0.15 0.04)	0.15	0.05	0.00	0.15	(0.05 0.26)
age (years)	0.11	0.10	0.00	0.11	(-0.08 0.30)	-0.03	0.09	0.00	-0.03	(-0.21 0.16)	0.21	0.10	0.00	0.21	(0.01 0.39)
=1 if ethnicity is non-white	0.10	0.10	0.00	0.10	(-0.09 0.30)	0.16	0.10	0.00	0.16	(-0.03 0.35)	-0.06	0.10	0.00	-0.06	(-0.26 0.13)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.18	0.10	0.00	-0.18	(-0.39 0.02)	-0.06	0.10	0.00	-0.06	(-0.25 0.13)	-0.07	0.10	0.00	-0.07	(-0.27 0.12)
<i>Size of household</i>															
log of hh size incl. cm	0.01	0.10	0.00	0.01	(-0.19 0.21)	0.06	0.10	0.00	0.07	(-0.13 0.26)	-0.06	0.10	0.00	-0.06	(-0.26 0.14)
<i>Number of older siblings</i>															
=1 if no older siblings	-0.03	0.07	0.00	-0.03	(-0.17 0.11)	-0.03	0.07	0.00	-0.03	(-0.16 0.10)	0.00	0.07	0.00	0.00	(-0.13 0.14)
=1 if two or more older siblings	0.05	0.09	0.00	0.04	(-0.13 0.22)	0.05	0.08	0.00	0.05	(-0.11 0.22)	0.00	0.09	0.00	0.00	(-0.17 0.17)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	0.24	0.19	0.00	0.24	(-0.14 0.61)	0.13	0.18	0.00	0.13	(-0.22 0.49)	0.26	0.19	0.00	0.26	(-0.10 0.63)
<i>Country where interview took place</i>															
=1 if wales	0.50	0.30	0.00	0.50	(-0.08 1.11)	0.19	0.29	0.00	0.19	(-0.38 0.77)	-0.25	0.30	0.00	-0.25	(-0.84 0.35)
=1 if nireland	-0.07	0.45	0.00	-0.07	(-0.93 0.82)	-0.04	0.44	0.00	-0.03	(-0.89 0.81)	0.01	0.44	0.00	0.02	(-0.86 0.87)
=1 if scotland	-0.13	0.36	0.00	-0.12	(-0.83 0.57)	-0.02	0.34	0.00	-0.02	(-0.69 0.66)	-0.09	0.36	0.00	-0.09	(-0.78 0.61)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	0.14	0.06	0.00	0.14	(0.03 0.26)	-0.13	0.06	0.00	-0.13	(-0.24 -0.02)	0.10	0.06	0.00	0.10	(-0.02 0.22)
<i>Childcare</i>															
=1 if formal childcare	-0.14	0.12	0.00	-0.14	(-0.39 0.10)	0.19	0.12	0.00	0.19	(-0.05 0.42)	-0.04	0.12	0.00	-0.04	(-0.28 0.21)
=1 if informal/ other childcare	0.03	0.09	0.00	0.03	(-0.16 0.21)	-0.03	0.09	0.00	-0.03	(-0.20 0.15)	-0.06	0.09	0.00	-0.06	(-0.25 0.12)
=1 if grandparent care	0.12	0.07	0.00	0.12	(-0.01 0.25)	-0.08	0.06	0.00	-0.08	(-0.21 0.04)	0.02	0.06	0.00	0.02	(-0.10 0.15)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	-0.00	0.07	0.00	-0.00	(-0.14 0.13)	0.01	0.06	0.00	0.01	(-0.12 0.13)	0.04	0.07	0.00	0.04	(-0.09 0.17)
=1 if working full-time	-0.05	0.14	0.00	-0.05	(-0.34 0.22)	0.23	0.14	0.00	0.23	(-0.04 0.49)	0.03	0.14	0.00	0.03	(-0.25 0.30)
<i>How long mother breastfed child</i>															

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Table A.3.58 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	-0.15	0.09	0.00	-0.15	(-0.33 0.02)	-0.16	0.08	0.00	-0.16	(-0.32 0.01)	-0.16	0.09	0.00	-0.16	(-0.33 0.02)
<i>If child is naughty...</i>															
=1 if mother smacks child	-0.18	0.20	0.00	-0.18	(-0.59 0.22)	0.64	0.20	0.00	0.64	(0.26 1.03)	-0.40	0.21	0.00	-0.40	(-0.82 -0.00)
=1 if mother tells child off	-0.16	0.05	0.00	-0.16	(-0.26 -0.05)	0.34	0.05	0.00	0.34	(0.23 0.44)	-0.25	0.05	0.00	-0.25	(-0.36 -0.15)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.21	0.08	0.00	0.21	(0.05 0.37)	-0.19	0.08	0.00	-0.19	(-0.34 -0.04)	0.24	0.08	0.00	0.24	(0.08 0.39)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.07	0.07	0.00	-0.07	(-0.21 0.07)	0.23	0.07	0.00	0.23	(0.10 0.36)	-0.24	0.07	0.00	-0.24	(-0.37 -0.10)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.16	0.12	0.00	0.16	(-0.08 0.38)	-0.13	0.11	0.00	-0.13	(-0.34 0.09)	0.33	0.12	0.00	0.33	(0.10 0.56)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.08	0.06	0.00	0.08	(-0.04 0.20)	0.06	0.06	0.00	0.06	(-0.05 0.18)	-0.06	0.06	0.00	-0.06	(-0.18 0.06)
<i>Maternal mental health</i>															
=1 if high distress	-0.33	0.11	0.00	-0.33	(-0.55 -0.11)	0.35	0.11	0.00	0.35	(0.15 0.56)	-0.34	0.11	0.00	-0.34	(-0.56 -0.12)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.08	0.06	0.00	-0.08	(-0.19 0.03)	0.10	0.05	0.00	0.10	(-0.00 0.21)	-0.04	0.06	0.00	-0.04	(-0.15 0.07)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.04	0.08	0.00	-0.04	(-0.21 0.12)	-0.05	0.08	0.00	-0.05	(-0.20 0.10)	0.17	0.08	0.00	0.17	(0.01 0.33)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.11	0.09	0.00	-0.11	(-0.28 0.06)	0.12	0.08	0.00	0.12	(-0.04 0.29)	0.00	0.09	0.00	-0.00	(-0.17 0.17)
=1 if rented (housing association or private)/ other	-0.12	0.08	0.00	-0.12	(-0.27 0.03)	0.14	0.07	0.00	0.14	(-0.01 0.28)	-0.08	0.08	0.00	-0.08	(-0.24 0.07)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.17	0.11	0.00	0.17	(-0.05 0.39)	-0.25	0.11	0.00	-0.25	(-0.47 -0.04)	0.05	0.11	0.00	0.05	(-0.17 0.28)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.06	0.10	0.00	0.06	(-0.13 0.25)	0.24	0.09	0.00	0.24	(0.06 0.41)	-0.06	0.09	0.00	-0.06	(-0.25 0.12)
=1 if managerial/ professional occupation	0.10	0.09	0.00	0.10	(-0.08 0.27)	0.22	0.08	0.00	0.22	(0.06 0.38)	-0.06	0.09	0.00	-0.06	(-0.23 0.11)
=1 if technical, semi-routine or routine occupation	0.15	0.07	0.00	0.15	(0.02 0.28)	0.11	0.06	0.00	0.11	(-0.01 0.24)	-0.01	0.07	0.00	-0.01	(-0.15 0.12)
=1 if can't remember or father died	0.14	0.10	0.00	0.14	(-0.05 0.33)	0.14	0.09	0.00	0.14	(-0.04 0.32)	-0.12	0.10	0.00	-0.12	(-0.30 0.07)
constant	-1.36	0.61	0.01	-1.35	(-2.57 -0.16)	0.52	0.59	0.01	0.52	(-0.64 1.70)	-1.05	0.62	0.01	-1.06	(-2.24 0.17)
σ_ϵ	0.95	0.04	0.00	0.96	(0.83 1.01)	0.91	0.03	0.00	0.91	(0.83 0.95)	0.95	0.03	0.00	0.96	(0.88 1.00)
σ_ζ	0.20	0.15	0.02	0.17	(0.02 0.56)	0.18	0.10	0.01	0.17	(0.04 0.41)	0.16	0.11	0.01	0.13	(0.03 0.43)
$\rho_{\zeta\xi}$	0.30	0.53	0.04	0.39	(-0.76 0.97)	0.13	0.53	0.04	0.18	(-0.88 0.95)	0.13	0.61	0.06	0.22	(-0.98 0.97)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.59: Bayesian Estimates: CSR and # Chronic Conditions (Eq. 1, TP, Age 5)

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
number of health problems	-0.08	0.07	0.00	-0.08	(-0.21 0.05)	0.68	0.03	0.00	0.68	(0.61 0.74)	-0.70	0.03	0.00	-0.70	(-0.76 -0.64)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.12	0.03	0.00	0.12	(0.05 0.18)	-0.19	0.03	0.00	-0.19	(-0.26 -0.12)	0.07	0.03	0.00	0.07	(0.01 0.14)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.02	0.03	0.00	-0.02	(-0.08 0.04)	0.08	0.03	0.00	0.08	(0.02 0.13)	-0.01	0.03	0.00	-0.01	(-0.07 0.05)
=1 if NVQ level 3	0.03	0.03	0.00	0.03	(-0.04 0.09)	0.02	0.03	0.00	0.02	(-0.04 0.09)	-0.02	0.03	0.00	-0.02	(-0.09 0.04)
=1 if overseas qual. only	-0.09	0.10	0.00	-0.09	(-0.29 0.10)	0.14	0.10	0.00	0.14	(-0.06 0.34)	-0.25	0.11	0.00	-0.25	(-0.47 -0.05)
=1 if none of these	-0.06	0.06	0.00	-0.06	(-0.17 0.06)	0.16	0.06	0.00	0.16	(0.04 0.26)	0.03	0.06	0.00	0.03	(-0.08 0.14)
<i>Mother's age at birth</i>															
=1 if less than 25 years	0.03	0.05	0.00	0.04	(-0.06 0.12)	0.27	0.05	0.00	0.26	(0.17 0.36)	-0.00	0.05	0.00	-0.00	(-0.10 0.10)
=1 if 25 to 29 years	0.04	0.04	0.00	0.04	(-0.03 0.11)	0.10	0.04	0.00	0.10	(0.02 0.17)	0.07	0.04	0.00	0.07	(0.00 0.15)
=1 if 30 to 34 years	0.01	0.03	0.00	0.01	(-0.06 0.07)	0.08	0.04	0.00	0.08	(0.01 0.15)	-0.01	0.04	0.00	-0.01	(-0.08 0.06)
<i>Child demography</i>															
=1 if female	0.25	0.02	0.00	0.25	(0.21 0.30)	-0.09	0.02	0.00	-0.09	(-0.13 -0.05)	0.06	0.02	0.00	0.06	(0.02 0.11)
age (years)	0.22	0.05	0.00	0.22	(0.13 0.31)	-0.06	0.05	0.00	-0.06	(-0.15 0.04)	0.10	0.05	0.00	0.10	(-0.00 0.19)
=1 if ethnicity is non-white	-0.09	0.05	0.00	-0.09	(-0.20 0.01)	0.02	0.05	0.00	0.02	(-0.08 0.11)	-0.00	0.06	0.00	-0.00	(-0.11 0.11)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.19	0.05	0.00	-0.19	(-0.29 -0.08)	0.09	0.05	0.00	0.09	(-0.01 0.19)	-0.01	0.06	0.00	-0.01	(-0.12 0.10)
<i>Size of household</i>															
log of hh size incl. cm	-0.00	0.07	0.00	-0.00	(-0.15 0.14)	0.22	0.07	0.00	0.22	(0.08 0.36)	-0.12	0.08	0.00	-0.12	(-0.27 0.03)
<i>Number of older siblings</i>															
=1 if no older siblings	-0.02	0.03	0.00	-0.02	(-0.07 0.04)	0.03	0.03	0.00	0.03	(-0.03 0.08)	0.02	0.03	0.00	0.02	(-0.04 0.08)
=1 if two or more older siblings	0.02	0.04	0.00	0.02	(-0.06 0.09)	-0.11	0.04	0.00	-0.11	(-0.18 -0.04)	0.05	0.04	0.00	0.05	(-0.02 0.13)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	0.06	0.10	0.00	0.06	(-0.14 0.26)	0.13	0.09	0.00	0.13	(-0.05 0.32)	-0.15	0.12	0.00	-0.14	(-0.40 0.06)
<i>Country where interview took place</i>															
=1 if wales	-0.11	0.12	0.00	-0.11	(-0.35 0.12)	-0.05	0.12	0.00	-0.05	(-0.28 0.20)	-0.03	0.11	0.00	-0.03	(-0.27 0.19)
=1 if nireland	0.12	0.26	0.00	0.13	(-0.40 0.64)	0.15	0.27	0.01	0.14	(-0.35 0.70)	0.18	0.26	0.01	0.18	(-0.34 0.68)
=1 if scotland	0.07	0.15	0.00	0.07	(-0.22 0.36)	0.10	0.14	0.00	0.10	(-0.17 0.39)	-0.09	0.15	0.00	-0.09	(-0.39 0.20)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	0.06	0.03	0.00	0.05	(0.01 0.11)	-0.07	0.02	0.00	-0.07	(-0.12 -0.02)	0.04	0.03	0.00	0.04	(-0.01 0.10)
<i>Childcare</i>															
=1 if formal childcare	-0.03	0.05	0.00	-0.03	(-0.13 0.07)	-0.05	0.05	0.00	-0.04	(-0.15 0.05)	0.08	0.05	0.00	0.08	(-0.04 0.18)
=1 if informal/ other childcare	-0.03	0.05	0.00	-0.03	(-0.12 0.06)	0.01	0.04	0.00	0.01	(-0.08 0.09)	0.05	0.05	0.00	0.05	(-0.05 0.14)
=1 if grandparent care	0.02	0.03	0.00	0.02	(-0.04 0.07)	-0.02	0.03	0.00	-0.02	(-0.07 0.04)	0.04	0.03	0.00	0.04	(-0.02 0.09)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	0.06	0.03	0.00	0.06	(0.01 0.11)	-0.02	0.03	0.00	-0.02	(-0.07 0.03)	-0.01	0.03	0.00	-0.01	(-0.07 0.04)
=1 if working full-time	0.15	0.06	0.00	0.15	(0.04 0.26)	0.08	0.05	0.00	0.08	(-0.03 0.19)	-0.02	0.05	0.00	-0.02	(-0.12 0.08)
<i>How long mother breastfed child</i>															

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Table A.3.59 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.03	0.03	0.00	0.03	(-0.02 0.09)	-0.10	0.03	0.00	-0.10	(-0.16 -0.05)	0.00	0.03	0.00	0.01	(-0.05 0.06)
<i>If child is naughty...</i>															
=1 if mother smacks child	-0.23	0.10	0.00	-0.23	(-0.43 -0.04)	0.45	0.10	0.00	0.45	(0.26 0.66)	-0.59	0.10	0.00	-0.59	(-0.78 -0.40)
=1 if mother tells child off	-0.25	0.02	0.00	-0.25	(-0.30 -0.21)	0.35	0.02	0.00	0.35	(0.30 0.39)	-0.37	0.02	0.00	-0.36	(-0.41 -0.32)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.13	0.04	0.00	0.13	(0.04 0.21)	-0.25	0.04	0.00	-0.25	(-0.33 -0.17)	0.16	0.04	0.00	0.16	(0.08 0.24)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.05	0.03	0.00	-0.04	(-0.11 0.02)	0.09	0.03	0.00	0.09	(0.02 0.16)	-0.02	0.03	0.00	-0.02	(-0.08 0.05)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.14	0.06	0.00	0.14	(0.02 0.25)	-0.22	0.06	0.00	-0.22	(-0.33 -0.10)	0.06	0.06	0.00	0.06	(-0.05 0.17)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.05	0.03	0.00	0.05	(-0.00 0.11)	0.08	0.03	0.00	0.08	(0.03 0.13)	-0.05	0.03	0.00	-0.05	(-0.10 0.00)
<i>Maternal mental health</i>															
=1 if high distress	-0.35	0.08	0.00	-0.35	(-0.50 -0.20)	0.45	0.07	0.00	0.45	(0.30 0.59)	-0.40	0.08	0.00	-0.40	(-0.55 -0.25)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.04	0.03	0.00	-0.04	(-0.10 0.02)	0.04	0.03	0.00	0.04	(-0.01 0.10)	-0.03	0.03	0.00	-0.03	(-0.08 0.03)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.03	0.03	0.00	-0.03	(-0.09 0.02)	-0.03	0.03	0.00	-0.03	(-0.08 0.03)	-0.05	0.03	0.00	-0.05	(-0.10 0.01)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.03	0.05	0.00	0.03	(-0.06 0.13)	0.03	0.05	0.00	0.03	(-0.06 0.13)	-0.03	0.05	0.00	-0.03	(-0.13 0.07)
=1 if rented (housing association or private)/ other	0.07	0.04	0.00	0.07	(-0.01 0.15)	0.03	0.04	0.00	0.03	(-0.04 0.11)	-0.03	0.04	0.00	-0.03	(-0.11 0.06)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.05	0.06	0.00	0.05	(-0.07 0.17)	-0.13	0.06	0.00	-0.13	(-0.24 -0.01)	0.11	0.06	0.00	0.11	(-0.02 0.23)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.11	0.05	0.00	-0.12	(-0.21 -0.01)	0.07	0.05	0.00	0.07	(-0.03 0.17)	-0.02	0.05	0.00	-0.02	(-0.13 0.08)
=1 if managerial/ professional occupation	0.08	0.03	0.00	0.08	(0.02 0.14)	0.00	0.03	0.00	0.00	(-0.06 0.06)	-0.00	0.03	0.00	-0.00	(-0.07 0.06)
=1 if technical, semi-routine or routine occupation	-0.01	0.03	0.00	-0.01	(-0.06 0.05)	0.01	0.03	0.00	0.01	(-0.05 0.06)	0.01	0.03	0.00	0.01	(-0.05 0.07)
=1 if can't remember or father died	-0.05	0.05	0.00	-0.05	(-0.15 0.06)	0.04	0.06	0.00	0.04	(-0.09 0.16)	-0.09	0.05	0.00	-0.09	(-0.19 0.01)
constant	-2.30	0.35	0.00	-2.30	(-2.99 -1.60)	1.20	0.36	0.01	1.20	(0.52 1.92)	-0.63	0.39	0.01	-0.63	(-1.42 0.13)
σ_ϵ	0.96	0.02	0.00	0.96	(0.89 0.98)	0.56	0.03	0.00	0.56	(0.48 0.62)	0.54	0.04	0.00	0.54	(0.47 0.62)
σ_ζ	0.14	0.08	0.02	0.13	(0.06 0.39)	0.80	0.03	0.00	0.80	(0.75 0.85)	0.86	0.03	0.00	0.86	(0.80 0.91)
$\rho_{\zeta\xi}$	0.19	0.54	0.11	0.25	(-0.81 0.96)	-0.99	0.01	0.00	-1.00	(-1.00 -0.97)	0.99	0.01	0.00	1.00	(0.98 1.00)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.60: Bayesian Estimates: CSR and # Chronic Conditions (Eq. 2, LP, Age 5)

	CSR IND					CSR EMO					CSR COO							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Standard Background Controls																		
<i>Income</i>																		
log of permanent family income (weekly, imp.)	-0.13	0.18	0.01	-0.13	(-0.48	0.23)	-0.14	0.18	0.01	-0.14	(-0.48	0.22)	-0.13	0.17	0.01	-0.13	(-0.47	0.21)
<i>Maternal education</i>																		
=1 if NVQ level 1 or 2	-0.04	0.20	0.00	-0.04	(-0.43	0.37)	-0.02	0.20	0.00	-0.02	(-0.42	0.37)	-0.03	0.21	0.00	-0.04	(-0.43	0.37)
=1 if NVQ level 3	0.06	0.24	0.00	0.07	(-0.40	0.52)	0.08	0.24	0.00	0.08	(-0.38	0.54)	0.08	0.24	0.00	0.08	(-0.39	0.54)
=1 if overseas qual. only	-0.49	0.51	0.01	-0.47	(-1.51	0.47)	-0.48	0.50	0.01	-0.47	(-1.50	0.47)	-0.49	0.50	0.01	-0.47	(-1.52	0.44)
=1 if none of these	-0.20	0.28	0.00	-0.20	(-0.75	0.34)	-0.19	0.27	0.00	-0.19	(-0.72	0.34)	-0.20	0.28	0.00	-0.20	(-0.74	0.33)
<i>Mother's age at birth</i>																		
=1 if less than 25 years	-0.02	0.27	0.00	-0.03	(-0.54	0.51)	-0.02	0.27	0.00	-0.02	(-0.54	0.52)	-0.01	0.27	0.00	-0.02	(-0.53	0.52)
=1 if 25 to 29 years	-0.05	0.25	0.00	-0.05	(-0.53	0.43)	-0.05	0.25	0.00	-0.05	(-0.54	0.45)	-0.04	0.25	0.00	-0.04	(-0.52	0.45)
=1 if 30 to 34 years	-0.05	0.26	0.00	-0.05	(-0.55	0.46)	-0.05	0.26	0.00	-0.05	(-0.55	0.46)	-0.04	0.25	0.00	-0.04	(-0.54	0.47)
<i>Child demography</i>																		
=1 if female	-0.40	0.15	0.00	-0.40	(-0.69	-0.12)	-0.40	0.15	0.00	-0.40	(-0.68	-0.12)	-0.40	0.15	0.00	-0.40	(-0.68	-0.11)
age (years)	-0.27	0.30	0.02	-0.27	(-0.87	0.30)	-0.31	0.29	0.01	-0.30	(-0.87	0.24)	-0.31	0.29	0.01	-0.30	(-0.88	0.25)
=1 if ethnicity is non-white	0.17	0.25	0.00	0.17	(-0.33	0.65)	0.18	0.25	0.00	0.18	(-0.31	0.65)	0.17	0.25	0.00	0.17	(-0.33	0.66)
<i>Child's health endowment</i>																		
=1 if birth weight < 2500g	0.14	0.26	0.00	0.15	(-0.38	0.64)	0.13	0.26	0.00	0.14	(-0.39	0.62)	0.14	0.25	0.00	0.15	(-0.35	0.63)
<i>Size of household</i>																		
log of hh size incl. cm	-0.25	0.27	0.01	-0.25	(-0.80	0.28)	-0.22	0.28	0.01	-0.22	(-0.77	0.31)	-0.24	0.27	0.01	-0.24	(-0.79	0.29)
<i>Number of older siblings</i>																		
=1 if no older siblings	-0.57	0.19	0.00	-0.57	(-0.94	-0.20)	-0.56	0.19	0.00	-0.56	(-0.93	-0.20)	-0.57	0.19	0.00	-0.57	(-0.94	-0.21)
=1 if two or more older siblings	-0.08	0.22	0.00	-0.08	(-0.52	0.34)	-0.09	0.22	0.00	-0.09	(-0.54	0.35)	-0.09	0.22	0.00	-0.09	(-0.53	0.34)
<i>Respondent's relationship to child</i>																		
=1 if natural mother of child	-0.32	0.46	0.01	-0.34	(-1.19	0.61)	-0.29	0.45	0.01	-0.31	(-1.15	0.62)	-0.31	0.45	0.01	-0.32	(-1.17	0.60)
<i>Country where interview took place</i>																		
=1 if wales	-0.06	0.55	0.01	-0.07	(-1.12	1.00)	-0.07	0.56	0.01	-0.07	(-1.18	1.03)	-0.04	0.55	0.01	-0.03	(-1.12	1.03)
=1 if nireland	-0.36	0.60	0.01	-0.36	(-1.51	0.83)	-0.36	0.61	0.01	-0.35	(-1.56	0.81)	-0.35	0.61	0.01	-0.34	(-1.55	0.83)
=1 if scotland	-0.07	0.56	0.01	-0.07	(-1.16	1.01)	-0.06	0.55	0.01	-0.05	(-1.16	1.00)	-0.05	0.55	0.01	-0.04	(-1.16	1.04)
Time and Care																		
<i>Time mother spends with child</i>																		
=1 if at least just enough	-0.19	0.19	0.00	-0.19	(-0.55	0.18)	-0.20	0.19	0.00	-0.20	(-0.56	0.18)	-0.19	0.19	0.00	-0.19	(-0.56	0.18)
<i>Childcare</i>																		
=1 if formal childcare	0.23	0.20	0.00	0.24	(-0.17	0.62)	0.20	0.20	0.00	0.21	(-0.18	0.58)	0.21	0.20	0.00	0.21	(-0.18	0.59)
=1 if informal/ other childcare	0.15	0.33	0.00	0.16	(-0.53	0.78)	0.13	0.33	0.00	0.14	(-0.54	0.76)	0.13	0.34	0.00	0.14	(-0.54	0.78)
=1 if grandparent care	0.05	0.19	0.00	0.05	(-0.34	0.42)	0.05	0.19	0.00	0.05	(-0.34	0.42)	0.04	0.20	0.00	0.05	(-0.35	0.43)
<i>Maternal employment (t - 1)</i>																		
=1 if working part-time	0.17	0.18	0.00	0.17	(-0.18	0.51)	0.16	0.18	0.00	0.16	(-0.19	0.51)	0.17	0.18	0.00	0.17	(-0.18	0.51)
=1 if working full-time	-0.26	0.43	0.00	-0.25	(-1.15	0.54)	-0.27	0.43	0.00	-0.26	(-1.15	0.55)	-0.25	0.43	0.00	-0.24	(-1.12	0.58)
<i>How long mother breastfed child</i>																		
=1 if at least 6 months	-0.61	0.27	0.00	-0.60	(-1.16	-0.09)	-0.59	0.28	0.00	-0.58	(-1.16	-0.07)	-0.60	0.27	0.00	-0.60	(-1.15	-0.08)
<i>If child is naughty...</i>																		

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Table A.3.60 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.12	0.24	0.00	-0.12	(-0.61 0.34)	-0.13	0.24	0.00	-0.13	(-0.61 0.33)	-0.12	0.24	0.00	-0.12	(-0.60 0.35)
=1 if mother tells child off	-0.10	0.19	0.00	-0.10	(-0.47 0.29)	-0.10	0.20	0.00	-0.10	(-0.49 0.29)	-0.09	0.19	0.00	-0.09	(-0.47 0.29)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.15	0.18	0.00	0.15	(-0.20 0.51)	0.16	0.18	0.00	0.16	(-0.20 0.52)	0.14	0.18	0.00	0.14	(-0.20 0.51)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	0.18	0.18	0.00	0.18	(-0.17 0.52)	0.18	0.18	0.00	0.19	(-0.17 0.53)	0.19	0.18	0.00	0.19	(-0.17 0.54)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.32	0.28	0.00	0.31	(-0.21 0.87)	0.36	0.28	0.00	0.35	(-0.17 0.91)	0.34	0.28	0.00	0.34	(-0.18 0.92)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.70	0.15	0.00	0.70	(0.40 1.00)	0.70	0.15	0.00	0.70	(0.40 1.00)	0.70	0.15	0.00	0.70	(0.40 1.00)
<i>Maternal mental health</i>															
=1 if high distress	0.15	0.27	0.00	0.16	(-0.40 0.66)	0.12	0.27	0.00	0.12	(-0.42 0.63)	0.13	0.26	0.00	0.13	(-0.38 0.64)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.06	0.16	0.00	-0.06	(-0.36 0.25)	-0.05	0.15	0.00	-0.05	(-0.35 0.25)	-0.05	0.15	0.00	-0.05	(-0.34 0.25)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	0.01	0.23	0.00	0.01	(-0.44 0.45)	0.02	0.23	0.00	0.03	(-0.44 0.46)	0.01	0.22	0.00	0.01	(-0.43 0.45)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.29	0.22	0.00	0.28	(-0.14 0.72)	0.29	0.22	0.00	0.29	(-0.14 0.72)	0.29	0.22	0.00	0.29	(-0.15 0.71)
=1 if rented (housing association or private)/ other	0.19	0.20	0.00	0.19	(-0.22 0.58)	0.18	0.21	0.00	0.18	(-0.21 0.58)	0.19	0.21	0.00	0.19	(-0.22 0.59)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.10	0.30	0.01	0.10	(-0.48 0.71)	0.11	0.30	0.01	0.10	(-0.46 0.71)	0.11	0.30	0.01	0.11	(-0.47 0.72)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.29	0.25	0.00	0.30	(-0.20 0.78)	0.30	0.25	0.00	0.30	(-0.19 0.78)	0.29	0.25	0.00	0.29	(-0.20 0.78)
=1 if managerial/ professional occupation	0.24	0.25	0.00	0.24	(-0.24 0.71)	0.25	0.24	0.00	0.25	(-0.24 0.72)	0.24	0.25	0.00	0.24	(-0.25 0.72)
=1 if technical, semi-routine or routine occupation	0.33	0.18	0.00	0.33	(-0.03 0.68)	0.33	0.18	0.00	0.33	(-0.02 0.70)	0.33	0.18	0.00	0.33	(-0.02 0.70)
=1 if can't remember or father died	0.31	0.26	0.00	0.31	(-0.20 0.81)	0.31	0.26	0.00	0.31	(-0.21 0.80)	0.31	0.26	0.00	0.31	(-0.20 0.80)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	-0.01	0.23	0.00	-0.01	(-0.48 0.44)	-0.04	0.24	0.00	-0.04	(-0.51 0.42)	-0.03	0.23	0.00	-0.02	(-0.49 0.42)
constant	-0.39	0.84	0.04	-0.39	(-2.08 1.24)	-0.35	0.84	0.04	-0.35	(-1.99 1.27)	-0.39	0.87	0.04	-0.38	(-2.10 1.28)
α	8.14	6.28	0.34	6.23	(2.30 25.60)	7.79	5.56	0.28	6.23	(2.33 23.29)	7.87	5.65	0.28	6.32	(2.19 22.81)
$\ln\alpha$	1.89	0.61	0.03	1.83	(0.83 3.24)	1.87	0.59	0.03	1.83	(0.85 3.15)	1.88	0.59	0.03	1.84	(0.78 3.13)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.61: Bayesian Estimates: CSR and # Chronic Conditions (Eq. 2, TP, Age 5)

	CSR IND					CSR EMO					CSR COO							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Standard Background Controls																		
<i>Income</i>																		
log of permanent family income (weekly, imp.)	-0.06	0.09	0.01	-0.06	(-0.23	0.13)	0.00	0.09	0.01	0.00	(-0.16	0.17)	-0.03	0.08	0.00	-0.03	(-0.20	0.13)
<i>Maternal education</i>																		
=1 if NVQ level 1 or 2	-0.18	0.09	0.00	-0.18	(-0.35	-0.01)	-0.23	0.08	0.00	-0.22	(-0.39	-0.06)	-0.21	0.08	0.00	-0.21	(-0.37	-0.05)
=1 if NVQ level 3	-0.04	0.10	0.00	-0.04	(-0.23	0.15)	-0.06	0.09	0.00	-0.06	(-0.24	0.12)	-0.06	0.09	0.00	-0.06	(-0.24	0.12)
=1 if overseas qual. only	0.09	0.25	0.00	0.09	(-0.41	0.57)	0.07	0.24	0.00	0.08	(-0.41	0.53)	-0.10	0.24	0.00	-0.10	(-0.59	0.35)
=1 if none of these	-0.28	0.16	0.00	-0.28	(-0.61	0.03)	-0.33	0.16	0.00	-0.33	(-0.63	-0.02)	-0.25	0.15	0.00	-0.24	(-0.56	0.05)
<i>Mother's age at birth</i>																		
=1 if less than 25 years	-0.01	0.13	0.00	-0.01	(-0.26	0.25)	-0.05	0.12	0.00	-0.05	(-0.29	0.19)	0.03	0.13	0.00	0.03	(-0.22	0.28)
=1 if 25 to 29 years	0.12	0.10	0.00	0.11	(-0.09	0.32)	0.06	0.10	0.00	0.07	(-0.13	0.26)	0.13	0.10	0.00	0.13	(-0.06	0.33)
=1 if 30 to 34 years	0.02	0.10	0.00	0.02	(-0.17	0.21)	-0.00	0.09	0.00	-0.01	(-0.19	0.18)	0.03	0.09	0.00	0.03	(-0.16	0.21)
<i>Child demography</i>																		
=1 if female	-0.13	0.07	0.00	-0.13	(-0.26	-0.00)	-0.08	0.06	0.00	-0.08	(-0.21	0.04)	-0.08	0.06	0.00	-0.08	(-0.20	0.04)
age (years)	-0.10	0.17	0.01	-0.10	(-0.46	0.21)	-0.11	0.16	0.01	-0.11	(-0.42	0.21)	-0.14	0.16	0.01	-0.13	(-0.45	0.17)
=1 if ethnicity is non-white	0.07	0.15	0.00	0.07	(-0.23	0.36)	0.06	0.14	0.00	0.06	(-0.22	0.32)	0.09	0.14	0.00	0.09	(-0.19	0.37)
<i>Child's health endowment</i>																		
=1 if birth weight < 2500g	0.40	0.14	0.00	0.40	(0.13	0.66)	0.35	0.13	0.00	0.35	(0.10	0.60)	0.37	0.13	0.00	0.37	(0.10	0.63)
<i>Size of household</i>																		
log of hh size incl. cm	-0.27	0.20	0.01	-0.27	(-0.68	0.12)	-0.35	0.19	0.01	-0.35	(-0.74	0.02)	-0.31	0.19	0.01	-0.31	(-0.69	0.07)
<i>Number of older siblings</i>																		
=1 if no older siblings	-0.21	0.08	0.00	-0.21	(-0.38	-0.05)	-0.21	0.08	0.00	-0.21	(-0.38	-0.05)	-0.23	0.08	0.00	-0.23	(-0.39	-0.07)
=1 if two or more older siblings	-0.13	0.11	0.00	-0.13	(-0.34	0.08)	-0.10	0.10	0.00	-0.10	(-0.31	0.10)	-0.12	0.11	0.00	-0.12	(-0.33	0.09)
<i>Respondent's relationship to child</i>																		
=1 if natural mother of child	-0.11	0.33	0.01	-0.12	(-0.73	0.55)	-0.11	0.31	0.01	-0.12	(-0.69	0.52)	-0.07	0.31	0.01	-0.09	(-0.65	0.56)
<i>Country where interview took place</i>																		
=1 if wales	0.72	0.33	0.01	0.72	(0.07	1.36)	0.62	0.30	0.01	0.62	(0.01	1.20)	0.55	0.31	0.01	0.56	(-0.05	1.15)
=1 if nireland	0.10	0.49	0.01	0.10	(-0.88	1.07)	-0.08	0.47	0.01	-0.08	(-1.00	0.83)	0.07	0.47	0.01	0.09	(-0.89	0.98)
=1 if scotland	-0.53	0.39	0.01	-0.53	(-1.27	0.23)	-0.48	0.36	0.01	-0.48	(-1.20	0.23)	-0.29	0.37	0.01	-0.29	(-1.03	0.43)
Time and Care																		
<i>Time mother spends with child</i>																		
=1 if at least just enough	-0.03	0.08	0.00	-0.03	(-0.19	0.14)	-0.04	0.08	0.00	-0.04	(-0.19	0.12)	-0.03	0.08	0.00	-0.03	(-0.18	0.12)
<i>Childcare</i>																		
=1 if formal childcare	-0.03	0.09	0.00	-0.03	(-0.21	0.15)	-0.04	0.08	0.00	-0.04	(-0.21	0.12)	-0.06	0.08	0.00	-0.06	(-0.22	0.10)
=1 if informal/ other childcare	-0.27	0.19	0.00	-0.26	(-0.64	0.09)	-0.27	0.18	0.00	-0.26	(-0.62	0.06)	-0.29	0.18	0.00	-0.29	(-0.65	0.03)
=1 if grandparent care	0.01	0.09	0.00	0.01	(-0.18	0.19)	-0.00	0.09	0.00	-0.00	(-0.18	0.17)	-0.03	0.09	0.00	-0.03	(-0.20	0.14)
<i>Maternal employment (t - 1)</i>																		
=1 if working part-time	-0.07	0.08	0.00	-0.07	(-0.22	0.08)	-0.08	0.07	0.00	-0.08	(-0.22	0.06)	-0.03	0.07	0.00	-0.03	(-0.17	0.10)
=1 if working full-time	-0.07	0.15	0.00	-0.07	(-0.36	0.22)	-0.06	0.14	0.00	-0.06	(-0.34	0.21)	-0.05	0.14	0.00	-0.04	(-0.33	0.22)
<i>How long mother breastfed child</i>																		
=1 if at least 6 months	0.07	0.08	0.00	0.07	(-0.10	0.24)	0.10	0.08	0.00	0.10	(-0.07	0.26)	0.06	0.08	0.00	0.06	(-0.09	0.22)
<i>If child is naughty...</i>																		

continued on next page

Table A.3.61 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.28	0.12	0.00	-0.28	(-0.52 -0.05)	-0.12	0.11	0.00	-0.11	(-0.34 0.10)	-0.17	0.11	0.00	-0.17	(-0.40 0.05)
=1 if mother tells child off	0.18	0.10	0.00	0.18	(-0.01 0.37)	0.17	0.09	0.00	0.17	(-0.01 0.34)	0.28	0.09	0.00	0.28	(0.10 0.45)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	-0.01	0.09	0.00	-0.01	(-0.18 0.16)	-0.03	0.08	0.00	-0.03	(-0.19 0.14)	-0.00	0.08	0.00	-0.00	(-0.16 0.16)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.01	0.10	0.00	-0.01	(-0.20 0.17)	0.09	0.09	0.00	0.09	(-0.09 0.26)	0.04	0.09	0.00	0.04	(-0.14 0.21)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.05	0.16	0.00	0.04	(-0.27 0.38)	-0.09	0.15	0.00	-0.09	(-0.38 0.22)	-0.07	0.15	0.00	-0.07	(-0.35 0.24)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.46	0.07	0.00	0.46	(0.32 0.61)	0.38	0.07	0.00	0.38	(0.25 0.51)	0.40	0.07	0.00	0.40	(0.27 0.53)
<i>Maternal mental health</i>															
=1 if high distress	0.22	0.21	0.00	0.22	(-0.20 0.62)	0.20	0.19	0.00	0.20	(-0.18 0.55)	0.25	0.19	0.00	0.25	(-0.12 0.60)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.16	0.08	0.00	0.16	(0.00 0.32)	0.17	0.08	0.00	0.17	(0.02 0.32)	0.15	0.08	0.00	0.15	(0.00 0.30)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.13	0.09	0.00	-0.13	(-0.31 0.04)	-0.13	0.08	0.00	-0.13	(-0.30 0.03)	-0.13	0.09	0.00	-0.13	(-0.30 0.03)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.13	0.12	0.00	0.13	(-0.12 0.37)	0.09	0.12	0.00	0.09	(-0.14 0.33)	0.09	0.12	0.00	0.09	(-0.15 0.33)
=1 if rented (housing association or private)/ other	-0.01	0.11	0.00	-0.01	(-0.23 0.21)	-0.06	0.10	0.00	-0.06	(-0.27 0.14)	-0.04	0.11	0.00	-0.04	(-0.25 0.17)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.01	0.21	0.01	0.01	(-0.39 0.44)	-0.01	0.20	0.00	-0.01	(-0.39 0.39)	0.05	0.20	0.00	0.05	(-0.33 0.46)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.02	0.14	0.00	-0.02	(-0.31 0.26)	-0.08	0.14	0.00	-0.07	(-0.35 0.19)	-0.01	0.14	0.00	-0.01	(-0.29 0.26)
=1 if managerial/ professional occupation	-0.06	0.09	0.00	-0.06	(-0.24 0.12)	-0.06	0.09	0.00	-0.06	(-0.24 0.12)	-0.05	0.09	0.00	-0.05	(-0.23 0.13)
=1 if technical, semi-routine or routine occupation	0.02	0.08	0.00	0.02	(-0.14 0.17)	0.01	0.08	0.00	0.01	(-0.14 0.16)	0.04	0.08	0.00	0.04	(-0.11 0.20)
=1 if can't remember or father died	-0.00	0.15	0.00	-0.00	(-0.31 0.29)	-0.00	0.15	0.00	-0.00	(-0.30 0.28)	-0.05	0.14	0.00	-0.05	(-0.33 0.23)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	0.13	0.14	0.00	0.13	(-0.15 0.40)	0.19	0.13	0.00	0.19	(-0.06 0.44)	0.13	0.13	0.00	0.13	(-0.12 0.38)
constant	-1.10	0.67	0.05	-1.12	(-2.38 0.26)	-1.11	0.71	0.06	-1.09	(-2.47 0.23)	-1.16	0.62	0.05	-1.15	(-2.37 0.08)
α	21.07	12.25	1.18	17.68	(8.24 56.35)	33.06	19.91	1.98	27.91	(12.32 91.55)	36.25	22.14	2.23	29.87	(12.87 94.77)
$\ln\alpha$	2.92	0.47	0.04	2.87	(2.11 4.03)	3.36	0.50	0.05	3.33	(2.51 4.52)	3.44	0.53	0.05	3.40	(2.56 4.55)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.62: Bayesian Estimates: CSR and # Hospital Admissions (Eq. 1, LP, Age 5)

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
number of hospital admissions	-0.02	0.05	0.00	-0.02	(-0.13 0.07)	0.03	0.05	0.00	0.02	(-0.06 0.12)	-0.03	0.05	0.00	-0.03	(-0.14 0.06)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.03	0.08	0.00	0.03	(-0.12 0.18)	-0.13	0.07	0.00	-0.13	(-0.28 0.01)	-0.08	0.08	0.00	-0.08	(-0.23 0.07)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.15	0.08	0.00	-0.15	(-0.30 -0.00)	0.17	0.07	0.00	0.17	(0.02 0.31)	-0.09	0.08	0.00	-0.09	(-0.24 0.06)
=1 if NVQ level 3	-0.07	0.09	0.00	-0.07	(-0.25 0.09)	-0.07	0.08	0.00	-0.07	(-0.24 0.09)	-0.01	0.09	0.00	-0.01	(-0.19 0.16)
=1 if overseas qual. only	-0.06	0.18	0.00	-0.06	(-0.40 0.29)	0.31	0.17	0.00	0.31	(-0.02 0.65)	-0.17	0.17	0.00	-0.17	(-0.52 0.16)
=1 if none of these	-0.17	0.11	0.00	-0.17	(-0.38 0.04)	0.24	0.10	0.00	0.24	(0.04 0.43)	-0.02	0.10	0.00	-0.02	(-0.22 0.19)
<i>Mother's age at birth</i>															
=1 if less than 25 years	0.02	0.11	0.00	0.02	(-0.19 0.22)	0.32	0.10	0.00	0.32	(0.13 0.52)	-0.18	0.11	0.00	-0.18	(-0.39 0.04)
=1 if 25 to 29 years	-0.03	0.10	0.00	-0.03	(-0.22 0.16)	0.18	0.09	0.00	0.18	(0.00 0.36)	-0.19	0.10	0.00	-0.19	(-0.38 0.01)
=1 if 30 to 34 years	-0.05	0.10	0.00	-0.05	(-0.24 0.15)	0.01	0.09	0.00	0.01	(-0.17 0.20)	-0.14	0.10	0.00	-0.14	(-0.33 0.06)
<i>Child demography</i>															
=1 if female	0.21	0.05	0.00	0.21	(0.10 0.31)	-0.06	0.05	0.00	-0.06	(-0.15 0.04)	0.16	0.05	0.00	0.16	(0.05 0.26)
age (years)	0.11	0.10	0.00	0.11	(-0.07 0.30)	-0.03	0.09	0.00	-0.03	(-0.21 0.15)	0.21	0.10	0.00	0.21	(0.02 0.40)
=1 if ethnicity is non-white	0.09	0.10	0.00	0.09	(-0.10 0.29)	0.17	0.10	0.00	0.17	(-0.03 0.35)	-0.07	0.10	0.00	-0.07	(-0.27 0.13)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.18	0.10	0.00	-0.18	(-0.38 0.01)	-0.06	0.10	0.00	-0.06	(-0.25 0.12)	-0.07	0.10	0.00	-0.07	(-0.27 0.13)
<i>Size of household</i>															
log of hh size incl. cm	0.01	0.10	0.00	0.01	(-0.19 0.21)	0.07	0.10	0.00	0.06	(-0.12 0.25)	-0.06	0.10	0.00	-0.06	(-0.25 0.14)
<i>Number of older siblings</i>															
=1 if no older siblings	-0.02	0.07	0.00	-0.02	(-0.15 0.12)	-0.03	0.07	0.00	-0.03	(-0.16 0.10)	0.01	0.07	0.00	0.01	(-0.13 0.14)
=1 if two or more older siblings	0.06	0.09	0.00	0.06	(-0.12 0.23)	0.05	0.08	0.00	0.05	(-0.11 0.21)	0.01	0.09	0.00	0.01	(-0.16 0.18)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	0.24	0.19	0.00	0.24	(-0.13 0.60)	0.14	0.18	0.00	0.13	(-0.21 0.49)	0.26	0.19	0.00	0.26	(-0.10 0.64)
<i>Country where interview took place</i>															
=1 if wales	0.49	0.31	0.00	0.50	(-0.10 1.10)	0.21	0.29	0.00	0.21	(-0.36 0.79)	-0.26	0.30	0.00	-0.26	(-0.84 0.32)
=1 if nireland	-0.05	0.45	0.00	-0.06	(-0.94 0.83)	-0.05	0.44	0.00	-0.04	(-0.93 0.82)	0.02	0.44	0.00	0.02	(-0.85 0.89)
=1 if scotland	-0.13	0.35	0.00	-0.13	(-0.82 0.57)	-0.02	0.34	0.00	-0.02	(-0.68 0.66)	-0.09	0.36	0.00	-0.08	(-0.78 0.61)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	0.15	0.06	0.00	0.15	(0.02 0.26)	-0.13	0.06	0.00	-0.13	(-0.24 -0.02)	0.11	0.06	0.00	0.10	(-0.01 0.23)
<i>Childcare</i>															
=1 if formal childcare	-0.15	0.12	0.00	-0.15	(-0.39 0.10)	0.19	0.12	0.00	0.19	(-0.04 0.42)	-0.04	0.12	0.00	-0.04	(-0.28 0.20)
=1 if informal/ other childcare	0.02	0.09	0.00	0.02	(-0.16 0.20)	-0.02	0.09	0.00	-0.02	(-0.20 0.15)	-0.06	0.09	0.00	-0.06	(-0.25 0.12)
=1 if grandparent care	0.12	0.07	0.00	0.12	(-0.01 0.24)	-0.08	0.06	0.00	-0.08	(-0.20 0.04)	0.02	0.07	0.00	0.02	(-0.11 0.15)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	-0.01	0.07	0.00	-0.01	(-0.14 0.12)	0.01	0.06	0.00	0.01	(-0.11 0.14)	0.04	0.07	0.00	0.04	(-0.09 0.17)
=1 if working full-time	-0.05	0.14	0.00	-0.05	(-0.33 0.24)	0.22	0.13	0.00	0.22	(-0.04 0.48)	0.03	0.14	0.00	0.03	(-0.25 0.31)
<i>How long mother breastfed child</i>															

continued on next page

Table A.3.62 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	-0.14	0.09	0.00	-0.14	(-0.31 0.03)	-0.16	0.08	0.00	-0.16	(-0.32 0.01)	-0.16	0.09	0.00	-0.16	(-0.33 0.02)
<i>If child is naughty...</i>															
=1 if mother smacks child	-0.18	0.20	0.00	-0.18	(-0.58 0.22)	0.64	0.20	0.00	0.64	(0.25 1.03)	-0.41	0.20	0.00	-0.40	(-0.80 -0.01)
=1 if mother tells child off	-0.16	0.05	0.00	-0.16	(-0.26 -0.05)	0.34	0.05	0.00	0.34	(0.24 0.44)	-0.26	0.05	0.00	-0.26	(-0.36 -0.15)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.21	0.08	0.00	0.21	(0.05 0.37)	-0.19	0.08	0.00	-0.19	(-0.34 -0.04)	0.23	0.08	0.00	0.23	(0.07 0.39)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.08	0.07	0.00	-0.08	(-0.21 0.06)	0.23	0.07	0.00	0.23	(0.10 0.36)	-0.24	0.07	0.00	-0.24	(-0.38 -0.10)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.15	0.12	0.00	0.15	(-0.09 0.38)	-0.13	0.11	0.00	-0.13	(-0.34 0.09)	0.32	0.12	0.00	0.32	(0.09 0.56)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.07	0.06	0.00	0.07	(-0.05 0.19)	0.07	0.06	0.00	0.07	(-0.05 0.18)	-0.07	0.06	0.00	-0.07	(-0.19 0.05)
<i>Maternal mental health</i>															
=1 if high distress	-0.33	0.11	0.00	-0.33	(-0.55 -0.11)	0.35	0.11	0.00	0.35	(0.14 0.56)	-0.34	0.11	0.00	-0.34	(-0.56 -0.12)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.08	0.06	0.00	-0.08	(-0.18 0.04)	0.10	0.05	0.00	0.10	(0.00 0.21)	-0.04	0.06	0.00	-0.04	(-0.15 0.07)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.04	0.08	0.00	-0.04	(-0.20 0.12)	-0.05	0.08	0.00	-0.05	(-0.20 0.11)	0.17	0.08	0.00	0.17	(0.02 0.34)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.12	0.09	0.00	-0.12	(-0.29 0.05)	0.13	0.08	0.00	0.13	(-0.04 0.29)	-0.01	0.09	0.00	-0.01	(-0.18 0.17)
=1 if rented (housing association or private)/ other	-0.12	0.08	0.00	-0.12	(-0.28 0.03)	0.14	0.07	0.00	0.14	(-0.01 0.28)	-0.09	0.08	0.00	-0.09	(-0.24 0.07)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.17	0.12	0.00	0.17	(-0.06 0.39)	-0.25	0.11	0.00	-0.25	(-0.47 -0.04)	0.06	0.11	0.00	0.06	(-0.17 0.28)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.05	0.09	0.00	0.05	(-0.13 0.24)	0.23	0.09	0.00	0.23	(0.06 0.41)	-0.06	0.09	0.00	-0.06	(-0.25 0.12)
=1 if managerial/ professional occupation	0.09	0.09	0.00	0.09	(-0.08 0.27)	0.22	0.08	0.00	0.22	(0.06 0.39)	-0.06	0.09	0.00	-0.06	(-0.24 0.10)
=1 if technical, semi-routine or routine occupation	0.14	0.07	0.00	0.14	(0.01 0.28)	0.11	0.06	0.00	0.11	(-0.01 0.24)	-0.02	0.07	0.00	-0.02	(-0.15 0.11)
=1 if can't remember or father died	0.14	0.10	0.00	0.14	(-0.06 0.33)	0.14	0.09	0.00	0.14	(-0.05 0.32)	-0.12	0.10	0.00	-0.12	(-0.31 0.07)
constant	-1.40	0.61	0.01	-1.40	(-2.60 -0.19)	0.54	0.60	0.01	0.54	(-0.63 1.72)	-1.07	0.61	0.01	-1.08	(-2.29 0.09)
σ_ϵ	0.97	0.03	0.00	0.97	(0.90 1.01)	0.91	0.03	0.00	0.91	(0.85 0.96)	0.95	0.03	0.00	0.95	(0.87 1.00)
σ_ζ	0.13	0.11	0.02	0.11	(0.01 0.38)	0.16	0.10	0.01	0.15	(0.03 0.38)	0.19	0.12	0.01	0.17	(0.02 0.45)
$\rho_{\zeta\epsilon}$	0.18	0.58	0.06	0.20	(-0.88 0.99)	-0.14	0.53	0.04	-0.20	(-0.93 0.88)	0.31	0.50	0.04	0.42	(-0.80 0.96)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.63: Bayesian Estimates: CSR and # Hospital Admissions (Eq. 1, TP, Age 5)

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
number of hospital admissions	-0.10	0.04	0.00	-0.10	(-0.18 -0.02)	0.03	0.03	0.00	0.03	(-0.03 0.10)	-0.08	0.04	0.00	-0.07	(-0.17 0.00)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.12	0.03	0.00	0.12	(0.05 0.18)	-0.20	0.03	0.00	-0.20	(-0.26 -0.13)	0.08	0.03	0.00	0.08	(0.01 0.15)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.02	0.03	0.00	-0.02	(-0.08 0.04)	0.05	0.03	0.00	0.05	(-0.00 0.11)	0.01	0.03	0.00	0.01	(-0.05 0.07)
=1 if NVQ level 3	0.02	0.03	0.00	0.02	(-0.04 0.09)	0.02	0.03	0.00	0.02	(-0.05 0.08)	-0.02	0.03	0.00	-0.02	(-0.09 0.05)
=1 if overseas qual. only	-0.10	0.10	0.00	-0.10	(-0.29 0.10)	0.15	0.10	0.00	0.15	(-0.03 0.34)	-0.26	0.10	0.00	-0.26	(-0.46 -0.07)
=1 if none of these	-0.05	0.06	0.00	-0.05	(-0.17 0.06)	0.12	0.06	0.00	0.12	(0.01 0.23)	0.05	0.06	0.00	0.05	(-0.06 0.16)
<i>Mother's age at birth</i>															
=1 if less than 25 years	0.05	0.05	0.00	0.05	(-0.04 0.14)	0.27	0.04	0.00	0.27	(0.18 0.35)	0.02	0.05	0.00	0.01	(-0.07 0.11)
=1 if 25 to 29 years	0.04	0.04	0.00	0.04	(-0.03 0.12)	0.12	0.04	0.00	0.12	(0.05 0.18)	0.07	0.04	0.00	0.07	(-0.01 0.14)
=1 if 30 to 34 years	0.01	0.03	0.00	0.01	(-0.06 0.07)	0.08	0.03	0.00	0.07	(0.01 0.14)	-0.00	0.03	0.00	-0.00	(-0.07 0.06)
<i>Child demography</i>															
=1 if female	0.25	0.02	0.00	0.25	(0.20 0.29)	-0.11	0.02	0.00	-0.11	(-0.15 -0.06)	0.08	0.02	0.00	0.08	(0.03 0.12)
age (years)	0.21	0.05	0.00	0.21	(0.12 0.31)	-0.05	0.05	0.00	-0.05	(-0.14 0.04)	0.08	0.05	0.00	0.08	(-0.01 0.18)
=1 if ethnicity is non-white	-0.09	0.05	0.00	-0.09	(-0.20 0.01)	0.03	0.05	0.00	0.03	(-0.07 0.13)	-0.01	0.05	0.00	-0.01	(-0.12 0.09)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.18	0.05	0.00	-0.18	(-0.28 -0.07)	0.14	0.05	0.00	0.14	(0.04 0.24)	-0.05	0.05	0.00	-0.05	(-0.16 0.06)
<i>Size of household</i>															
log of hh size incl. cm	-0.01	0.07	0.00	-0.01	(-0.15 0.13)	0.19	0.07	0.00	0.19	(0.06 0.34)	-0.11	0.07	0.00	-0.11	(-0.26 0.03)
<i>Number of older siblings</i>															
=1 if no older siblings	-0.02	0.03	0.00	-0.02	(-0.07 0.04)	0.00	0.03	0.00	0.00	(-0.05 0.05)	0.04	0.03	0.00	0.04	(-0.02 0.09)
=1 if two or more older siblings	0.02	0.04	0.00	0.02	(-0.06 0.09)	-0.12	0.04	0.00	-0.12	(-0.19 -0.05)	0.07	0.04	0.00	0.07	(-0.00 0.14)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	0.06	0.10	0.00	0.06	(-0.14 0.26)	0.14	0.10	0.00	0.14	(-0.06 0.33)	-0.11	0.10	0.00	-0.11	(-0.31 0.09)
<i>Country where interview took place</i>															
=1 if wales	-0.11	0.12	0.00	-0.11	(-0.34 0.12)	0.01	0.12	0.00	0.01	(-0.22 0.24)	-0.07	0.12	0.00	-0.07	(-0.31 0.17)
=1 if nireland	0.13	0.26	0.00	0.12	(-0.41 0.64)	0.08	0.26	0.00	0.08	(-0.41 0.59)	0.21	0.26	0.00	0.21	(-0.30 0.73)
=1 if scotland	0.08	0.15	0.00	0.08	(-0.21 0.37)	0.04	0.14	0.00	0.04	(-0.24 0.31)	-0.04	0.15	0.00	-0.04	(-0.33 0.25)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	0.06	0.03	0.00	0.06	(0.01 0.11)	-0.08	0.02	0.00	-0.08	(-0.13 -0.03)	0.04	0.03	0.00	0.04	(-0.01 0.09)
<i>Childcare</i>															
=1 if formal childcare	-0.03	0.05	0.00	-0.03	(-0.13 0.08)	-0.05	0.05	0.00	-0.05	(-0.15 0.05)	0.07	0.05	0.00	0.07	(-0.03 0.17)
=1 if informal/ other childcare	-0.02	0.05	0.00	-0.02	(-0.11 0.06)	0.01	0.04	0.00	0.01	(-0.08 0.09)	0.06	0.05	0.00	0.06	(-0.03 0.15)
=1 if grandparent care	0.02	0.03	0.00	0.02	(-0.04 0.07)	-0.02	0.03	0.00	-0.02	(-0.07 0.04)	0.04	0.03	0.00	0.04	(-0.02 0.09)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	0.06	0.03	0.00	0.06	(0.01 0.11)	-0.03	0.03	0.00	-0.03	(-0.08 0.02)	-0.01	0.03	0.00	-0.01	(-0.06 0.04)
=1 if working full-time	0.16	0.06	0.00	0.16	(0.05 0.26)	0.07	0.05	0.00	0.07	(-0.04 0.17)	-0.01	0.06	0.00	-0.01	(-0.12 0.10)
<i>How long mother breastfed child</i>															

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Table A.3.63 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.03	0.03	0.00	0.03	(-0.03 0.09)	-0.09	0.03	0.00	-0.09	(-0.15 -0.04)	-0.00	0.03	0.00	-0.00	(-0.06 0.06)
<i>If child is naughty...</i>															
=1 if mother smacks child	-0.23	0.10	0.00	-0.23	(-0.43 -0.04)	0.45	0.10	0.00	0.45	(0.26 0.63)	-0.59	0.10	0.00	-0.59	(-0.78 -0.39)
=1 if mother tells child off	-0.25	0.02	0.00	-0.25	(-0.30 -0.21)	0.36	0.02	0.00	0.36	(0.32 0.41)	-0.38	0.02	0.00	-0.38	(-0.43 -0.34)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.13	0.04	0.00	0.13	(0.05 0.21)	-0.27	0.04	0.00	-0.27	(-0.35 -0.19)	0.16	0.04	0.00	0.16	(0.08 0.25)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.05	0.03	0.00	-0.05	(-0.12 0.02)	0.09	0.03	0.00	0.09	(0.03 0.15)	-0.02	0.03	0.00	-0.02	(-0.09 0.05)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.14	0.06	0.00	0.14	(0.02 0.25)	-0.22	0.06	0.00	-0.22	(-0.33 -0.11)	0.05	0.06	0.00	0.05	(-0.06 0.17)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.05	0.03	0.00	0.05	(-0.00 0.11)	0.11	0.03	0.00	0.11	(0.06 0.16)	-0.07	0.03	0.00	-0.07	(-0.13 -0.02)
<i>Maternal mental health</i>															
=1 if high distress	-0.35	0.08	0.00	-0.35	(-0.51 -0.19)	0.47	0.08	0.00	0.47	(0.32 0.62)	-0.41	0.08	0.00	-0.41	(-0.56 -0.25)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.04	0.03	0.00	-0.04	(-0.10 0.02)	0.05	0.03	0.00	0.05	(-0.01 0.11)	-0.04	0.03	0.00	-0.04	(-0.10 0.02)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.04	0.03	0.00	-0.04	(-0.10 0.02)	-0.03	0.03	0.00	-0.03	(-0.09 0.02)	-0.04	0.03	0.00	-0.04	(-0.10 0.01)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.03	0.05	0.00	0.03	(-0.06 0.13)	0.06	0.05	0.00	0.06	(-0.03 0.16)	-0.05	0.05	0.00	-0.05	(-0.15 0.04)
=1 if rented (housing association or private)/ other	0.07	0.04	0.00	0.07	(-0.01 0.15)	0.04	0.04	0.00	0.04	(-0.04 0.12)	-0.03	0.04	0.00	-0.03	(-0.11 0.05)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.05	0.06	0.00	0.05	(-0.07 0.18)	-0.13	0.06	0.00	-0.13	(-0.25 -0.01)	0.12	0.06	0.00	0.12	(-0.01 0.24)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.12	0.05	0.00	-0.12	(-0.22 -0.02)	0.06	0.05	0.00	0.06	(-0.04 0.16)	-0.03	0.05	0.00	-0.03	(-0.13 0.08)
=1 if managerial/ professional occupation	0.07	0.03	0.00	0.08	(0.01 0.14)	-0.00	0.03	0.00	-0.00	(-0.06 0.06)	0.00	0.03	0.00	0.00	(-0.06 0.07)
=1 if technical, semi-routine or routine occupation	-0.01	0.03	0.00	-0.01	(-0.07 0.05)	0.01	0.03	0.00	0.01	(-0.04 0.06)	0.00	0.03	0.00	0.00	(-0.06 0.06)
=1 if can't remember or father died	-0.05	0.05	0.00	-0.05	(-0.15 0.06)	0.04	0.05	0.00	0.04	(-0.06 0.14)	-0.10	0.05	0.00	-0.10	(-0.20 0.01)
constant	-2.26	0.36	0.00	-2.26	(-2.97 -1.57)	1.40	0.34	0.00	1.40	(0.72 2.07)	-0.80	0.36	0.00	-0.80	(-1.49 -0.09)
σ_ϵ	0.94	0.02	0.00	0.94	(0.88 0.98)	0.92	0.03	0.00	0.93	(0.85 0.95)	0.94	0.03	0.00	0.95	(0.87 0.98)
σ_ζ	0.24	0.09	0.02	0.24	(0.10 0.43)	0.17	0.10	0.02	0.15	(0.04 0.41)	0.22	0.10	0.02	0.20	(0.09 0.44)
$\rho_{\zeta\epsilon}$	0.56	0.28	0.03	0.61	(-0.14 0.93)	-0.23	0.37	0.04	-0.22	(-0.92 0.46)	0.49	0.36	0.05	0.52	(-0.26 0.96)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.64: Bayesian Estimates: CSR and # Hospital Admissions (Eq. 2, LP, Age 5)

	CSR IND					CSR EMO					CSR COO							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Standard Background Controls																		
<i>Income</i>																		
log of permanent family income (weekly, imp.)	0.02	0.18	0.01	0.03	(-0.35	0.36)	0.01	0.18	0.01	-0.00	(-0.32	0.36)	0.03	0.18	0.01	0.03	(-0.32	0.38)
<i>Maternal education</i>																		
=1 if NVQ level 1 or 2	-0.32	0.20	0.00	-0.32	(-0.72	0.06)	-0.32	0.20	0.00	-0.32	(-0.71	0.07)	-0.31	0.20	0.00	-0.31	(-0.71	0.08)
=1 if NVQ level 3	-0.21	0.23	0.00	-0.21	(-0.68	0.24)	-0.22	0.23	0.00	-0.22	(-0.68	0.24)	-0.21	0.23	0.00	-0.21	(-0.68	0.25)
=1 if overseas qual. only	-0.52	0.47	0.00	-0.51	(-1.47	0.39)	-0.52	0.47	0.00	-0.51	(-1.47	0.38)	-0.52	0.47	0.00	-0.52	(-1.46	0.39)
=1 if none of these	-0.67	0.28	0.00	-0.67	(-1.22	-0.14)	-0.67	0.27	0.00	-0.67	(-1.21	-0.14)	-0.67	0.28	0.00	-0.67	(-1.23	-0.14)
<i>Mother's age at birth</i>																		
=1 if less than 25 years	0.25	0.28	0.00	0.25	(-0.28	0.81)	0.25	0.28	0.00	0.25	(-0.30	0.80)	0.27	0.28	0.00	0.26	(-0.27	0.82)
=1 if 25 to 29 years	0.24	0.26	0.00	0.23	(-0.26	0.75)	0.24	0.26	0.00	0.24	(-0.26	0.74)	0.25	0.26	0.00	0.25	(-0.24	0.76)
=1 if 30 to 34 years	0.23	0.27	0.00	0.23	(-0.29	0.76)	0.23	0.27	0.00	0.22	(-0.30	0.75)	0.24	0.27	0.00	0.24	(-0.29	0.77)
<i>Child demography</i>																		
=1 if female	-0.40	0.14	0.00	-0.40	(-0.68	-0.12)	-0.40	0.14	0.00	-0.40	(-0.69	-0.12)	-0.41	0.14	0.00	-0.41	(-0.70	-0.13)
age (years)	-0.02	0.28	0.02	-0.02	(-0.58	0.52)	-0.03	0.27	0.02	-0.03	(-0.56	0.50)	-0.05	0.28	0.02	-0.04	(-0.62	0.47)
=1 if ethnicity is non-white	-0.41	0.28	0.00	-0.41	(-0.96	0.12)	-0.42	0.28	0.00	-0.42	(-0.97	0.12)	-0.41	0.28	0.00	-0.41	(-0.98	0.12)
<i>Child's health endowment</i>																		
=1 if birth weight < 2500g	0.42	0.24	0.00	0.42	(-0.06	0.89)	0.42	0.24	0.00	0.42	(-0.05	0.89)	0.42	0.24	0.00	0.42	(-0.05	0.90)
<i>Size of household</i>																		
log of hh size incl. cm	-0.22	0.25	0.01	-0.22	(-0.70	0.27)	-0.20	0.25	0.01	-0.20	(-0.69	0.28)	-0.24	0.26	0.01	-0.24	(-0.75	0.26)
<i>Number of older siblings</i>																		
=1 if no older siblings	-0.21	0.18	0.00	-0.21	(-0.56	0.16)	-0.20	0.18	0.00	-0.20	(-0.57	0.15)	-0.21	0.18	0.00	-0.21	(-0.58	0.15)
=1 if two or more older siblings	-0.12	0.22	0.00	-0.12	(-0.55	0.32)	-0.12	0.22	0.00	-0.12	(-0.56	0.32)	-0.11	0.23	0.00	-0.11	(-0.55	0.32)
<i>Respondent's relationship to child</i>																		
=1 if natural mother of child	0.03	0.53	0.02	0.02	(-0.97	1.10)	0.04	0.52	0.02	0.04	(-0.98	1.08)	0.01	0.53	0.02	0.00	(-1.02	1.06)
<i>Country where interview took place</i>																		
=1 if wales	-0.35	0.52	0.01	-0.34	(-1.37	0.68)	-0.34	0.52	0.01	-0.35	(-1.36	0.68)	-0.36	0.53	0.01	-0.36	(-1.39	0.67)
=1 if nireland	-0.15	0.59	0.01	-0.14	(-1.29	0.98)	-0.17	0.60	0.01	-0.18	(-1.35	0.99)	-0.15	0.59	0.01	-0.15	(-1.33	0.97)
=1 if scotland	-0.50	0.56	0.01	-0.49	(-1.62	0.57)	-0.48	0.56	0.01	-0.47	(-1.57	0.60)	-0.48	0.56	0.01	-0.48	(-1.61	0.62)
Time and Care																		
<i>Time mother spends with child</i>																		
=1 if at least just enough	-0.10	0.19	0.00	-0.10	(-0.46	0.28)	-0.10	0.19	0.00	-0.10	(-0.47	0.27)	-0.10	0.19	0.00	-0.10	(-0.47	0.27)
<i>Childcare</i>																		
=1 if formal childcare	0.04	0.20	0.00	0.04	(-0.35	0.44)	0.04	0.20	0.00	0.04	(-0.36	0.43)	0.04	0.20	0.00	0.04	(-0.36	0.43)
=1 if informal/ other childcare	-0.13	0.34	0.00	-0.13	(-0.80	0.54)	-0.12	0.33	0.00	-0.12	(-0.78	0.52)	-0.13	0.34	0.00	-0.12	(-0.80	0.52)
=1 if grandparent care	-0.12	0.19	0.00	-0.12	(-0.50	0.26)	-0.12	0.19	0.00	-0.12	(-0.49	0.25)	-0.12	0.19	0.00	-0.12	(-0.50	0.26)
<i>Maternal employment (t - 1)</i>																		
=1 if working part-time	0.01	0.18	0.00	0.01	(-0.34	0.37)	0.02	0.18	0.00	0.02	(-0.34	0.37)	0.01	0.18	0.00	0.01	(-0.35	0.37)
=1 if working full-time	-0.09	0.38	0.00	-0.08	(-0.84	0.64)	-0.08	0.38	0.00	-0.07	(-0.82	0.67)	-0.08	0.38	0.00	-0.08	(-0.83	0.66)
<i>How long mother breastfed child</i>																		
=1 if at least 6 months	-0.29	0.25	0.00	-0.29	(-0.78	0.19)	-0.29	0.25	0.00	-0.29	(-0.78	0.19)	-0.28	0.25	0.00	-0.28	(-0.79	0.19)
<i>If child is naughty...</i>																		

continued on next page

Table A.3.64 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.02	0.23	0.00	-0.01	(-0.48 0.44)	-0.01	0.23	0.00	-0.01	(-0.48 0.43)	-0.00	0.23	0.00	-0.00	(-0.47 0.45)
=1 if mother tells child off	-0.30	0.19	0.00	-0.30	(-0.66 0.07)	-0.30	0.19	0.00	-0.30	(-0.66 0.07)	-0.29	0.19	0.00	-0.29	(-0.66 0.07)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	-0.42	0.17	0.00	-0.42	(-0.76 -0.09)	-0.43	0.17	0.00	-0.43	(-0.76 -0.10)	-0.43	0.17	0.00	-0.43	(-0.77 -0.10)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.26	0.19	0.00	-0.26	(-0.63 0.11)	-0.26	0.19	0.00	-0.25	(-0.63 0.11)	-0.25	0.19	0.00	-0.25	(-0.62 0.11)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.01	0.26	0.00	-0.01	(-0.51 0.50)	0.01	0.26	0.00	0.01	(-0.50 0.53)	-0.00	0.26	0.00	-0.00	(-0.50 0.51)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.22	0.16	0.00	0.22	(-0.09 0.54)	0.22	0.16	0.00	0.22	(-0.09 0.54)	0.22	0.16	0.00	0.22	(-0.11 0.54)
<i>Maternal mental health</i>															
=1 if high distress	0.13	0.27	0.00	0.13	(-0.40 0.65)	0.12	0.27	0.00	0.12	(-0.42 0.65)	0.13	0.27	0.00	0.13	(-0.40 0.64)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.05	0.15	0.00	0.05	(-0.25 0.35)	0.05	0.15	0.00	0.05	(-0.26 0.35)	0.05	0.15	0.00	0.05	(-0.25 0.34)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.35	0.24	0.00	-0.34	(-0.82 0.11)	-0.34	0.24	0.00	-0.33	(-0.81 0.12)	-0.34	0.24	0.00	-0.34	(-0.82 0.12)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.31	0.22	0.00	0.31	(-0.12 0.74)	0.30	0.22	0.00	0.30	(-0.11 0.73)	0.31	0.22	0.00	0.31	(-0.11 0.73)
=1 if rented (housing association or private)/ other	0.09	0.20	0.00	0.10	(-0.30 0.49)	0.09	0.20	0.00	0.09	(-0.30 0.48)	0.10	0.20	0.00	0.10	(-0.29 0.49)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.26	0.32	0.01	0.26	(-0.36 0.89)	0.25	0.31	0.01	0.25	(-0.35 0.87)	0.27	0.31	0.01	0.26	(-0.32 0.88)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.25	0.25	0.00	0.25	(-0.23 0.72)	0.24	0.25	0.00	0.24	(-0.26 0.73)	0.25	0.25	0.00	0.25	(-0.25 0.73)
=1 if managerial/ professional occupation	0.14	0.23	0.00	0.14	(-0.31 0.59)	0.15	0.23	0.00	0.15	(-0.31 0.61)	0.15	0.23	0.00	0.15	(-0.32 0.60)
=1 if technical, semi-routine or routine occupation	0.18	0.18	0.00	0.18	(-0.17 0.53)	0.18	0.18	0.00	0.18	(-0.18 0.53)	0.18	0.18	0.00	0.18	(-0.17 0.53)
=1 if can't remember or father died	0.38	0.25	0.00	0.38	(-0.10 0.87)	0.38	0.25	0.00	0.39	(-0.11 0.87)	0.39	0.25	0.00	0.39	(-0.11 0.86)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	-0.19	0.24	0.00	-0.19	(-0.68 0.28)	-0.19	0.25	0.00	-0.19	(-0.68 0.28)	-0.19	0.24	0.00	-0.19	(-0.67 0.28)
constant	-0.72	0.91	0.06	-0.69	(-2.46 1.00)	-0.63	0.89	0.06	-0.61	(-2.40 1.13)	-0.67	0.87	0.05	-0.65	(-2.36 1.05)
α	0.91	0.26	0.01	0.86	(0.54 1.55)	0.92	0.25	0.01	0.87	(0.55 1.52)	0.92	0.28	0.01	0.86	(0.55 1.57)
$\ln\alpha$	-0.13	0.27	0.01	-0.15	(-0.61 0.44)	-0.12	0.26	0.01	-0.14	(-0.60 0.42)	-0.13	0.27	0.01	-0.15	(-0.60 0.45)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.65: Bayesian Estimates: CSR and # Hospital Admissions (Eq. 2, TP, Age 5)

	CSR IND					CSR EMO					CSR COO							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Standard Background Controls																		
<i>Income</i>																		
log of permanent family income (weekly, imp.)	-0.09	0.09	0.01	-0.08	(-0.26	0.08)	-0.09	0.09	0.01	-0.09	(-0.27	0.08)	-0.08	0.09	0.01	-0.09	(-0.26	0.09)
<i>Maternal education</i>																		
=1 if NVQ level 1 or 2	-0.02	0.08	0.00	-0.02	(-0.18	0.14)	-0.02	0.08	0.00	-0.02	(-0.18	0.14)	-0.02	0.09	0.00	-0.02	(-0.18	0.15)
=1 if NVQ level 3	-0.05	0.10	0.00	-0.05	(-0.24	0.14)	-0.05	0.10	0.00	-0.05	(-0.24	0.13)	-0.05	0.10	0.00	-0.05	(-0.24	0.14)
=1 if overseas qual. only	-0.34	0.29	0.00	-0.34	(-0.93	0.22)	-0.34	0.29	0.00	-0.34	(-0.93	0.21)	-0.35	0.29	0.00	-0.35	(-0.94	0.21)
=1 if none of these	0.02	0.15	0.00	0.02	(-0.29	0.30)	0.02	0.15	0.00	0.02	(-0.29	0.31)	0.02	0.15	0.00	0.03	(-0.28	0.32)
<i>Mother's age at birth</i>																		
=1 if less than 25 years	0.26	0.13	0.00	0.26	(0.02	0.51)	0.26	0.12	0.00	0.26	(0.01	0.51)	0.26	0.13	0.00	0.26	(0.02	0.52)
=1 if 25 to 29 years	0.11	0.10	0.00	0.11	(-0.09	0.32)	0.12	0.10	0.00	0.12	(-0.09	0.32)	0.12	0.11	0.00	0.11	(-0.09	0.32)
=1 if 30 to 34 years	0.04	0.10	0.00	0.04	(-0.15	0.23)	0.04	0.10	0.00	0.04	(-0.15	0.23)	0.04	0.10	0.00	0.04	(-0.15	0.23)
<i>Child demography</i>																		
=1 if female	-0.22	0.06	0.00	-0.22	(-0.34	-0.09)	-0.22	0.06	0.00	-0.22	(-0.35	-0.09)	-0.22	0.06	0.00	-0.22	(-0.34	-0.09)
age (years)	0.29	0.16	0.01	0.29	(-0.01	0.62)	0.28	0.15	0.01	0.28	(-0.00	0.59)	0.29	0.15	0.01	0.29	(-0.00	0.61)
=1 if ethnicity is non-white	0.06	0.16	0.00	0.06	(-0.24	0.36)	0.07	0.15	0.00	0.07	(-0.23	0.37)	0.07	0.15	0.00	0.07	(-0.24	0.37)
<i>Child's health endowment</i>																		
=1 if birth weight < 2500g	0.56	0.13	0.00	0.56	(0.29	0.82)	0.57	0.13	0.00	0.57	(0.32	0.82)	0.57	0.13	0.00	0.57	(0.31	0.82)
<i>Size of household</i>																		
log of hh size incl. cm	-0.58	0.20	0.01	-0.58	(-0.96	-0.17)	-0.57	0.19	0.01	-0.56	(-0.95	-0.18)	-0.55	0.19	0.01	-0.55	(-0.94	-0.18)
<i>Number of older siblings</i>																		
=1 if no older siblings	-0.07	0.08	0.00	-0.07	(-0.24	0.09)	-0.07	0.08	0.00	-0.07	(-0.23	0.09)	-0.07	0.08	0.00	-0.07	(-0.23	0.10)
=1 if two or more older siblings	-0.05	0.11	0.00	-0.05	(-0.26	0.16)	-0.05	0.11	0.00	-0.05	(-0.25	0.16)	-0.05	0.11	0.00	-0.05	(-0.26	0.16)
<i>Respondent's relationship to child</i>																		
=1 if natural mother of child	0.63	0.40	0.02	0.63	(-0.15	1.43)	0.60	0.41	0.02	0.59	(-0.16	1.42)	0.60	0.42	0.02	0.59	(-0.21	1.45)
<i>Country where interview took place</i>																		
=1 if wales	0.65	0.33	0.01	0.66	(0.01	1.29)	0.64	0.34	0.01	0.63	(-0.00	1.30)	0.63	0.33	0.01	0.63	(-0.01	1.26)
=1 if nireland	0.01	0.51	0.02	0.01	(-1.01	1.03)	0.06	0.50	0.01	0.05	(-0.89	1.07)	0.02	0.51	0.02	0.01	(-0.98	1.05)
=1 if scotland	0.18	0.40	0.01	0.18	(-0.61	0.97)	0.19	0.41	0.01	0.19	(-0.61	0.97)	0.20	0.41	0.01	0.20	(-0.59	1.03)
Time and Care																		
<i>Time mother spends with child</i>																		
=1 if at least just enough	-0.06	0.08	0.00	-0.06	(-0.22	0.11)	-0.06	0.08	0.00	-0.06	(-0.22	0.10)	-0.06	0.08	0.00	-0.06	(-0.22	0.10)
<i>Childcare</i>																		
=1 if formal childcare	0.10	0.09	0.00	0.10	(-0.07	0.27)	0.10	0.09	0.00	0.09	(-0.08	0.27)	0.09	0.09	0.00	0.09	(-0.09	0.26)
=1 if informal/ other childcare	0.09	0.16	0.00	0.09	(-0.24	0.40)	0.10	0.16	0.00	0.10	(-0.22	0.41)	0.09	0.16	0.00	0.09	(-0.23	0.40)
=1 if grandparent care	-0.05	0.09	0.00	-0.05	(-0.22	0.13)	-0.04	0.09	0.00	-0.04	(-0.22	0.14)	-0.05	0.09	0.00	-0.05	(-0.22	0.13)
<i>Maternal employment (t - 1)</i>																		
=1 if working part-time	-0.07	0.07	0.00	-0.07	(-0.22	0.08)	-0.07	0.07	0.00	-0.07	(-0.22	0.08)	-0.07	0.08	0.00	-0.07	(-0.21	0.08)
=1 if working full-time	0.01	0.14	0.00	0.01	(-0.27	0.29)	-0.00	0.14	0.00	-0.00	(-0.28	0.27)	-0.01	0.14	0.00	-0.01	(-0.29	0.27)
<i>How long mother breastfed child</i>																		
=1 if at least 6 months	-0.18	0.09	0.00	-0.18	(-0.36	-0.01)	-0.18	0.09	0.00	-0.18	(-0.36	-0.01)	-0.18	0.09	0.00	-0.18	(-0.36	-0.01)
<i>If child is naughty...</i>																		

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Table A.3.65 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.01	0.11	0.00	-0.01	(-0.23 0.20)	-0.01	0.11	0.00	-0.01	(-0.23 0.20)	-0.00	0.11	0.00	-0.00	(-0.22 0.21)
=1 if mother tells child off	0.06	0.09	0.00	0.05	(-0.12 0.23)	0.05	0.09	0.00	0.05	(-0.13 0.22)	0.06	0.09	0.00	0.06	(-0.11 0.24)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.03	0.09	0.00	0.03	(-0.14 0.21)	0.04	0.09	0.00	0.04	(-0.13 0.21)	0.03	0.09	0.00	0.03	(-0.13 0.21)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.11	0.10	0.00	-0.10	(-0.29 0.08)	-0.10	0.09	0.00	-0.10	(-0.29 0.08)	-0.10	0.09	0.00	-0.10	(-0.29 0.08)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.08	0.16	0.00	-0.09	(-0.38 0.23)	-0.06	0.15	0.00	-0.07	(-0.35 0.23)	-0.07	0.16	0.00	-0.07	(-0.37 0.24)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.37	0.08	0.00	0.37	(0.22 0.51)	0.37	0.08	0.00	0.37	(0.22 0.52)	0.37	0.07	0.00	0.37	(0.23 0.51)
<i>Maternal mental health</i>															
=1 if high distress	0.37	0.20	0.00	0.37	(-0.03 0.75)	0.34	0.20	0.00	0.34	(-0.05 0.73)	0.36	0.20	0.00	0.36	(-0.04 0.74)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.13	0.08	0.00	0.13	(-0.02 0.29)	0.13	0.08	0.00	0.13	(-0.03 0.29)	0.13	0.08	0.00	0.13	(-0.03 0.28)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.22	0.09	0.00	-0.22	(-0.40 -0.04)	-0.22	0.09	0.00	-0.22	(-0.40 -0.04)	-0.22	0.09	0.00	-0.22	(-0.40 -0.04)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.08	0.13	0.00	-0.08	(-0.33 0.16)	-0.08	0.13	0.00	-0.08	(-0.32 0.17)	-0.08	0.13	0.00	-0.07	(-0.32 0.18)
=1 if rented (housing association or private)/ other	-0.08	0.11	0.00	-0.08	(-0.31 0.13)	-0.08	0.11	0.00	-0.08	(-0.30 0.13)	-0.08	0.11	0.00	-0.08	(-0.30 0.13)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	-0.06	0.21	0.01	-0.05	(-0.46 0.35)	-0.05	0.21	0.01	-0.05	(-0.44 0.38)	-0.04	0.21	0.01	-0.04	(-0.44 0.38)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.19	0.14	0.00	-0.19	(-0.47 0.09)	-0.19	0.14	0.00	-0.19	(-0.47 0.09)	-0.19	0.14	0.00	-0.19	(-0.48 0.09)
=1 if managerial/ professional occupation	-0.17	0.09	0.00	-0.17	(-0.35 0.01)	-0.17	0.09	0.00	-0.17	(-0.35 0.01)	-0.17	0.09	0.00	-0.17	(-0.36 0.01)
=1 if technical, semi-routine or routine occupation	-0.07	0.08	0.00	-0.07	(-0.23 0.08)	-0.07	0.08	0.00	-0.07	(-0.23 0.08)	-0.07	0.08	0.00	-0.07	(-0.23 0.08)
=1 if can't remember or father died	-0.10	0.15	0.00	-0.10	(-0.39 0.19)	-0.10	0.15	0.00	-0.10	(-0.39 0.19)	-0.10	0.15	0.00	-0.10	(-0.39 0.18)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	0.26	0.14	0.00	0.26	(-0.01 0.52)	0.26	0.14	0.00	0.26	(-0.02 0.52)	0.26	0.14	0.00	0.26	(-0.01 0.52)
constant	-2.04	0.69	0.06	-2.02	(-3.39 -0.63)	-1.97	0.66	0.06	-1.93	(-3.32 -0.75)	-2.08	0.69	0.07	-2.03	(-3.46 -0.85)
α	1.34	0.23	0.01	1.31	(0.97 1.88)	1.33	0.24	0.01	1.30	(0.95 1.90)	1.36	0.25	0.01	1.33	(0.96 1.96)
$\ln\alpha$	0.28	0.17	0.01	0.27	(-0.03 0.63)	0.27	0.18	0.01	0.27	(-0.05 0.64)	0.29	0.18	0.01	0.29	(-0.04 0.67)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.66: Bayesian Estimates: CSR and SDQ HA (Eq. 1, LP, Age 5)

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
hyperactivity/inattention	-0.17	0.03	0.00	-0.17	(-0.22 -0.12)	0.19	0.02	0.00	0.19	(0.14 0.23)	-0.19	0.02	0.00	-0.19	(-0.23 -0.15)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.08	0.08	0.00	0.08	(-0.08 0.24)	-0.10	0.08	0.00	-0.10	(-0.25 0.05)	-0.08	0.08	0.00	-0.08	(-0.24 0.08)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.08	0.08	0.00	-0.08	(-0.24 0.08)	0.11	0.08	0.00	0.11	(-0.04 0.25)	-0.06	0.08	0.00	-0.06	(-0.22 0.10)
=1 if NVQ level 3	-0.06	0.09	0.00	-0.06	(-0.24 0.13)	-0.08	0.09	0.00	-0.08	(-0.26 0.10)	-0.02	0.09	0.00	-0.02	(-0.21 0.16)
=1 if overseas qual. only	0.05	0.19	0.00	0.06	(-0.33 0.43)	0.19	0.18	0.00	0.19	(-0.17 0.55)	-0.05	0.19	0.00	-0.05	(-0.43 0.33)
=1 if none of these	-0.08	0.12	0.00	-0.08	(-0.31 0.15)	0.20	0.11	0.00	0.20	(-0.02 0.42)	0.05	0.12	0.00	0.05	(-0.18 0.28)
<i>Mother's age at birth</i>															
=1 if less than 25 years	0.18	0.12	0.00	0.18	(-0.05 0.42)	0.16	0.12	0.00	0.16	(-0.07 0.39)	-0.05	0.12	0.00	-0.05	(-0.29 0.20)
=1 if 25 to 29 years	0.11	0.11	0.00	0.11	(-0.10 0.33)	0.09	0.11	0.00	0.09	(-0.11 0.30)	-0.09	0.11	0.00	-0.09	(-0.31 0.13)
=1 if 30 to 34 years	0.03	0.11	0.00	0.03	(-0.19 0.26)	-0.10	0.11	0.00	-0.09	(-0.31 0.11)	-0.08	0.11	0.00	-0.08	(-0.31 0.14)
<i>Child demography</i>															
=1 if female	0.11	0.06	0.00	0.11	(-0.01 0.23)	0.00	0.06	0.00	0.00	(-0.11 0.12)	0.02	0.06	0.00	0.02	(-0.10 0.14)
age (years)	0.12	0.11	0.00	0.12	(-0.09 0.32)	-0.09	0.10	0.00	-0.09	(-0.29 0.11)	0.26	0.10	0.00	0.26	(0.06 0.46)
=1 if ethnicity is non-white	0.15	0.11	0.00	0.15	(-0.08 0.37)	0.24	0.11	0.00	0.24	(0.02 0.45)	0.00	0.12	0.00	0.00	(-0.23 0.23)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	0.03	0.12	0.00	0.03	(-0.20 0.26)	-0.09	0.11	0.00	-0.09	(-0.31 0.13)	0.04	0.12	0.00	0.05	(-0.19 0.28)
<i>Size of household</i>															
log of hh size incl. cm	-0.08	0.11	0.00	-0.08	(-0.31 0.15)	0.07	0.11	0.00	0.08	(-0.13 0.28)	-0.07	0.11	0.00	-0.07	(-0.29 0.16)
<i>Number of older siblings</i>															
=1 if no older siblings	0.00	0.08	0.00	0.00	(-0.15 0.15)	-0.01	0.07	0.00	-0.01	(-0.16 0.13)	0.02	0.08	0.00	0.02	(-0.13 0.17)
=1 if two or more older siblings	0.11	0.10	0.00	0.11	(-0.08 0.30)	0.04	0.09	0.00	0.04	(-0.14 0.23)	0.01	0.10	0.00	0.01	(-0.18 0.20)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	0.01	0.20	0.00	0.01	(-0.37 0.40)	0.12	0.19	0.00	0.12	(-0.26 0.48)	0.13	0.20	0.00	0.13	(-0.27 0.51)
<i>Country where interview took place</i>															
=1 if wales	0.18	0.35	0.00	0.19	(-0.50 0.88)	0.25	0.34	0.00	0.25	(-0.39 0.92)	-0.06	0.35	0.00	-0.06	(-0.74 0.63)
=1 if nireland	-0.12	0.45	0.00	-0.11	(-1.01 0.76)	0.03	0.44	0.00	0.03	(-0.83 0.89)	-0.03	0.44	0.00	-0.03	(-0.89 0.84)
=1 if scotland	-0.26	0.37	0.00	-0.27	(-0.99 0.47)	0.15	0.36	0.00	0.15	(-0.56 0.86)	-0.23	0.37	0.00	-0.23	(-0.94 0.51)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	0.11	0.07	0.00	0.11	(-0.01 0.24)	-0.10	0.06	0.00	-0.10	(-0.22 0.02)	0.10	0.07	0.00	0.10	(-0.03 0.23)
<i>Childcare</i>															
=1 if formal childcare	-0.16	0.13	0.00	-0.16	(-0.42 0.09)	0.08	0.12	0.00	0.08	(-0.16 0.33)	0.06	0.13	0.00	0.06	(-0.19 0.32)
=1 if informal/ other childcare	0.03	0.10	0.00	0.03	(-0.17 0.23)	-0.09	0.10	0.00	-0.09	(-0.28 0.10)	-0.02	0.10	0.00	-0.02	(-0.22 0.18)
=1 if grandparent care	0.03	0.07	0.00	0.03	(-0.10 0.17)	-0.02	0.07	0.00	-0.02	(-0.15 0.11)	-0.01	0.07	0.00	-0.01	(-0.15 0.12)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	-0.04	0.07	0.00	-0.04	(-0.18 0.10)	0.02	0.07	0.00	0.02	(-0.12 0.15)	0.03	0.07	0.00	0.03	(-0.11 0.17)
=1 if working full-time	-0.06	0.15	0.00	-0.06	(-0.36 0.23)	0.12	0.14	0.00	0.12	(-0.17 0.40)	0.05	0.15	0.00	0.05	(-0.24 0.35)
<i>How long mother breastfed child</i>															

continued on next page

Table A.3.66 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	-0.22	0.10	0.00	-0.21	(-0.42 -0.01)	-0.12	0.10	0.00	-0.12	(-0.32 0.07)	-0.25	0.10	0.00	-0.25	(-0.45 -0.05)
<i>If child is naughty...</i>															
=1 if mother smacks child	0.08	0.21	0.00	0.08	(-0.33 0.49)	0.50	0.20	0.00	0.49	(0.09 0.90)	-0.15	0.21	0.00	-0.15	(-0.57 0.27)
=1 if mother tells child off	-0.11	0.06	0.00	-0.11	(-0.23 0.01)	0.23	0.06	0.00	0.23	(0.12 0.34)	-0.14	0.06	0.00	-0.14	(-0.26 -0.02)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.19	0.09	0.00	0.19	(0.02 0.37)	-0.15	0.09	0.00	-0.15	(-0.31 0.02)	0.20	0.09	0.00	0.20	(0.03 0.38)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.03	0.07	0.00	-0.03	(-0.18 0.11)	0.18	0.07	0.00	0.18	(0.04 0.32)	-0.22	0.07	0.00	-0.22	(-0.36 -0.07)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.13	0.13	0.00	0.13	(-0.12 0.38)	-0.17	0.12	0.00	-0.17	(-0.41 0.07)	0.38	0.13	0.00	0.38	(0.13 0.63)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.08	0.07	0.00	0.08	(-0.05 0.21)	0.02	0.07	0.00	0.02	(-0.11 0.15)	-0.01	0.07	0.00	-0.01	(-0.14 0.12)
<i>Maternal mental health</i>															
=1 if high distress	-0.12	0.13	0.00	-0.12	(-0.37 0.13)	0.17	0.12	0.00	0.17	(-0.06 0.40)	-0.17	0.13	0.00	-0.17	(-0.42 0.07)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.00	0.06	0.00	-0.00	(-0.12 0.12)	0.04	0.06	0.00	0.04	(-0.07 0.15)	0.06	0.06	0.00	0.06	(-0.06 0.18)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.03	0.09	0.00	-0.03	(-0.20 0.15)	-0.00	0.08	0.00	-0.00	(-0.16 0.16)	0.17	0.09	0.00	0.17	(-0.00 0.34)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.03	0.09	0.00	-0.03	(-0.21 0.16)	0.11	0.09	0.00	0.11	(-0.07 0.28)	0.02	0.10	0.00	0.02	(-0.17 0.21)
=1 if rented (housing association or private)/ other	-0.04	0.08	0.00	-0.04	(-0.20 0.12)	0.07	0.08	0.00	0.07	(-0.09 0.22)	-0.06	0.08	0.00	-0.06	(-0.22 0.11)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.19	0.12	0.00	0.19	(-0.05 0.42)	-0.21	0.12	0.00	-0.21	(-0.44 0.02)	-0.02	0.12	0.00	-0.02	(-0.26 0.21)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.12	0.11	0.00	0.12	(-0.09 0.33)	0.17	0.10	0.00	0.17	(-0.03 0.37)	0.05	0.11	0.00	0.05	(-0.16 0.26)
=1 if managerial/ professional occupation	0.13	0.09	0.00	0.13	(-0.05 0.32)	0.22	0.09	0.00	0.22	(0.04 0.40)	0.02	0.10	0.00	0.02	(-0.17 0.21)
=1 if technical, semi-routine or routine occupation	0.18	0.07	0.00	0.18	(0.04 0.32)	0.06	0.07	0.00	0.06	(-0.08 0.19)	0.06	0.07	0.00	0.06	(-0.08 0.21)
=1 if can't remember or father died	0.21	0.11	0.00	0.21	(0.01 0.43)	0.10	0.11	0.00	0.10	(-0.11 0.30)	-0.01	0.11	0.00	-0.01	(-0.23 0.20)
constant	-0.92	0.65	0.01	-0.92	(-2.20 0.36)	0.16	0.62	0.01	0.15	(-1.10 1.39)	-0.63	0.65	0.01	-0.63	(-1.89 0.65)
σ_ϵ	0.88	0.04	0.00	0.89	(0.79 0.96)	0.79	0.04	0.00	0.79	(0.69 0.87)	0.82	0.05	0.00	0.82	(0.72 0.90)
σ_ζ	0.36	0.12	0.01	0.37	(0.11 0.57)	0.48	0.09	0.00	0.48	(0.30 0.64)	0.52	0.09	0.00	0.52	(0.34 0.68)
$\rho_{\zeta\xi}$	0.80	0.19	0.01	0.86	(0.34 0.99)	-0.93	0.07	0.00	-0.95	(-1.00 -0.74)	0.93	0.07	0.00	0.95	(0.74 1.00)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.67: Bayesian Estimates: CSR and SDQ HA (Eq. 1, TP, Age 5)

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
hyperactivity/inattention	-0.18	0.01	0.00	-0.18	(-0.20 -0.15)	0.26	0.01	0.00	0.26	(0.24 0.28)	-0.25	0.01	0.00	-0.25	(-0.28 -0.23)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.04	0.04	0.00	0.04	(-0.04 0.11)	-0.09	0.04	0.00	-0.09	(-0.16 -0.02)	-0.02	0.04	0.00	-0.02	(-0.09 0.05)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	0.03	0.03	0.00	0.03	(-0.04 0.09)	-0.02	0.03	0.00	-0.02	(-0.08 0.05)	0.08	0.03	0.00	0.08	(0.01 0.14)
=1 if NVQ level 3	0.08	0.04	0.00	0.08	(0.01 0.16)	-0.05	0.04	0.00	-0.05	(-0.12 0.02)	0.03	0.04	0.00	0.03	(-0.04 0.11)
=1 if overseas qual. only	0.08	0.11	0.00	0.08	(-0.15 0.30)	0.11	0.11	0.00	0.11	(-0.11 0.33)	-0.30	0.12	0.00	-0.30	(-0.53 -0.06)
=1 if none of these	0.04	0.07	0.00	0.04	(-0.10 0.17)	0.01	0.07	0.00	0.01	(-0.12 0.14)	0.13	0.07	0.00	0.13	(-0.00 0.27)
<i>Mother's age at birth</i>															
=1 if less than 25 years	0.09	0.05	0.00	0.09	(-0.01 0.19)	0.21	0.05	0.00	0.21	(0.11 0.30)	0.12	0.05	0.00	0.12	(0.02 0.22)
=1 if 25 to 29 years	0.05	0.04	0.00	0.05	(-0.03 0.13)	0.08	0.04	0.00	0.08	(-0.00 0.15)	0.13	0.04	0.00	0.13	(0.05 0.22)
=1 if 30 to 34 years	0.01	0.04	0.00	0.01	(-0.06 0.08)	0.06	0.04	0.00	0.06	(-0.01 0.13)	0.06	0.04	0.00	0.06	(-0.02 0.13)
<i>Child demography</i>															
=1 if female	0.17	0.03	0.00	0.17	(0.12 0.22)	0.02	0.03	0.00	0.02	(-0.03 0.08)	-0.08	0.03	0.00	-0.08	(-0.14 -0.03)
age (years)	0.27	0.05	0.00	0.27	(0.17 0.37)	-0.08	0.05	0.00	-0.08	(-0.17 0.02)	0.12	0.05	0.00	0.12	(0.01 0.21)
=1 if ethnicity is non-white	-0.07	0.06	0.00	-0.07	(-0.19 0.05)	-0.06	0.06	0.00	-0.06	(-0.18 0.06)	0.04	0.06	0.00	0.04	(-0.09 0.16)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.15	0.06	0.00	-0.15	(-0.27 -0.03)	0.02	0.06	0.00	0.02	(-0.10 0.13)	-0.00	0.06	0.00	-0.00	(-0.13 0.13)
<i>Size of household</i>															
log of hh size incl. cm	-0.06	0.08	0.00	-0.06	(-0.22 0.10)	0.24	0.08	0.00	0.24	(0.09 0.39)	-0.20	0.08	0.00	-0.20	(-0.36 -0.04)
<i>Number of older siblings</i>															
=1 if no older siblings	-0.02	0.03	0.00	-0.02	(-0.08 0.04)	-0.01	0.03	0.00	-0.01	(-0.06 0.05)	0.04	0.03	0.00	0.04	(-0.03 0.10)
=1 if two or more older siblings	-0.03	0.04	0.00	-0.03	(-0.11 0.05)	-0.05	0.04	0.00	-0.05	(-0.13 0.03)	0.03	0.04	0.00	0.03	(-0.06 0.11)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	0.11	0.11	0.00	0.11	(-0.11 0.32)	0.10	0.11	0.00	0.10	(-0.10 0.31)	-0.02	0.11	0.00	-0.02	(-0.24 0.20)
<i>Country where interview took place</i>															
=1 if wales	-0.08	0.13	0.00	-0.08	(-0.34 0.17)	-0.12	0.13	0.00	-0.12	(-0.37 0.13)	0.07	0.13	0.00	0.07	(-0.19 0.32)
=1 if nireland	0.23	0.29	0.00	0.23	(-0.34 0.80)	0.13	0.28	0.00	0.13	(-0.42 0.69)	0.11	0.29	0.00	0.11	(-0.46 0.68)
=1 if scotland	0.00	0.16	0.00	0.01	(-0.31 0.31)	0.12	0.15	0.00	0.12	(-0.17 0.42)	-0.12	0.16	0.00	-0.12	(-0.43 0.18)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	0.02	0.03	0.00	0.02	(-0.03 0.08)	-0.03	0.03	0.00	-0.03	(-0.08 0.02)	-0.00	0.03	0.00	-0.00	(-0.06 0.05)
<i>Childcare</i>															
=1 if formal childcare	-0.03	0.06	0.00	-0.03	(-0.13 0.08)	-0.07	0.05	0.00	-0.07	(-0.18 0.03)	0.09	0.06	0.00	0.09	(-0.02 0.20)
=1 if informal/ other childcare	-0.00	0.05	0.00	-0.00	(-0.10 0.09)	-0.09	0.05	0.00	-0.09	(-0.18 0.00)	0.17	0.05	0.00	0.17	(0.07 0.27)
=1 if grandparent care	0.02	0.03	0.00	0.02	(-0.04 0.08)	0.00	0.03	0.00	0.00	(-0.06 0.06)	0.02	0.03	0.00	0.02	(-0.04 0.08)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	0.05	0.03	0.00	0.05	(-0.01 0.10)	-0.02	0.03	0.00	-0.02	(-0.08 0.03)	-0.02	0.03	0.00	-0.02	(-0.08 0.03)
=1 if working full-time	0.10	0.06	0.00	0.10	(-0.02 0.21)	0.10	0.06	0.00	0.10	(-0.01 0.21)	-0.05	0.06	0.00	-0.05	(-0.17 0.06)
<i>How long mother breastfed child</i>															

continued on next page

Table A.3.67 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months <i>If child is naughty...</i>	-0.03	0.03	0.00	-0.03	(-0.09 0.04)	-0.01	0.03	0.00	-0.01	(-0.07 0.05)	-0.12	0.03	0.00	-0.12	(-0.19 -0.05)
=1 if mother smacks child	-0.19	0.11	0.00	-0.19	(-0.40 0.03)	0.41	0.11	0.00	0.41	(0.21 0.62)	-0.46	0.11	0.00	-0.46	(-0.67 -0.25)
=1 if mother tells child off	-0.13	0.03	0.00	-0.13	(-0.18 -0.08)	0.22	0.03	0.00	0.22	(0.17 0.26)	-0.24	0.03	0.00	-0.24	(-0.29 -0.19)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.12	0.05	0.00	0.12	(0.03 0.21)	-0.17	0.04	0.00	-0.17	(-0.26 -0.09)	0.12	0.05	0.00	0.12	(0.03 0.21)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.03	0.04	0.00	-0.03	(-0.10 0.04)	0.05	0.03	0.00	0.05	(-0.02 0.11)	0.01	0.04	0.00	0.01	(-0.06 0.08)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.04	0.06	0.00	0.04	(-0.08 0.17)	-0.13	0.06	0.00	-0.13	(-0.25 -0.01)	-0.02	0.06	0.00	-0.02	(-0.14 0.11)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.07	0.03	0.00	0.07	(0.01 0.13)	0.10	0.03	0.00	0.10	(0.04 0.15)	-0.07	0.03	0.00	-0.07	(-0.12 -0.01)
<i>Maternal mental health</i>															
=1 if high distress	-0.38	0.09	0.00	-0.38	(-0.56 -0.21)	0.31	0.08	0.00	0.31	(0.15 0.48)	-0.29	0.09	0.00	-0.29	(-0.46 -0.12)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.02	0.03	0.00	-0.02	(-0.08 0.05)	-0.01	0.03	0.00	-0.01	(-0.07 0.06)	0.00	0.03	0.00	0.00	(-0.06 0.07)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.03	0.03	0.00	-0.03	(-0.09 0.03)	-0.05	0.03	0.00	-0.05	(-0.11 0.01)	-0.02	0.03	0.00	-0.02	(-0.09 0.04)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.08	0.06	0.00	0.08	(-0.03 0.18)	-0.01	0.05	0.00	-0.01	(-0.12 0.09)	-0.01	0.06	0.00	-0.01	(-0.12 0.10)
=1 if rented (housing association or private)/ other	0.10	0.05	0.00	0.10	(0.01 0.18)	-0.01	0.04	0.00	-0.01	(-0.10 0.08)	0.03	0.05	0.00	0.03	(-0.06 0.12)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.01	0.07	0.00	0.01	(-0.12 0.15)	-0.03	0.07	0.00	-0.03	(-0.17 0.10)	0.06	0.07	0.00	0.06	(-0.07 0.20)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.10	0.06	0.00	-0.10	(-0.22 0.02)	-0.05	0.06	0.00	-0.05	(-0.17 0.06)	0.02	0.06	0.00	0.02	(-0.10 0.14)
=1 if managerial/ professional occupation	0.05	0.04	0.00	0.05	(-0.02 0.12)	0.05	0.03	0.00	0.05	(-0.01 0.12)	-0.04	0.04	0.00	-0.04	(-0.11 0.03)
=1 if technical, semi-routine or routine occupation	-0.01	0.03	0.00	-0.01	(-0.07 0.05)	-0.00	0.03	0.00	-0.00	(-0.07 0.06)	0.03	0.03	0.00	0.03	(-0.04 0.09)
=1 if can't remember or father died	-0.02	0.06	0.00	-0.02	(-0.13 0.10)	-0.04	0.06	0.00	-0.04	(-0.15 0.08)	-0.01	0.06	0.00	-0.01	(-0.13 0.11)
constant	-1.30	0.39	0.00	-1.31	(-2.05 -0.53)	-0.35	0.37	0.00	-0.35	(-1.08 0.39)	0.74	0.39	0.00	0.74	(-0.04 1.50)
σ_ϵ	0.87	0.03	0.00	0.87	(0.80 0.92)	0.69	0.03	0.00	0.69	(0.62 0.75)	0.70	0.03	0.00	0.70	(0.63 0.76)
σ_ζ	0.41	0.06	0.00	0.41	(0.29 0.54)	0.66	0.04	0.00	0.66	(0.57 0.74)	0.72	0.04	0.00	0.72	(0.64 0.80)
$\rho_{\zeta\xi}$	0.87	0.09	0.01	0.89	(0.65 0.99)	-0.97	0.02	0.00	-0.98	(-1.00 -0.91)	0.98	0.02	0.00	0.99	(0.94 1.00)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.68: Bayesian Estimates: CSR and SDQ HA (Eq. 2, LP, Age 5)

	CSR IND					CSR EMO					CSR COO							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Standard Background Controls																		
<i>Income</i>																		
log of permanent family income (weekly, imp.)	0.25	0.16	0.00	0.25	(-0.05	0.56)	0.26	0.16	0.00	0.26	(-0.05	0.56)	0.24	0.15	0.00	0.24	(-0.07	0.54)
<i>Maternal education</i>																		
=1 if NVQ level 1 or 2	0.31	0.18	0.00	0.31	(-0.04	0.66)	0.31	0.17	0.00	0.31	(-0.03	0.64)	0.32	0.17	0.00	0.31	(-0.02	0.66)
=1 if NVQ level 3	0.40	0.20	0.00	0.40	(-0.00	0.80)	0.41	0.20	0.00	0.41	(0.02	0.80)	0.41	0.20	0.00	0.41	(0.03	0.80)
=1 if overseas qual. only	0.72	0.40	0.00	0.72	(-0.06	1.50)	0.69	0.40	0.00	0.68	(-0.11	1.47)	0.71	0.40	0.00	0.71	(-0.09	1.50)
=1 if none of these	0.18	0.24	0.00	0.18	(-0.31	0.65)	0.18	0.24	0.00	0.18	(-0.29	0.65)	0.19	0.24	0.00	0.19	(-0.28	0.66)
<i>Mother's age at birth</i>																		
=1 if less than 25 years	0.68	0.25	0.00	0.68	(0.20	1.16)	0.65	0.25	0.00	0.65	(0.17	1.13)	0.68	0.25	0.00	0.68	(0.19	1.18)
=1 if 25 to 29 years	0.42	0.23	0.00	0.42	(-0.02	0.86)	0.41	0.23	0.00	0.41	(-0.03	0.85)	0.41	0.23	0.00	0.41	(-0.04	0.86)
=1 if 30 to 34 years	0.36	0.23	0.00	0.36	(-0.09	0.81)	0.35	0.23	0.00	0.35	(-0.10	0.80)	0.35	0.24	0.00	0.35	(-0.11	0.81)
<i>Child demography</i>																		
=1 if female	-0.58	0.13	0.00	-0.58	(-0.82	-0.33)	-0.58	0.12	0.00	-0.58	(-0.82	-0.33)	-0.58	0.12	0.00	-0.58	(-0.82	-0.34)
age (years)	0.12	0.25	0.00	0.12	(-0.37	0.60)	0.11	0.24	0.00	0.11	(-0.35	0.59)	0.14	0.24	0.00	0.14	(-0.33	0.62)
=1 if ethnicity is non-white	0.26	0.24	0.00	0.26	(-0.20	0.74)	0.28	0.23	0.00	0.28	(-0.18	0.74)	0.25	0.23	0.00	0.25	(-0.20	0.71)
<i>Child's health endowment</i>																		
=1 if birth weight < 2500g	0.50	0.29	0.00	0.50	(-0.05	1.06)	0.60	0.28	0.00	0.61	(0.04	1.17)	0.53	0.28	0.00	0.53	(-0.02	1.09)
<i>Size of household</i>																		
log of hh size incl. cm	-0.16	0.23	0.00	-0.15	(-0.59	0.30)	-0.13	0.22	0.00	-0.13	(-0.58	0.30)	-0.21	0.22	0.00	-0.21	(-0.64	0.23)
<i>Number of older siblings</i>																		
=1 if no older siblings	-0.06	0.16	0.00	-0.06	(-0.38	0.24)	-0.07	0.16	0.00	-0.07	(-0.38	0.25)	-0.09	0.16	0.00	-0.08	(-0.39	0.22)
=1 if two or more older siblings	0.30	0.20	0.00	0.30	(-0.09	0.70)	0.26	0.20	0.00	0.26	(-0.14	0.65)	0.31	0.20	0.00	0.31	(-0.08	0.70)
<i>Respondent's relationship to child</i>																		
=1 if natural mother of child	0.38	0.47	0.00	0.37	(-0.53	1.30)	0.37	0.46	0.00	0.36	(-0.54	1.28)	0.35	0.47	0.00	0.35	(-0.58	1.25)
<i>Country where interview took place</i>																		
=1 if wales	-0.52	0.53	0.01	-0.52	(-1.54	0.51)	-0.54	0.52	0.01	-0.54	(-1.57	0.46)	-0.52	0.52	0.01	-0.52	(-1.54	0.52)
=1 if nireland	0.11	0.58	0.01	0.12	(-1.02	1.25)	0.13	0.57	0.01	0.12	(-0.98	1.27)	0.14	0.57	0.01	0.14	(-0.99	1.26)
=1 if scotland	-0.23	0.52	0.01	-0.23	(-1.25	0.79)	-0.20	0.52	0.01	-0.19	(-1.22	0.81)	-0.14	0.52	0.01	-0.13	(-1.15	0.87)
Time and Care																		
<i>Time mother spends with child</i>																		
=1 if at least just enough	-0.02	0.16	0.00	-0.02	(-0.34	0.30)	-0.00	0.16	0.00	-0.00	(-0.32	0.31)	-0.03	0.16	0.00	-0.03	(-0.34	0.28)
<i>Childcare</i>																		
=1 if formal childcare	0.30	0.18	0.00	0.30	(-0.05	0.64)	0.21	0.17	0.00	0.21	(-0.13	0.54)	0.26	0.17	0.00	0.26	(-0.07	0.59)
=1 if informal/ other childcare	0.03	0.28	0.00	0.03	(-0.53	0.59)	-0.00	0.28	0.00	-0.01	(-0.54	0.54)	-0.09	0.28	0.00	-0.09	(-0.62	0.46)
=1 if grandparent care	0.04	0.16	0.00	0.04	(-0.28	0.37)	0.01	0.16	0.00	0.01	(-0.30	0.33)	0.01	0.16	0.00	0.00	(-0.31	0.32)
<i>Maternal employment (t - 1)</i>																		
=1 if working part-time	-0.08	0.15	0.00	-0.08	(-0.38	0.23)	-0.08	0.15	0.00	-0.08	(-0.38	0.22)	-0.04	0.15	0.00	-0.04	(-0.33	0.26)
=1 if working full-time	0.09	0.32	0.00	0.09	(-0.53	0.72)	0.18	0.31	0.00	0.18	(-0.43	0.80)	0.22	0.30	0.00	0.22	(-0.37	0.82)
<i>How long mother breastfed child</i>																		
=1 if at least 6 months	-0.28	0.21	0.00	-0.28	(-0.68	0.14)	-0.27	0.21	0.00	-0.27	(-0.70	0.14)	-0.28	0.21	0.00	-0.28	(-0.68	0.13)
<i>If child is naughty...</i>																		

continued on next page

Table A.3.68 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.46	0.22	0.00	0.46	(0.05 0.89)	0.42	0.21	0.00	0.42	(-0.00 0.84)	0.46	0.21	0.00	0.46	(0.06 0.87)
=1 if mother tells child off	0.29	0.21	0.00	0.29	(-0.11 0.70)	0.30	0.20	0.00	0.30	(-0.09 0.70)	0.25	0.20	0.00	0.25	(-0.14 0.65)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	-0.10	0.15	0.00	-0.10	(-0.40 0.20)	-0.20	0.15	0.00	-0.20	(-0.49 0.09)	-0.14	0.15	0.00	-0.13	(-0.42 0.15)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	0.14	0.16	0.00	0.14	(-0.18 0.45)	0.16	0.16	0.00	0.16	(-0.15 0.47)	0.16	0.16	0.00	0.15	(-0.15 0.46)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.25	0.23	0.00	-0.25	(-0.72 0.20)	-0.21	0.23	0.00	-0.21	(-0.66 0.24)	-0.25	0.23	0.00	-0.25	(-0.70 0.20)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	-0.09	0.14	0.00	-0.09	(-0.37 0.19)	-0.08	0.14	0.00	-0.07	(-0.36 0.20)	-0.11	0.14	0.00	-0.11	(-0.39 0.17)
<i>Maternal mental health</i>															
=1 if high distress	0.43	0.25	0.00	0.43	(-0.06 0.92)	0.47	0.25	0.00	0.47	(-0.03 0.96)	0.45	0.25	0.00	0.45	(-0.05 0.93)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.35	0.15	0.00	0.35	(0.05 0.66)	0.36	0.15	0.00	0.36	(0.06 0.66)	0.37	0.15	0.00	0.37	(0.08 0.67)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.30	0.20	0.00	-0.30	(-0.70 0.09)	-0.35	0.20	0.00	-0.34	(-0.73 0.03)	-0.32	0.19	0.00	-0.32	(-0.70 0.06)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.08	0.19	0.00	0.08	(-0.30 0.45)	0.04	0.19	0.00	0.04	(-0.32 0.41)	0.07	0.19	0.00	0.07	(-0.31 0.44)
=1 if rented (housing association or private)/ other	0.29	0.17	0.00	0.29	(-0.05 0.63)	0.24	0.17	0.00	0.24	(-0.09 0.57)	0.26	0.17	0.00	0.26	(-0.08 0.59)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	-0.33	0.25	0.00	-0.32	(-0.82 0.17)	-0.32	0.25	0.00	-0.33	(-0.80 0.16)	-0.25	0.24	0.00	-0.25	(-0.72 0.23)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.34	0.22	0.00	0.34	(-0.09 0.77)	0.32	0.22	0.00	0.32	(-0.11 0.76)	0.34	0.22	0.00	0.34	(-0.09 0.77)
=1 if managerial/ professional occupation	-0.03	0.20	0.00	-0.03	(-0.42 0.36)	-0.03	0.20	0.00	-0.03	(-0.42 0.36)	-0.03	0.20	0.00	-0.04	(-0.43 0.36)
=1 if technical, semi-routine or routine occupation	0.22	0.15	0.00	0.22	(-0.08 0.52)	0.22	0.15	0.00	0.22	(-0.08 0.51)	0.22	0.15	0.00	0.22	(-0.08 0.52)
=1 if can't remember or father died	0.38	0.23	0.00	0.38	(-0.06 0.82)	0.39	0.23	0.00	0.39	(-0.05 0.84)	0.39	0.23	0.00	0.38	(-0.07 0.83)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	-0.13	0.22	0.00	-0.13	(-0.56 0.30)	-0.06	0.21	0.00	-0.06	(-0.47 0.34)	-0.06	0.21	0.00	-0.06	(-0.47 0.35)
Hyperactivity Risk Factors															
<i>Gestational age</i>															
=1 if gestational age < 37 weeks	-0.01	0.26	0.00	-0.01	(-0.52 0.50)	-0.16	0.26	0.00	-0.16	(-0.67 0.35)	-0.06	0.26	0.00	-0.06	(-0.57 0.43)
<i>Maternal mental health (age 1)</i>															
=1 if increased risk of depression/ anxiety	0.10	0.17	0.00	0.10	(-0.24 0.43)	0.00	0.17	0.00	0.00	(-0.32 0.34)	0.14	0.17	0.00	0.15	(-0.19 0.47)
<i>Alcohol consumption during pregnancy</i>															
=1 if 1-2 times per month	0.14	0.24	0.00	0.14	(-0.33 0.61)	0.12	0.24	0.00	0.12	(-0.34 0.59)	0.22	0.23	0.00	0.22	(-0.24 0.67)
=1 if at least once a week	0.32	0.21	0.00	0.32	(-0.10 0.74)	0.28	0.21	0.00	0.28	(-0.13 0.69)	0.26	0.21	0.00	0.26	(-0.16 0.69)
<i>Smoking during pregnancy</i>															
=1 if mother smoked during pregnancy	-0.33	0.16	0.00	-0.33	(-0.64 -0.03)	-0.38	0.16	0.00	-0.38	(-0.69 -0.08)	-0.35	0.16	0.00	-0.35	(-0.66 -0.05)
<i>Smoking in the same room as child</i>															
=1 if anyone smokes in same room as child (age 1)	0.23	0.17	0.00	0.23	(-0.11 0.57)	0.34	0.17	0.00	0.34	(0.00 0.67)	0.23	0.17	0.00	0.23	(-0.10 0.56)
=1 if anyone smokes in same room as child (age 3)	-0.02	0.16	0.00	-0.02	(-0.33 0.29)	0.06	0.15	0.00	0.05	(-0.24 0.36)	-0.03	0.15	0.00	-0.03	(-0.33 0.27)

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Table A.3.68 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
<i>Maternal attachment</i>															
Condon scale score (age 1)	0.03	0.07	0.00	0.03	(-0.10 0.16)	0.03	0.06	0.00	0.03	(-0.10 0.15)	0.05	0.06	0.00	0.05	(-0.07 0.18)
<i>Child-parent relationship</i>															
Condon scale score (age 3)	-0.83	0.07	0.00	-0.83	(-0.97 -0.70)	-0.85	0.07	0.00	-0.85	(-0.98 -0.72)	-0.84	0.07	0.00	-0.84	(-0.98 -0.71)
<i>Maltreatment of children</i>															
Straus's conflict tactics scale (age 3)	0.16	0.09	0.00	0.16	(-0.01 0.33)	0.16	0.08	0.00	0.16	(-0.01 0.32)	0.18	0.08	0.00	0.18	(0.02 0.35)
constant	1.53	0.84	0.01	1.52	(-0.09 3.21)	1.57	0.84	0.01	1.57	(-0.07 3.25)	1.61	0.84	0.01	1.61	(-0.04 3.25)
σ_{τ}	1.80	0.05	0.00	1.80	(1.70 1.90)	1.79	0.05	0.00	1.79	(1.69 1.89)	1.78	0.05	0.00	1.78	(1.69 1.88)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.69: Bayesian Estimates: CSR and SDQ HA (Eq. 2, TP, Age 5)

	CSR IND					CSR EMO					CSR COO					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls																
<i>Income</i>																
log of permanent family income (weekly, imp.)	-0.25	0.07	0.00	-0.25	(-0.38 -0.11)	-0.21	0.07	0.00	-0.21	(-0.35 -0.07)	-0.22	0.07	0.00	-0.22	(-0.36 -0.08)	
<i>Maternal education</i>																
=1 if NVQ level 1 or 2	0.28	0.07	0.00	0.28	(0.15 0.41)	0.26	0.07	0.00	0.26	(0.14 0.40)	0.28	0.07	0.00	0.28	(0.15 0.41)	
=1 if NVQ level 3	0.26	0.08	0.00	0.26	(0.11 0.41)	0.26	0.07	0.00	0.26	(0.11 0.40)	0.25	0.07	0.00	0.25	(0.11 0.40)	
=1 if overseas qual. only	0.12	0.22	0.00	0.12	(-0.32 0.56)	0.09	0.22	0.00	0.09	(-0.34 0.53)	0.03	0.22	0.00	0.03	(-0.40 0.46)	
=1 if none of these	0.29	0.13	0.00	0.29	(0.03 0.55)	0.27	0.13	0.00	0.27	(0.01 0.53)	0.29	0.13	0.00	0.29	(0.04 0.55)	
<i>Mother's age at birth</i>																
=1 if less than 25 years	0.09	0.10	0.00	0.09	(-0.11 0.29)	0.09	0.10	0.00	0.09	(-0.11 0.28)	0.09	0.10	0.00	0.08	(-0.11 0.28)	
=1 if 25 to 29 years	0.04	0.08	0.00	0.04	(-0.12 0.20)	0.04	0.08	0.00	0.04	(-0.12 0.19)	0.03	0.08	0.00	0.03	(-0.12 0.19)	
=1 if 30 to 34 years	0.01	0.08	0.00	0.01	(-0.13 0.16)	0.02	0.07	0.00	0.01	(-0.13 0.16)	0.01	0.07	0.00	0.01	(-0.13 0.15)	
<i>Child demography</i>																
=1 if female	-0.44	0.05	0.00	-0.44	(-0.54 -0.34)	-0.44	0.05	0.00	-0.44	(-0.54 -0.34)	-0.44	0.05	0.00	-0.44	(-0.54 -0.34)	
age (years)	0.33	0.13	0.00	0.34	(0.07 0.59)	0.29	0.13	0.00	0.29	(0.04 0.54)	0.29	0.13	0.00	0.29	(0.04 0.54)	
=1 if ethnicity is non-white	0.14	0.12	0.00	0.14	(-0.10 0.38)	0.13	0.12	0.00	0.13	(-0.10 0.37)	0.15	0.12	0.00	0.15	(-0.09 0.39)	
<i>Child's health endowment</i>																
=1 if birth weight < 2500g	0.38	0.15	0.00	0.38	(0.09 0.66)	0.43	0.14	0.00	0.43	(0.15 0.71)	0.41	0.14	0.00	0.41	(0.13 0.68)	
<i>Size of household</i>																
log of hh size incl. cm	-0.37	0.15	0.00	-0.37	(-0.67 -0.07)	-0.39	0.15	0.00	-0.39	(-0.68 -0.09)	-0.40	0.15	0.00	-0.40	(-0.69 -0.10)	
<i>Number of older siblings</i>																
=1 if no older siblings	-0.07	0.07	0.00	-0.07	(-0.20 0.05)	-0.07	0.07	0.00	-0.07	(-0.20 0.06)	-0.08	0.07	0.00	-0.08	(-0.20 0.05)	
=1 if two or more older siblings	0.01	0.09	0.00	0.01	(-0.16 0.18)	0.01	0.08	0.00	0.01	(-0.15 0.18)	0.02	0.09	0.00	0.02	(-0.15 0.18)	
<i>Respondent's relationship to child</i>																
=1 if natural mother of child	1.08	0.28	0.00	1.09	(0.53 1.62)	0.93	0.27	0.00	0.93	(0.39 1.45)	0.93	0.27	0.00	0.93	(0.41 1.46)	
<i>Country where interview took place</i>																
=1 if wales	0.19	0.28	0.00	0.19	(-0.37 0.74)	0.21	0.28	0.00	0.20	(-0.34 0.75)	0.16	0.28	0.00	0.16	(-0.39 0.70)	
=1 if nireland	-0.26	0.49	0.00	-0.26	(-1.24 0.68)	-0.18	0.48	0.00	-0.19	(-1.11 0.78)	-0.30	0.48	0.00	-0.30	(-1.21 0.64)	
=1 if scotland	-0.04	0.34	0.00	-0.04	(-0.70 0.65)	-0.01	0.33	0.00	-0.01	(-0.67 0.64)	0.09	0.34	0.00	0.09	(-0.56 0.75)	
Time and Care																
<i>Time mother spends with child</i>																
=1 if at least just enough	-0.19	0.06	0.00	-0.19	(-0.31 -0.06)	-0.18	0.06	0.00	-0.18	(-0.31 -0.06)	-0.17	0.06	0.00	-0.17	(-0.29 -0.05)	
<i>Childcare</i>																
=1 if formal childcare	-0.05	0.07	0.00	-0.06	(-0.19 0.08)	-0.08	0.06	0.00	-0.09	(-0.21 0.04)	-0.11	0.06	0.00	-0.11	(-0.24 0.02)	
=1 if informal/ other childcare	0.02	0.13	0.00	0.02	(-0.24 0.27)	0.01	0.12	0.00	0.00	(-0.23 0.25)	0.01	0.12	0.00	0.01	(-0.24 0.24)	
=1 if grandparent care	0.07	0.07	0.00	0.07	(-0.07 0.21)	0.03	0.07	0.00	0.03	(-0.11 0.16)	0.02	0.07	0.00	0.02	(-0.11 0.15)	
<i>Maternal employment (t - 1)</i>																
=1 if working part-time	-0.02	0.06	0.00	-0.02	(-0.13 0.10)	-0.02	0.06	0.00	-0.02	(-0.13 0.09)	0.00	0.06	0.00	0.00	(-0.11 0.11)	
=1 if working full-time	-0.01	0.11	0.00	-0.01	(-0.22 0.22)	0.01	0.11	0.00	0.01	(-0.20 0.22)	-0.03	0.11	0.00	-0.03	(-0.24 0.18)	
<i>How long mother breastfed child</i>																
=1 if at least 6 months	-0.19	0.07	0.00	-0.19	(-0.32 -0.06)	-0.19	0.07	0.00	-0.19	(-0.32 -0.06)	-0.19	0.07	0.00	-0.19	(-0.32 -0.06)	
<i>If child is naughty...</i>																

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Table A.3.69 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.06	0.09	0.00	0.06	(-0.12 0.24)	0.10	0.09	0.00	0.10	(-0.08 0.27)	0.07	0.09	0.00	0.07	(-0.11 0.24)
=1 if mother tells child off	0.14	0.08	0.00	0.14	(-0.02 0.31)	0.06	0.08	0.00	0.06	(-0.10 0.22)	0.16	0.08	0.00	0.16	(0.00 0.32)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	-0.15	0.07	0.00	-0.15	(-0.29 -0.02)	-0.14	0.07	0.00	-0.14	(-0.27 -0.01)	-0.15	0.07	0.00	-0.15	(-0.28 -0.02)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	0.02	0.08	0.00	0.02	(-0.13 0.17)	0.09	0.07	0.00	0.09	(-0.05 0.23)	0.02	0.07	0.00	0.02	(-0.12 0.16)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.54	0.13	0.00	-0.54	(-0.79 -0.28)	-0.56	0.12	0.00	-0.56	(-0.81 -0.32)	-0.49	0.12	0.00	-0.49	(-0.73 -0.25)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.05	0.06	0.00	0.05	(-0.07 0.17)	0.02	0.06	0.00	0.02	(-0.10 0.14)	0.04	0.06	0.00	0.04	(-0.08 0.15)
<i>Maternal mental health</i>															
=1 if high distress	0.12	0.18	0.00	0.12	(-0.24 0.48)	0.06	0.18	0.00	0.06	(-0.29 0.41)	0.09	0.18	0.00	0.09	(-0.26 0.44)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.06	0.08	0.00	0.06	(-0.10 0.22)	0.05	0.08	0.00	0.05	(-0.10 0.21)	0.04	0.08	0.00	0.04	(-0.12 0.19)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.02	0.07	0.00	-0.02	(-0.15 0.12)	-0.03	0.07	0.00	-0.03	(-0.16 0.10)	-0.02	0.07	0.00	-0.02	(-0.15 0.11)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.04	0.11	0.00	0.04	(-0.17 0.26)	0.08	0.11	0.00	0.08	(-0.12 0.29)	0.09	0.11	0.00	0.09	(-0.12 0.30)
=1 if rented (housing association or private)/ other	0.05	0.09	0.00	0.05	(-0.13 0.22)	0.05	0.09	0.00	0.05	(-0.13 0.22)	0.05	0.09	0.00	0.05	(-0.12 0.23)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.16	0.18	0.00	0.16	(-0.19 0.50)	0.21	0.17	0.00	0.21	(-0.12 0.54)	0.16	0.17	0.00	0.16	(-0.17 0.49)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.11	0.12	0.00	0.11	(-0.13 0.34)	0.11	0.12	0.00	0.11	(-0.12 0.33)	0.10	0.12	0.00	0.10	(-0.13 0.33)
=1 if managerial/ professional occupation	-0.19	0.07	0.00	-0.19	(-0.33 -0.05)	-0.18	0.07	0.00	-0.19	(-0.32 -0.04)	-0.19	0.07	0.00	-0.19	(-0.33 -0.05)
=1 if technical, semi-routine or routine occupation	0.03	0.06	0.00	0.03	(-0.09 0.15)	0.03	0.06	0.00	0.03	(-0.09 0.16)	0.03	0.06	0.00	0.03	(-0.09 0.16)
=1 if can't remember or father died	0.18	0.12	0.00	0.18	(-0.06 0.41)	0.18	0.12	0.00	0.18	(-0.06 0.41)	0.18	0.12	0.00	0.18	(-0.05 0.41)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	0.31	0.12	0.00	0.31	(0.08 0.55)	0.34	0.11	0.00	0.34	(0.12 0.57)	0.26	0.11	0.00	0.26	(0.03 0.48)
Hyperactivity Risk Factors															
<i>Gestational age</i>															
=1 if gestational age < 37 weeks	0.10	0.13	0.00	0.10	(-0.14 0.35)	0.02	0.12	0.00	0.02	(-0.22 0.25)	0.06	0.12	0.00	0.06	(-0.17 0.30)
<i>Maternal mental health (age 1)</i>															
=1 if increased risk of depression/ anxiety	0.06	0.08	0.00	0.07	(-0.10 0.22)	0.09	0.08	0.00	0.09	(-0.06 0.25)	0.11	0.08	0.00	0.11	(-0.05 0.26)
<i>Alcohol consumption during pregnancy</i>															
=1 if 1-2 times per month	0.07	0.09	0.00	0.07	(-0.11 0.24)	0.08	0.09	0.00	0.08	(-0.09 0.25)	0.02	0.08	0.00	0.02	(-0.15 0.18)
=1 if at least once a week	-0.03	0.09	0.00	-0.04	(-0.20 0.14)	-0.06	0.08	0.00	-0.05	(-0.22 0.11)	-0.07	0.08	0.00	-0.07	(-0.24 0.09)
<i>Smoking during pregnancy</i>															
=1 if mother smoked during pregnancy	0.05	0.09	0.00	0.05	(-0.13 0.22)	0.05	0.08	0.00	0.05	(-0.12 0.21)	0.08	0.08	0.00	0.08	(-0.09 0.24)
<i>Smoking in the same room as child</i>															
=1 if anyone smokes in same room as child (age 1)	0.02	0.10	0.00	0.02	(-0.17 0.21)	0.03	0.09	0.00	0.03	(-0.15 0.21)	0.03	0.09	0.00	0.03	(-0.15 0.21)
=1 if anyone smokes in same room as child (age 3)	0.13	0.09	0.00	0.13	(-0.04 0.30)	0.15	0.08	0.00	0.15	(-0.01 0.31)	0.12	0.08	0.00	0.12	(-0.04 0.28)

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Table A.3.69 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
<i>Maternal attachment</i>															
Condon scale score (age 1)	-0.10	0.03	0.00	-0.11	(-0.16 -0.05)	-0.10	0.03	0.00	-0.10	(-0.16 -0.05)	-0.09	0.03	0.00	-0.09	(-0.15 -0.04)
<i>Child-parent relationship</i>															
Condon scale score (age 3)	-0.78	0.03	0.00	-0.78	(-0.84 -0.72)	-0.80	0.03	0.00	-0.80	(-0.86 -0.74)	-0.80	0.03	0.00	-0.80	(-0.86 -0.74)
<i>Maltreatment of children</i>															
Straus's conflict tactics scale (age 3)	0.26	0.04	0.00	0.26	(0.19 0.33)	0.27	0.03	0.00	0.27	(0.20 0.33)	0.27	0.03	0.00	0.27	(0.20 0.34)
constant	4.21	0.62	0.01	4.21	(2.98 5.42)	4.35	0.61	0.01	4.35	(3.12 5.54)	4.29	0.60	0.01	4.30	(3.11 5.47)
σ_{τ}	1.69	0.02	0.00	1.69	(1.65 1.73)	1.68	0.02	0.00	1.68	(1.64 1.72)	1.68	0.02	0.00	1.68	(1.64 1.72)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS NV: British Ability Scale Naming Vocabulary Test; BAS PS: British Ability Scale Picture Similarity Test; BAS PC: British Ability Scale Pattern Construction Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.70: Bayesian Estimates: BAS, NFER and # Chronic Conditions (Eq. 1, LP, Age 7)

	BAS PC					BAS WR					NFER Math				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
number of health problems	-0.10	0.09	0.00	-0.10	(-0.28 0.07)	-0.10	0.08	0.00	-0.10	(-0.27 0.03)	-0.04	0.08	0.00	-0.03	(-0.23 0.11)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.18	0.07	0.00	0.18	(0.05 0.32)	-0.04	0.06	0.00	-0.04	(-0.17 0.08)	0.08	0.07	0.00	0.08	(-0.05 0.21)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.16	0.07	0.00	-0.16	(-0.30 -0.03)	-0.19	0.07	0.00	-0.19	(-0.32 -0.06)	-0.21	0.07	0.00	-0.21	(-0.35 -0.08)
=1 if NVQ level 3	0.09	0.08	0.00	0.08	(-0.07 0.24)	-0.03	0.08	0.00	-0.03	(-0.18 0.11)	-0.03	0.08	0.00	-0.03	(-0.18 0.13)
=1 if overseas qual. only	-0.18	0.18	0.00	-0.18	(-0.53 0.16)	-0.18	0.17	0.00	-0.18	(-0.51 0.15)	-0.22	0.17	0.00	-0.22	(-0.56 0.12)
=1 if none of these	-0.07	0.10	0.00	-0.07	(-0.27 0.12)	-0.34	0.09	0.00	-0.35	(-0.53 -0.16)	-0.22	0.10	0.00	-0.22	(-0.42 -0.03)
<i>Mother's age at birth</i>															
=1 if less than 25 years	0.07	0.10	0.00	0.07	(-0.12 0.27)	-0.18	0.10	0.00	-0.18	(-0.37 0.01)	-0.01	0.10	0.00	-0.01	(-0.20 0.20)
=1 if 25 to 29 years	0.06	0.09	0.00	0.06	(-0.12 0.24)	-0.15	0.09	0.00	-0.15	(-0.32 0.01)	-0.03	0.09	0.00	-0.03	(-0.20 0.15)
=1 if 30 to 34 years	0.05	0.09	0.00	0.05	(-0.13 0.23)	0.00	0.09	0.00	0.00	(-0.16 0.17)	0.01	0.09	0.00	0.01	(-0.16 0.19)
<i>Child demography</i>															
=1 if female	0.02	0.05	0.00	0.02	(-0.08 0.11)	0.08	0.05	0.00	0.08	(-0.02 0.17)	-0.11	0.05	0.00	-0.11	(-0.21 -0.01)
age (years)	0.20	0.08	0.00	0.20	(0.04 0.37)	0.39	0.08	0.00	0.39	(0.23 0.55)	0.25	0.08	0.00	0.25	(0.08 0.41)
=1 if ethnicity is non-white	-0.13	0.10	0.00	-0.13	(-0.32 0.06)	0.21	0.09	0.00	0.21	(0.03 0.39)	0.08	0.10	0.00	0.08	(-0.11 0.27)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.22	0.10	0.00	-0.22	(-0.41 -0.03)	-0.06	0.10	0.00	-0.06	(-0.25 0.13)	-0.12	0.10	0.00	-0.12	(-0.31 0.08)
<i>Size of household</i>															
log of hh size incl. cm	-0.03	0.10	0.00	-0.03	(-0.23 0.16)	-0.12	0.10	0.00	-0.12	(-0.31 0.07)	-0.25	0.10	0.00	-0.25	(-0.44 -0.05)
<i>Number of older siblings</i>															
=1 if no older siblings	-0.04	0.07	0.00	-0.04	(-0.16 0.09)	0.10	0.06	0.00	0.10	(-0.02 0.22)	-0.09	0.07	0.00	-0.09	(-0.22 0.04)
=1 if two or more older siblings	-0.10	0.08	0.00	-0.10	(-0.25 0.05)	-0.14	0.07	0.00	-0.14	(-0.28 0.01)	-0.10	0.08	0.00	-0.10	(-0.25 0.06)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	0.11	0.15	0.00	0.11	(-0.18 0.40)	-0.04	0.15	0.00	-0.04	(-0.32 0.24)	-0.02	0.16	0.00	-0.02	(-0.32 0.28)
<i>Country where interview took place</i>															
=1 if wales	0.38	0.26	0.00	0.38	(-0.12 0.90)	-0.13	0.25	0.00	-0.13	(-0.63 0.37)	0.05	0.26	0.00	0.05	(-0.46 0.57)
=1 if nireland	0.32	0.50	0.01	0.32	(-0.66 1.32)	-0.16	0.50	0.00	-0.16	(-1.12 0.83)	0.25	0.50	0.00	0.25	(-0.74 1.21)
=1 if scotland	0.10	0.30	0.00	0.10	(-0.49 0.70)	0.16	0.29	0.00	0.16	(-0.43 0.72)	0.21	0.30	0.00	0.21	(-0.38 0.80)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	0.04	0.05	0.00	0.04	(-0.06 0.15)	0.03	0.05	0.00	0.03	(-0.07 0.14)	-0.00	0.06	0.00	-0.00	(-0.11 0.11)
<i>Childcare</i>															
=1 if formal childcare	-0.11	0.11	0.00	-0.11	(-0.32 0.10)	-0.19	0.10	0.00	-0.19	(-0.39 0.02)	-0.09	0.11	0.00	-0.09	(-0.29 0.13)
=1 if informal/ other childcare	-0.01	0.08	0.00	-0.01	(-0.17 0.15)	-0.20	0.08	0.00	-0.20	(-0.36 -0.05)	-0.11	0.08	0.00	-0.11	(-0.27 0.05)
=1 if grandparent care	-0.02	0.06	0.00	-0.02	(-0.15 0.10)	0.07	0.06	0.00	0.07	(-0.05 0.19)	-0.01	0.06	0.00	-0.01	(-0.14 0.11)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	0.07	0.06	0.00	0.07	(-0.05 0.18)	0.15	0.06	0.00	0.15	(0.04 0.27)	0.15	0.06	0.00	0.15	(0.03 0.27)
=1 if working full-time	0.04	0.12	0.00	0.04	(-0.19 0.27)	0.08	0.11	0.00	0.09	(-0.14 0.31)	0.10	0.12	0.00	0.10	(-0.14 0.33)
<i>How long mother breastfed child</i>															

continued on next page

Table A.3.70 – continued from previous page

	BAS PC					BAS WR					NFER Math				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.00	0.08	0.00	0.00	(-0.16 0.16)	-0.02	0.08	0.00	-0.02	(-0.17 0.13)	0.03	0.08	0.00	0.03	(-0.13 0.19)
<i>If child is naughty...</i>															
=1 if mother smacks child	-0.17	0.22	0.00	-0.17	(-0.60 0.26)	0.26	0.21	0.00	0.26	(-0.16 0.67)	-0.01	0.22	0.00	-0.01	(-0.44 0.41)
=1 if mother tells child off	-0.05	0.05	0.00	-0.05	(-0.15 0.05)	-0.11	0.05	0.00	-0.11	(-0.20 -0.01)	-0.07	0.05	0.00	-0.07	(-0.18 0.03)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.18	0.08	0.00	0.18	(0.02 0.34)	0.05	0.08	0.00	0.05	(-0.10 0.20)	0.11	0.08	0.00	0.11	(-0.05 0.27)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.01	0.07	0.00	-0.01	(-0.14 0.12)	-0.05	0.06	0.00	-0.05	(-0.17 0.07)	0.03	0.07	0.00	0.03	(-0.10 0.16)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.08	0.08	0.00	-0.08	(-0.24 0.08)	-0.19	0.08	0.00	-0.19	(-0.34 -0.03)	-0.17	0.08	0.00	-0.17	(-0.33 -0.02)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.03	0.06	0.00	0.03	(-0.09 0.14)	0.03	0.05	0.00	0.03	(-0.08 0.14)	0.04	0.06	0.00	0.04	(-0.07 0.15)
<i>Maternal mental health</i>															
=1 if high distress	-0.20	0.11	0.00	-0.20	(-0.42 0.01)	0.03	0.10	0.00	0.03	(-0.18 0.23)	-0.10	0.11	0.00	-0.10	(-0.30 0.11)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.11	0.05	0.00	-0.11	(-0.22 -0.01)	-0.18	0.05	0.00	-0.18	(-0.28 -0.08)	-0.10	0.05	0.00	-0.10	(-0.21 0.01)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	0.05	0.07	0.00	0.05	(-0.09 0.18)	0.09	0.07	0.00	0.09	(-0.04 0.22)	0.03	0.07	0.00	0.03	(-0.11 0.17)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.04	0.08	0.00	-0.04	(-0.19 0.12)	-0.11	0.08	0.00	-0.11	(-0.26 0.05)	-0.09	0.08	0.00	-0.09	(-0.24 0.08)
=1 if rented (housing association or private)/ other	-0.05	0.07	0.00	-0.05	(-0.19 0.09)	-0.10	0.07	0.00	-0.10	(-0.23 0.03)	0.01	0.07	0.00	0.01	(-0.13 0.15)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.10	0.10	0.00	0.10	(-0.09 0.30)	-0.01	0.09	0.00	-0.01	(-0.19 0.17)	0.25	0.10	0.00	0.25	(0.06 0.45)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.04	0.09	0.00	-0.04	(-0.22 0.13)	-0.08	0.09	0.00	-0.08	(-0.25 0.09)	-0.07	0.09	0.00	-0.07	(-0.24 0.11)
=1 if managerial/ professional occupation	0.03	0.08	0.00	0.03	(-0.12 0.19)	0.17	0.08	0.00	0.17	(0.02 0.33)	-0.03	0.08	0.00	-0.03	(-0.20 0.13)
=1 if technical, semi-routine or routine occupation	-0.07	0.06	0.00	-0.07	(-0.19 0.05)	0.01	0.06	0.00	0.01	(-0.11 0.13)	-0.12	0.06	0.00	-0.12	(-0.24 0.00)
=1 if can't remember or father died	-0.06	0.10	0.00	-0.06	(-0.25 0.13)	-0.07	0.09	0.00	-0.07	(-0.26 0.11)	0.05	0.10	0.00	0.05	(-0.14 0.24)
constant	-2.53	0.66	0.01	-2.53	(-3.82 -1.24)	-1.92	0.65	0.01	-1.93	(-3.19 -0.64)	-1.74	0.67	0.01	-1.75	(-3.06 -0.41)
σ_ϵ	0.95	0.03	0.00	0.95	(0.88 0.99)	0.91	0.03	0.00	0.92	(0.84 0.96)	0.96	0.03	0.00	0.96	(0.89 1.00)
σ_ζ	0.18	0.09	0.01	0.16	(0.06 0.40)	0.17	0.12	0.01	0.16	(0.02 0.41)	0.14	0.10	0.01	0.12	(0.02 0.40)
$\rho_{\zeta\epsilon}$	0.19	0.53	0.04	0.26	(-0.80 0.96)	0.33	0.49	0.04	0.42	(-0.72 0.97)	-0.04	0.53	0.04	-0.04	(-0.90 0.94)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.71: Bayesian Estimates: BAS, NFER and # Chronic Conditions (Eq. 1, TP, Age 7)

	BAS PC					BAS WR					NFER Math				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
number of health problems	-0.08	0.06	0.00	-0.07	(-0.20 0.03)	-0.07	0.06	0.00	-0.05	(-0.20 0.02)	-0.07	0.06	0.00	-0.07	(-0.17 0.05)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.20	0.03	0.00	0.20	(0.13 0.27)	0.31	0.03	0.00	0.31	(0.25 0.37)	0.32	0.03	0.00	0.32	(0.26 0.38)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.11	0.03	0.00	-0.11	(-0.17 -0.05)	-0.15	0.03	0.00	-0.15	(-0.21 -0.10)	-0.12	0.03	0.00	-0.12	(-0.18 -0.06)
=1 if NVQ level 3	-0.08	0.03	0.00	-0.08	(-0.14 -0.01)	-0.07	0.03	0.00	-0.07	(-0.14 -0.01)	-0.07	0.03	0.00	-0.07	(-0.14 -0.00)
=1 if overseas qual. only	-0.22	0.10	0.00	-0.22	(-0.41 -0.03)	-0.22	0.10	0.00	-0.23	(-0.41 -0.04)	-0.05	0.10	0.00	-0.05	(-0.24 0.15)
=1 if none of these	-0.22	0.06	0.00	-0.22	(-0.34 -0.11)	-0.25	0.06	0.00	-0.25	(-0.36 -0.14)	-0.22	0.06	0.00	-0.22	(-0.34 -0.10)
<i>Mother's age at birth</i>															
=1 if less than 25 years	-0.02	0.05	0.00	-0.02	(-0.11 0.08)	-0.16	0.04	0.00	-0.16	(-0.25 -0.07)	0.01	0.05	0.00	0.01	(-0.08 0.10)
=1 if 25 to 29 years	0.01	0.04	0.00	0.01	(-0.06 0.08)	-0.02	0.04	0.00	-0.02	(-0.09 0.05)	0.05	0.04	0.00	0.05	(-0.02 0.12)
=1 if 30 to 34 years	0.03	0.03	0.00	0.03	(-0.04 0.09)	0.00	0.03	0.00	0.00	(-0.06 0.07)	0.05	0.03	0.00	0.05	(-0.02 0.11)
<i>Child demography</i>															
=1 if female	0.05	0.02	0.00	0.05	(0.00 0.10)	0.12	0.02	0.00	0.12	(0.08 0.17)	-0.07	0.02	0.00	-0.07	(-0.11 -0.02)
age (years)	0.40	0.05	0.00	0.40	(0.31 0.49)	0.48	0.04	0.00	0.48	(0.39 0.56)	0.49	0.05	0.00	0.49	(0.40 0.58)
=1 if ethnicity is non-white	-0.10	0.05	0.00	-0.10	(-0.21 0.00)	0.25	0.05	0.00	0.25	(0.15 0.35)	-0.01	0.05	0.00	-0.01	(-0.12 0.09)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.28	0.05	0.00	-0.28	(-0.38 -0.18)	-0.17	0.05	0.00	-0.17	(-0.27 -0.07)	-0.25	0.05	0.00	-0.25	(-0.35 -0.14)
<i>Size of household</i>															
log of hh size incl. cm	-0.11	0.07	0.00	-0.11	(-0.25 0.03)	-0.18	0.07	0.00	-0.18	(-0.31 -0.04)	-0.09	0.07	0.00	-0.09	(-0.23 0.05)
<i>Number of older siblings</i>															
=1 if no older siblings	0.05	0.03	0.00	0.05	(-0.01 0.10)	0.13	0.03	0.00	0.13	(0.08 0.18)	0.05	0.03	0.00	0.05	(-0.00 0.10)
=1 if two or more older siblings	-0.07	0.04	0.00	-0.07	(-0.14 0.01)	-0.20	0.04	0.00	-0.20	(-0.27 -0.13)	-0.08	0.04	0.00	-0.08	(-0.15 -0.01)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	0.11	0.10	0.00	0.11	(-0.08 0.30)	0.02	0.09	0.00	0.01	(-0.16 0.19)	0.01	0.09	0.00	0.01	(-0.17 0.20)
<i>Country where interview took place</i>															
=1 if wales	0.19	0.12	0.00	0.19	(-0.04 0.42)	0.09	0.11	0.00	0.09	(-0.13 0.31)	0.23	0.12	0.00	0.23	(0.01 0.46)
=1 if nireland	0.50	0.25	0.00	0.50	(0.01 0.99)	0.59	0.24	0.00	0.59	(0.13 1.07)	0.52	0.25	0.00	0.52	(0.03 1.01)
=1 if scotland	0.20	0.14	0.00	0.20	(-0.08 0.48)	-0.26	0.14	0.00	-0.26	(-0.53 0.01)	0.14	0.14	0.00	0.14	(-0.13 0.42)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	-0.01	0.03	0.00	-0.01	(-0.06 0.04)	0.05	0.02	0.00	0.05	(-0.00 0.09)	0.05	0.02	0.00	0.05	(-0.00 0.10)
<i>Childcare</i>															
=1 if formal childcare	0.07	0.05	0.00	0.07	(-0.04 0.18)	-0.03	0.05	0.00	-0.03	(-0.12 0.07)	0.05	0.05	0.00	0.05	(-0.06 0.15)
=1 if informal/ other childcare	-0.02	0.04	0.00	-0.02	(-0.10 0.06)	-0.05	0.04	0.00	-0.05	(-0.13 0.02)	-0.07	0.04	0.00	-0.07	(-0.15 0.01)
=1 if grandparent care	-0.04	0.03	0.00	-0.04	(-0.10 0.01)	0.00	0.03	0.00	0.00	(-0.05 0.06)	0.03	0.03	0.00	0.03	(-0.02 0.09)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	-0.04	0.03	0.00	-0.04	(-0.09 0.02)	0.01	0.03	0.00	0.01	(-0.04 0.07)	-0.04	0.03	0.00	-0.04	(-0.09 0.02)
=1 if working full-time	0.01	0.06	0.00	0.01	(-0.10 0.12)	-0.10	0.05	0.00	-0.10	(-0.20 0.01)	-0.05	0.06	0.00	-0.05	(-0.16 0.06)
<i>How long mother breastfed child</i>															

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Table A.3.71 – continued from previous page

	BAS PC					BAS WR					NFER Math				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.12	0.03	0.00	0.12	(0.06 0.17)	0.09	0.03	0.00	0.09	(0.03 0.14)	0.11	0.03	0.00	0.11	(0.05 0.17)
<i>If child is naughty...</i>															
=1 if mother smacks child	-0.03	0.13	0.00	-0.03	(-0.27 0.22)	-0.05	0.12	0.00	-0.04	(-0.28 0.19)	-0.16	0.13	0.00	-0.16	(-0.41 0.08)
=1 if mother tells child off	-0.02	0.02	0.00	-0.02	(-0.07 0.03)	-0.01	0.02	0.00	-0.01	(-0.06 0.03)	-0.02	0.02	0.00	-0.02	(-0.06 0.03)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.08	0.04	0.00	0.08	(-0.00 0.17)	0.11	0.04	0.00	0.11	(0.03 0.19)	0.01	0.04	0.00	0.01	(-0.07 0.10)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.01	0.03	0.00	-0.01	(-0.07 0.06)	-0.07	0.03	0.00	-0.07	(-0.13 -0.00)	-0.05	0.03	0.00	-0.05	(-0.12 0.02)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.14	0.04	0.00	-0.14	(-0.22 -0.06)	-0.23	0.04	0.00	-0.23	(-0.31 -0.16)	-0.17	0.04	0.00	-0.17	(-0.25 -0.09)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	-0.01	0.03	0.00	-0.01	(-0.06 0.04)	0.01	0.03	0.00	0.01	(-0.04 0.06)	-0.07	0.03	0.00	-0.07	(-0.12 -0.01)
<i>Maternal mental health</i>															
=1 if high distress	-0.10	0.08	0.00	-0.10	(-0.25 0.05)	-0.11	0.08	0.00	-0.11	(-0.26 0.04)	0.02	0.08	0.00	0.02	(-0.14 0.17)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.02	0.03	0.00	-0.02	(-0.09 0.04)	-0.11	0.03	0.00	-0.11	(-0.17 -0.05)	-0.09	0.03	0.00	-0.09	(-0.15 -0.03)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	0.03	0.03	0.00	0.03	(-0.03 0.09)	0.03	0.03	0.00	0.03	(-0.03 0.08)	0.03	0.03	0.00	0.03	(-0.03 0.09)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.09	0.05	0.00	-0.09	(-0.19 0.01)	-0.09	0.05	0.00	-0.09	(-0.18 0.00)	-0.09	0.05	0.00	-0.09	(-0.19 0.01)
=1 if rented (housing association or private)/ other	-0.01	0.04	0.00	-0.01	(-0.09 0.07)	-0.02	0.04	0.00	-0.02	(-0.10 0.05)	-0.00	0.04	0.00	0.00	(-0.08 0.08)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.06	0.06	0.00	0.06	(-0.05 0.18)	0.09	0.05	0.00	0.08	(-0.02 0.19)	0.13	0.06	0.00	0.13	(0.02 0.24)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.06	0.05	0.00	-0.06	(-0.16 0.04)	-0.07	0.05	0.00	-0.07	(-0.16 0.03)	-0.04	0.05	0.00	-0.04	(-0.14 0.06)
=1 if managerial/ professional occupation	0.04	0.03	0.00	0.04	(-0.02 0.10)	0.10	0.03	0.00	0.10	(0.04 0.16)	0.01	0.03	0.00	0.01	(-0.05 0.08)
=1 if technical, semi-routine or routine occupation	-0.05	0.03	0.00	-0.05	(-0.11 0.00)	-0.03	0.03	0.00	-0.03	(-0.08 0.03)	-0.05	0.03	0.00	-0.05	(-0.11 0.00)
=1 if can't remember or father died	-0.08	0.05	0.00	-0.08	(-0.19 0.02)	0.01	0.05	0.00	0.01	(-0.09 0.11)	0.04	0.05	0.00	0.04	(-0.06 0.14)
constant	-3.96	0.41	0.00	-3.96	(-4.76 -3.17)	-5.02	0.39	0.00	-5.02	(-5.79 -4.26)	-5.27	0.40	0.00	-5.27	(-6.05 -4.49)
σ_ϵ	0.94	0.03	0.00	0.95	(0.86 0.97)	0.90	0.02	0.00	0.91	(0.86 0.92)	0.93	0.03	0.00	0.93	(0.85 0.96)
σ_ζ	0.20	0.10	0.02	0.18	(0.07 0.43)	0.13	0.08	0.02	0.10	(0.06 0.31)	0.20	0.10	0.02	0.18	(0.05 0.43)
$\rho_{\zeta\xi}$	-0.12	0.43	0.06	-0.18	(-0.81 0.81)	-0.27	0.67	0.18	-0.28	(-0.99 0.84)	-0.14	0.40	0.05	-0.14	(-0.91 0.61)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.72: Bayesian Estimates: BAS, NFER and # Chronic Conditions (Eq. 2, LP, Age 7)

	BAS PC					BAS WR					NFER Math							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Standard Background Controls																		
<i>Income</i>																		
log of permanent family income (weekly, imp.)	-0.38	0.16	0.01	-0.39	(-0.70	-0.06)	-0.39	0.17	0.01	-0.39	(-0.72	-0.05)	-0.38	0.16	0.01	-0.38	(-0.70	-0.06)
<i>Maternal education</i>																		
=1 if NVQ level 1 or 2	-0.16	0.17	0.00	-0.16	(-0.49	0.18)	-0.15	0.17	0.00	-0.15	(-0.49	0.19)	-0.16	0.17	0.00	-0.16	(-0.49	0.18)
=1 if NVQ level 3	-0.08	0.20	0.00	-0.08	(-0.47	0.31)	-0.08	0.20	0.00	-0.08	(-0.47	0.31)	-0.08	0.20	0.00	-0.08	(-0.48	0.32)
=1 if overseas qual. only	-0.49	0.44	0.00	-0.48	(-1.40	0.35)	-0.48	0.44	0.00	-0.47	(-1.39	0.36)	-0.49	0.45	0.00	-0.48	(-1.40	0.36)
=1 if none of these	-0.19	0.24	0.00	-0.19	(-0.66	0.27)	-0.19	0.24	0.00	-0.19	(-0.67	0.28)	-0.19	0.24	0.00	-0.19	(-0.66	0.28)
<i>Mother's age at birth</i>																		
=1 if less than 25 years	-0.09	0.24	0.00	-0.09	(-0.56	0.38)	-0.10	0.24	0.00	-0.10	(-0.58	0.38)	-0.10	0.24	0.00	-0.10	(-0.57	0.37)
=1 if 25 to 29 years	0.12	0.22	0.00	0.12	(-0.31	0.55)	0.12	0.22	0.00	0.12	(-0.31	0.56)	0.12	0.22	0.00	0.12	(-0.32	0.56)
=1 if 30 to 34 years	0.10	0.23	0.00	0.10	(-0.34	0.55)	0.11	0.22	0.00	0.10	(-0.34	0.54)	0.10	0.23	0.00	0.10	(-0.33	0.55)
<i>Child demography</i>																		
=1 if female	-0.17	0.13	0.00	-0.17	(-0.42	0.09)	-0.18	0.13	0.00	-0.18	(-0.43	0.08)	-0.17	0.13	0.00	-0.17	(-0.42	0.07)
age (years)	-0.01	0.20	0.01	-0.01	(-0.39	0.36)	-0.02	0.20	0.01	-0.02	(-0.42	0.37)	-0.01	0.20	0.01	-0.01	(-0.40	0.39)
=1 if ethnicity is non-white	-0.49	0.26	0.00	-0.48	(-1.01	0.02)	-0.49	0.26	0.00	-0.48	(-1.00	0.01)	-0.49	0.26	0.00	-0.49	(-0.99	0.01)
<i>Child's health endowment</i>																		
=1 if birth weight < 2500g	0.30	0.23	0.00	0.31	(-0.16	0.75)	0.32	0.23	0.00	0.32	(-0.15	0.76)	0.31	0.23	0.00	0.31	(-0.15	0.75)
<i>Size of household</i>																		
log of hh size incl. cm	-0.25	0.23	0.00	-0.25	(-0.71	0.21)	-0.24	0.24	0.00	-0.24	(-0.73	0.23)	-0.24	0.24	0.00	-0.24	(-0.71	0.22)
<i>Number of older siblings</i>																		
=1 if no older siblings	-0.22	0.17	0.00	-0.22	(-0.54	0.12)	-0.21	0.17	0.00	-0.22	(-0.54	0.11)	-0.21	0.17	0.00	-0.21	(-0.53	0.12)
=1 if two or more older siblings	0.00	0.19	0.00	0.01	(-0.38	0.38)	0.00	0.20	0.00	0.00	(-0.38	0.38)	0.00	0.19	0.00	-0.00	(-0.37	0.37)
<i>Respondent's relationship to child</i>																		
=1 if natural mother of child	0.72	0.51	0.02	0.70	(-0.22	1.74)	0.71	0.50	0.02	0.69	(-0.21	1.73)	0.68	0.49	0.02	0.67	(-0.24	1.67)
<i>Country where interview took place</i>																		
=1 if wales	-0.06	0.48	0.01	-0.06	(-1.01	0.87)	-0.06	0.48	0.01	-0.06	(-0.99	0.87)	-0.07	0.48	0.01	-0.07	(-1.00	0.90)
=1 if nireland	-0.17	0.59	0.01	-0.17	(-1.33	0.98)	-0.17	0.58	0.01	-0.17	(-1.32	0.97)	-0.17	0.58	0.01	-0.17	(-1.34	0.95)
=1 if scotland	-0.55	0.52	0.01	-0.55	(-1.56	0.45)	-0.54	0.52	0.01	-0.55	(-1.57	0.50)	-0.55	0.52	0.01	-0.54	(-1.57	0.46)
Time and Care																		
<i>Time mother spends with child</i>																		
=1 if at least just enough	-0.24	0.14	0.00	-0.24	(-0.52	0.05)	-0.24	0.14	0.00	-0.24	(-0.52	0.04)	-0.24	0.14	0.00	-0.24	(-0.53	0.04)
<i>Childcare</i>																		
=1 if formal childcare	0.01	0.29	0.00	0.02	(-0.59	0.56)	-0.00	0.29	0.00	0.00	(-0.59	0.56)	-0.00	0.29	0.00	0.00	(-0.60	0.56)
=1 if informal/ other childcare	0.17	0.22	0.00	0.17	(-0.27	0.60)	0.17	0.22	0.00	0.17	(-0.29	0.60)	0.18	0.22	0.00	0.18	(-0.26	0.60)
=1 if grandparent care	0.15	0.16	0.00	0.15	(-0.16	0.46)	0.16	0.16	0.00	0.16	(-0.15	0.46)	0.15	0.16	0.00	0.15	(-0.16	0.45)
<i>Maternal employment (t - 1)</i>																		
=1 if working part-time	0.04	0.15	0.00	0.03	(-0.26	0.33)	0.04	0.16	0.00	0.04	(-0.27	0.35)	0.03	0.15	0.00	0.03	(-0.27	0.33)
=1 if working full-time	-0.23	0.36	0.00	-0.22	(-0.95	0.45)	-0.23	0.37	0.00	-0.22	(-0.97	0.47)	-0.23	0.36	0.00	-0.22	(-0.97	0.46)
<i>How long mother breastfed child</i>																		
=1 if at least 6 months	0.03	0.21	0.00	0.03	(-0.38	0.42)	0.04	0.20	0.00	0.04	(-0.36	0.43)	0.03	0.20	0.00	0.03	(-0.38	0.42)
<i>If child is naughty...</i>																		

continued on next page

Table A.3.72 – continued from previous page

	BAS PC					BAS WR					NFER Math				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.75	0.36	0.00	0.75	(0.03 1.43)	0.76	0.36	0.00	0.76	(0.04 1.44)	0.74	0.36	0.00	0.75	(0.03 1.44)
=1 if mother tells child off	0.09	0.13	0.00	0.09	(-0.16 0.35)	0.09	0.13	0.00	0.09	(-0.16 0.35)	0.09	0.13	0.00	0.09	(-0.17 0.35)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	-0.02	0.19	0.00	-0.02	(-0.39 0.35)	-0.03	0.19	0.00	-0.03	(-0.40 0.36)	-0.02	0.19	0.00	-0.03	(-0.38 0.36)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	0.12	0.16	0.00	0.12	(-0.21 0.43)	0.12	0.16	0.00	0.12	(-0.20 0.43)	0.12	0.16	0.00	0.12	(-0.20 0.44)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.39	0.30	0.01	0.38	(-0.17 0.99)	0.39	0.30	0.01	0.38	(-0.19 1.02)	0.40	0.30	0.01	0.39	(-0.17 1.00)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.74	0.14	0.00	0.74	(0.47 1.00)	0.74	0.13	0.00	0.74	(0.47 1.00)	0.74	0.14	0.00	0.74	(0.47 1.00)
<i>Maternal mental health</i>															
=1 if high distress	0.30	0.25	0.00	0.30	(-0.20 0.78)	0.30	0.25	0.00	0.30	(-0.20 0.77)	0.30	0.25	0.00	0.30	(-0.20 0.78)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.03	0.13	0.00	-0.03	(-0.29 0.24)	-0.03	0.13	0.00	-0.03	(-0.29 0.23)	-0.03	0.13	0.00	-0.03	(-0.29 0.24)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.47	0.21	0.00	-0.47	(-0.89 -0.08)	-0.47	0.21	0.00	-0.47	(-0.90 -0.07)	-0.48	0.21	0.00	-0.47	(-0.91 -0.07)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.13	0.19	0.00	0.12	(-0.25 0.50)	0.13	0.20	0.00	0.13	(-0.25 0.52)	0.13	0.20	0.00	0.13	(-0.26 0.52)
=1 if rented (housing association or private)/ other	-0.03	0.18	0.00	-0.03	(-0.39 0.33)	-0.02	0.18	0.00	-0.02	(-0.38 0.34)	-0.03	0.18	0.00	-0.03	(-0.38 0.34)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	-0.02	0.25	0.00	-0.02	(-0.49 0.50)	-0.04	0.25	0.00	-0.05	(-0.52 0.48)	-0.02	0.25	0.00	-0.03	(-0.50 0.47)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.03	0.22	0.00	-0.03	(-0.46 0.40)	-0.02	0.22	0.00	-0.02	(-0.45 0.41)	-0.03	0.22	0.00	-0.02	(-0.46 0.41)
=1 if managerial/ professional occupation	-0.08	0.21	0.00	-0.08	(-0.49 0.32)	-0.09	0.21	0.00	-0.09	(-0.50 0.33)	-0.09	0.21	0.00	-0.09	(-0.50 0.33)
=1 if technical, semi-routine or routine occupation	-0.09	0.16	0.00	-0.09	(-0.40 0.21)	-0.10	0.16	0.00	-0.10	(-0.40 0.21)	-0.10	0.15	0.00	-0.10	(-0.40 0.20)
=1 if can't remember or father died	-0.07	0.23	0.00	-0.07	(-0.54 0.39)	-0.08	0.24	0.00	-0.07	(-0.55 0.39)	-0.08	0.24	0.00	-0.07	(-0.56 0.39)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	0.26	0.20	0.00	0.26	(-0.13 0.64)	0.26	0.20	0.00	0.27	(-0.13 0.65)	0.27	0.20	0.00	0.27	(-0.12 0.65)
constant	-0.22	0.90	0.05	-0.20	(-2.05 1.56)	-0.17	0.88	0.05	-0.20	(-1.78 1.61)	-0.24	0.93	0.05	-0.24	(-2.08 1.58)
α	9.66	7.68	0.43	7.60	(2.91 29.31)	9.67	6.95	0.37	7.80	(2.81 27.30)	9.56	6.80	0.35	7.78	(3.00 26.10)
$\ln\alpha$	2.08	0.58	0.03	2.03	(1.07 3.38)	2.09	0.59	0.03	2.06	(1.03 3.31)	2.08	0.57	0.03	2.05	(1.10 3.26)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.73: Bayesian Estimates: BAS, NFER and # Chronic Conditions (Eq. 2, TP, Age 7)

	BAS PC					BAS WR					NFER Math							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Standard Background Controls																		
<i>Income</i>																		
log of permanent family income (weekly, imp.)	-0.19	0.08	0.01	-0.19	(-0.34	-0.02)	-0.20	0.08	0.01	-0.20	(-0.36	-0.04)	-0.21	0.08	0.01	-0.21	(-0.37	-0.04)
<i>Maternal education</i>																		
=1 if NVQ level 1 or 2	-0.14	0.08	0.00	-0.14	(-0.29	0.01)	-0.14	0.08	0.00	-0.14	(-0.30	0.01)	-0.14	0.08	0.00	-0.14	(-0.29	0.01)
=1 if NVQ level 3	-0.10	0.09	0.00	-0.10	(-0.27	0.08)	-0.11	0.09	0.00	-0.11	(-0.29	0.07)	-0.10	0.09	0.00	-0.10	(-0.29	0.07)
=1 if overseas qual. only	0.16	0.22	0.00	0.16	(-0.29	0.58)	0.14	0.22	0.00	0.14	(-0.32	0.56)	0.15	0.22	0.00	0.16	(-0.30	0.59)
=1 if none of these	-0.20	0.15	0.00	-0.20	(-0.49	0.09)	-0.21	0.14	0.00	-0.21	(-0.50	0.07)	-0.20	0.15	0.00	-0.20	(-0.49	0.08)
<i>Mother's age at birth</i>																		
=1 if less than 25 years	0.13	0.12	0.00	0.13	(-0.10	0.37)	0.13	0.12	0.00	0.13	(-0.10	0.35)	0.13	0.12	0.00	0.13	(-0.11	0.36)
=1 if 25 to 29 years	0.16	0.10	0.00	0.16	(-0.03	0.35)	0.15	0.10	0.00	0.15	(-0.03	0.35)	0.16	0.10	0.00	0.16	(-0.03	0.35)
=1 if 30 to 34 years	0.06	0.09	0.00	0.06	(-0.11	0.24)	0.06	0.09	0.00	0.06	(-0.12	0.24)	0.06	0.09	0.00	0.06	(-0.12	0.24)
<i>Child demography</i>																		
=1 if female	-0.36	0.06	0.00	-0.36	(-0.48	-0.24)	-0.36	0.06	0.00	-0.36	(-0.48	-0.24)	-0.36	0.06	0.00	-0.36	(-0.49	-0.24)
age (years)	0.20	0.11	0.01	0.21	(-0.03	0.41)	0.19	0.11	0.01	0.19	(-0.02	0.41)	0.21	0.11	0.01	0.21	(-0.01	0.41)
=1 if ethnicity is non-white	-0.03	0.14	0.00	-0.03	(-0.31	0.23)	-0.02	0.14	0.00	-0.02	(-0.31	0.24)	-0.03	0.14	0.00	-0.03	(-0.31	0.24)
<i>Child's health endowment</i>																		
=1 if birth weight < 2500g	0.31	0.12	0.00	0.31	(0.06	0.54)	0.31	0.12	0.00	0.31	(0.07	0.55)	0.31	0.12	0.00	0.31	(0.07	0.55)
<i>Size of household</i>																		
log of hh size incl. cm	-0.28	0.17	0.01	-0.28	(-0.61	0.05)	-0.27	0.17	0.01	-0.27	(-0.60	0.07)	-0.26	0.17	0.01	-0.26	(-0.59	0.07)
<i>Number of older siblings</i>																		
=1 if no older siblings	-0.04	0.07	0.00	-0.04	(-0.18	0.10)	-0.04	0.07	0.00	-0.04	(-0.18	0.10)	-0.04	0.07	0.00	-0.04	(-0.18	0.11)
=1 if two or more older siblings	-0.09	0.10	0.00	-0.09	(-0.28	0.10)	-0.09	0.10	0.00	-0.09	(-0.28	0.10)	-0.09	0.10	0.00	-0.09	(-0.28	0.10)
<i>Respondent's relationship to child</i>																		
=1 if natural mother of child	0.31	0.28	0.01	0.30	(-0.22	0.88)	0.32	0.28	0.01	0.31	(-0.21	0.88)	0.31	0.27	0.01	0.30	(-0.21	0.86)
<i>Country where interview took place</i>																		
=1 if wales	0.48	0.29	0.01	0.48	(-0.09	1.06)	0.48	0.29	0.01	0.48	(-0.07	1.05)	0.49	0.29	0.01	0.49	(-0.08	1.06)
=1 if nireland	-0.10	0.45	0.01	-0.11	(-1.00	0.79)	-0.12	0.46	0.01	-0.13	(-1.01	0.80)	-0.12	0.45	0.01	-0.12	(-1.02	0.76)
=1 if scotland	-0.69	0.31	0.01	-0.70	(-1.29	-0.09)	-0.71	0.31	0.01	-0.71	(-1.32	-0.11)	-0.70	0.31	0.01	-0.70	(-1.30	-0.09)
Time and Care																		
<i>Time mother spends with child</i>																		
=1 if at least just enough	-0.10	0.06	0.00	-0.10	(-0.23	0.03)	-0.10	0.06	0.00	-0.10	(-0.23	0.02)	-0.10	0.07	0.00	-0.10	(-0.23	0.03)
<i>Childcare</i>																		
=1 if formal childcare	-0.01	0.14	0.00	-0.01	(-0.29	0.26)	-0.02	0.14	0.00	-0.01	(-0.29	0.26)	-0.01	0.14	0.00	-0.01	(-0.29	0.26)
=1 if informal/ other childcare	0.02	0.12	0.00	0.02	(-0.21	0.24)	0.03	0.12	0.00	0.04	(-0.20	0.26)	0.02	0.11	0.00	0.02	(-0.21	0.24)
=1 if grandparent care	-0.12	0.07	0.00	-0.12	(-0.26	0.03)	-0.12	0.07	0.00	-0.12	(-0.26	0.03)	-0.12	0.07	0.00	-0.12	(-0.26	0.03)
<i>Maternal employment (t - 1)</i>																		
=1 if working part-time	-0.07	0.07	0.00	-0.07	(-0.21	0.06)	-0.07	0.07	0.00	-0.07	(-0.20	0.07)	-0.07	0.07	0.00	-0.07	(-0.20	0.07)
=1 if working full-time	-0.02	0.15	0.00	-0.02	(-0.31	0.26)	-0.01	0.14	0.00	-0.01	(-0.30	0.27)	-0.01	0.15	0.00	-0.01	(-0.30	0.28)
<i>How long mother breastfed child</i>																		
=1 if at least 6 months	0.09	0.08	0.00	0.09	(-0.07	0.25)	0.09	0.08	0.00	0.09	(-0.06	0.24)	0.09	0.08	0.00	0.09	(-0.06	0.25)
<i>If child is naughty...</i>																		

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Table A.3.73 – continued from previous page

	BAS PC					BAS WR					NFER Math				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.47	0.28	0.00	-0.47	(-1.04 0.06)	-0.48	0.29	0.00	-0.47	(-1.06 0.07)	-0.48	0.29	0.00	-0.47	(-1.07 0.06)
=1 if mother tells child off	0.07	0.06	0.00	0.07	(-0.05 0.19)	0.07	0.06	0.00	0.07	(-0.06 0.19)	0.07	0.06	0.00	0.07	(-0.06 0.19)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	-0.15	0.11	0.00	-0.15	(-0.35 0.07)	-0.15	0.11	0.00	-0.15	(-0.36 0.06)	-0.15	0.11	0.00	-0.15	(-0.35 0.06)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	0.09	0.09	0.00	0.09	(-0.07 0.26)	0.10	0.09	0.00	0.09	(-0.07 0.27)	0.09	0.09	0.00	0.09	(-0.08 0.26)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.05	0.15	0.00	0.05	(-0.25 0.35)	0.05	0.16	0.00	0.04	(-0.25 0.36)	0.05	0.15	0.00	0.04	(-0.25 0.35)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.66	0.06	0.00	0.66	(0.53 0.78)	0.66	0.06	0.00	0.66	(0.53 0.79)	0.66	0.06	0.00	0.66	(0.53 0.78)
<i>Maternal mental health</i>															
=1 if high distress	0.22	0.17	0.00	0.22	(-0.11 0.55)	0.21	0.18	0.00	0.22	(-0.14 0.55)	0.22	0.17	0.00	0.22	(-0.11 0.55)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.10	0.08	0.00	0.10	(-0.06 0.25)	0.10	0.08	0.00	0.10	(-0.05 0.25)	0.10	0.08	0.00	0.10	(-0.05 0.25)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.14	0.08	0.00	-0.14	(-0.30 0.02)	-0.14	0.08	0.00	-0.14	(-0.30 0.02)	-0.14	0.08	0.00	-0.14	(-0.30 0.02)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.17	0.13	0.00	-0.16	(-0.42 0.08)	-0.17	0.12	0.00	-0.17	(-0.42 0.07)	-0.17	0.12	0.00	-0.17	(-0.42 0.07)
=1 if rented (housing association or private)/ other	-0.02	0.10	0.00	-0.02	(-0.22 0.18)	-0.03	0.10	0.00	-0.03	(-0.23 0.17)	-0.03	0.10	0.00	-0.03	(-0.23 0.17)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	-0.17	0.15	0.00	-0.17	(-0.46 0.13)	-0.17	0.15	0.00	-0.18	(-0.47 0.14)	-0.17	0.15	0.00	-0.17	(-0.46 0.13)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.19	0.13	0.00	0.19	(-0.06 0.44)	0.19	0.13	0.00	0.19	(-0.06 0.44)	0.20	0.13	0.00	0.20	(-0.06 0.44)
=1 if managerial/ professional occupation	-0.06	0.09	0.00	-0.06	(-0.23 0.11)	-0.05	0.09	0.00	-0.05	(-0.22 0.12)	-0.05	0.09	0.00	-0.05	(-0.23 0.12)
=1 if technical, semi-routine or routine occupation	0.08	0.07	0.00	0.08	(-0.07 0.23)	0.08	0.07	0.00	0.08	(-0.07 0.22)	0.08	0.07	0.00	0.08	(-0.07 0.22)
=1 if can't remember or father died	0.06	0.13	0.00	0.06	(-0.21 0.32)	0.05	0.13	0.00	0.05	(-0.21 0.32)	0.06	0.13	0.00	0.06	(-0.21 0.32)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	0.31	0.12	0.00	0.31	(0.07 0.54)	0.30	0.12	0.00	0.30	(0.07 0.53)	0.30	0.12	0.00	0.31	(0.07 0.54)
constant	-1.47	0.68	0.06	-1.48	(-2.77 -0.09)	-1.32	0.68	0.06	-1.31	(-2.68 0.03)	-1.39	0.69	0.06	-1.44	(-2.62 0.03)
α	20.01	11.06	1.02	17.36	(7.40 49.05)	19.33	11.63	1.14	16.36	(7.09 51.47)	22.25	19.11	2.40	17.12	(7.20 68.48)
$\ln\alpha$	2.88	0.47	0.04	2.85	(2.00 3.89)	2.83	0.50	0.05	2.79	(1.96 3.94)	2.90	0.58	0.06	2.84	(1.97 4.23)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.74: Bayesian Estimates: BAS, NFER and # Hospital Admissions (Eq. 1, LP, Age 7)

	BAS PC					BAS WR					NFER Math				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
number of hospital admissions	-0.01	0.07	0.00	-0.01	(-0.15 0.12)	-0.06	0.06	0.00	-0.06	(-0.17 0.06)	0.06	0.06	0.00	0.06	(-0.05 0.18)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.19	0.06	0.00	0.19	(0.06 0.32)	-0.03	0.06	0.00	-0.03	(-0.16 0.09)	0.08	0.07	0.00	0.08	(-0.05 0.21)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.16	0.07	0.00	-0.16	(-0.30 -0.03)	-0.19	0.06	0.00	-0.19	(-0.31 -0.06)	-0.21	0.07	0.00	-0.21	(-0.35 -0.08)
=1 if NVQ level 3	0.08	0.08	0.00	0.08	(-0.07 0.24)	-0.03	0.08	0.00	-0.03	(-0.18 0.12)	-0.03	0.08	0.00	-0.03	(-0.18 0.13)
=1 if overseas qual. only	-0.17	0.18	0.00	-0.17	(-0.52 0.17)	-0.17	0.17	0.00	-0.17	(-0.50 0.16)	-0.22	0.17	0.00	-0.22	(-0.55 0.13)
=1 if none of these	-0.07	0.10	0.00	-0.07	(-0.26 0.13)	-0.33	0.09	0.00	-0.34	(-0.52 -0.15)	-0.22	0.10	0.00	-0.22	(-0.42 -0.03)
<i>Mother's age at birth</i>															
=1 if less than 25 years	0.07	0.10	0.00	0.07	(-0.12 0.26)	-0.18	0.10	0.00	-0.18	(-0.37 0.01)	-0.00	0.10	0.00	-0.00	(-0.19 0.19)
=1 if 25 to 29 years	0.06	0.09	0.00	0.06	(-0.12 0.24)	-0.16	0.09	0.00	-0.16	(-0.33 0.01)	-0.03	0.09	0.00	-0.03	(-0.21 0.15)
=1 if 30 to 34 years	0.04	0.09	0.00	0.04	(-0.13 0.22)	-0.00	0.09	0.00	-0.00	(-0.17 0.17)	0.02	0.09	0.00	0.02	(-0.16 0.20)
<i>Child demography</i>															
=1 if female	0.02	0.05	0.00	0.02	(-0.08 0.12)	0.08	0.05	0.00	0.08	(-0.01 0.18)	-0.11	0.05	0.00	-0.11	(-0.21 -0.01)
age (years)	0.20	0.08	0.00	0.20	(0.03 0.36)	0.39	0.08	0.00	0.39	(0.23 0.55)	0.24	0.08	0.00	0.24	(0.08 0.41)
=1 if ethnicity is non-white	-0.12	0.09	0.00	-0.12	(-0.30 0.07)	0.22	0.09	0.00	0.22	(0.04 0.40)	0.09	0.09	0.00	0.09	(-0.10 0.27)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.23	0.10	0.00	-0.23	(-0.42 -0.04)	-0.07	0.09	0.00	-0.07	(-0.25 0.12)	-0.12	0.10	0.00	-0.12	(-0.31 0.07)
<i>Size of household</i>															
log of hh size incl. cm	-0.03	0.10	0.00	-0.03	(-0.22 0.17)	-0.12	0.10	0.00	-0.12	(-0.31 0.07)	-0.25	0.10	0.00	-0.25	(-0.45 -0.05)
<i>Number of older siblings</i>															
=1 if no older siblings	-0.03	0.07	0.00	-0.03	(-0.16 0.10)	0.10	0.06	0.00	0.10	(-0.02 0.22)	-0.09	0.06	0.00	-0.09	(-0.21 0.04)
=1 if two or more older siblings	-0.10	0.08	0.00	-0.10	(-0.26 0.05)	-0.14	0.07	0.00	-0.14	(-0.29 0.00)	-0.09	0.08	0.00	-0.09	(-0.25 0.06)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	0.09	0.15	0.00	0.09	(-0.21 0.40)	-0.05	0.15	0.00	-0.05	(-0.35 0.24)	-0.03	0.15	0.00	-0.03	(-0.32 0.27)
<i>Country where interview took place</i>															
=1 if wales	0.38	0.26	0.00	0.38	(-0.13 0.90)	-0.11	0.25	0.00	-0.11	(-0.60 0.39)	0.04	0.26	0.00	0.04	(-0.45 0.55)
=1 if nireland	0.31	0.50	0.01	0.31	(-0.66 1.30)	-0.15	0.50	0.01	-0.15	(-1.15 0.81)	0.24	0.50	0.01	0.24	(-0.73 1.21)
=1 if scotland	0.13	0.31	0.00	0.13	(-0.48 0.72)	0.17	0.29	0.00	0.17	(-0.41 0.74)	0.23	0.31	0.00	0.23	(-0.36 0.82)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	0.04	0.06	0.00	0.04	(-0.06 0.15)	0.03	0.05	0.00	0.03	(-0.07 0.14)	-0.00	0.06	0.00	-0.00	(-0.11 0.11)
<i>Childcare</i>															
=1 if formal childcare	-0.11	0.11	0.00	-0.11	(-0.32 0.10)	-0.19	0.10	0.00	-0.19	(-0.39 0.02)	-0.08	0.11	0.00	-0.08	(-0.29 0.13)
=1 if informal/ other childcare	-0.01	0.08	0.00	-0.01	(-0.17 0.15)	-0.20	0.08	0.00	-0.20	(-0.35 -0.05)	-0.11	0.08	0.00	-0.11	(-0.27 0.05)
=1 if grandparent care	-0.02	0.06	0.00	-0.02	(-0.14 0.10)	0.07	0.06	0.00	0.07	(-0.05 0.19)	-0.02	0.06	0.00	-0.02	(-0.14 0.11)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	0.07	0.06	0.00	0.07	(-0.05 0.19)	0.15	0.06	0.00	0.15	(0.04 0.27)	0.15	0.06	0.00	0.15	(0.03 0.27)
=1 if working full-time	0.04	0.12	0.00	0.04	(-0.19 0.27)	0.08	0.12	0.00	0.08	(-0.14 0.31)	0.10	0.12	0.00	0.10	(-0.14 0.34)
<i>How long mother breastfed child</i>															

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Table A.3.74 – continued from previous page

	BAS PC					BAS WR					NFER Math							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
=1 if at least 6 months	0.00	0.08	0.00	0.00	(-0.16	0.16)	-0.02	0.08	0.00	-0.02	(-0.17	0.13)	0.03	0.08	0.00	0.03	(-0.13	0.18)
<i>If child is naughty...</i>																		
=1 if mother smacks child	-0.17	0.22	0.00	-0.17	(-0.59	0.26)	0.25	0.21	0.00	0.25	(-0.16	0.66)	-0.00	0.22	0.00	-0.00	(-0.43	0.42)
=1 if mother tells child off	-0.05	0.05	0.00	-0.05	(-0.15	0.05)	-0.11	0.05	0.00	-0.11	(-0.20	-0.01)	-0.08	0.05	0.00	-0.08	(-0.18	0.02)
<i>Bedtime on term-time weekdays</i>																		
=1 if regular bedtime	0.18	0.08	0.00	0.18	(0.02	0.33)	0.05	0.08	0.00	0.05	(-0.10	0.20)	0.11	0.08	0.00	0.11	(-0.05	0.27)
<i>Daily TV/ video consumption</i>																		
=1 if more than 3 hours tv/ videos	-0.02	0.07	0.00	-0.02	(-0.14	0.11)	-0.05	0.06	0.00	-0.05	(-0.18	0.07)	0.03	0.07	0.00	0.03	(-0.10	0.16)
<i>How often mother reads to the child</i>																		
=1 if at least several times a week	-0.08	0.08	0.00	-0.08	(-0.24	0.08)	-0.19	0.08	0.00	-0.19	(-0.34	-0.04)	-0.17	0.08	0.00	-0.17	(-0.33	-0.01)
Health and Health Related Behaviour																		
<i>Maternal physical health</i>																		
=1 if longstanding illness	0.02	0.06	0.00	0.02	(-0.09	0.13)	0.02	0.05	0.00	0.02	(-0.09	0.12)	0.04	0.06	0.00	0.04	(-0.07	0.15)
<i>Maternal mental health</i>																		
=1 if high distress	-0.22	0.11	0.00	-0.22	(-0.43	-0.01)	0.02	0.10	0.00	0.02	(-0.18	0.21)	-0.10	0.11	0.00	-0.10	(-0.31	0.11)
<i>Does mother currently smoke</i>																		
=1 if currently smokes	-0.11	0.05	0.00	-0.11	(-0.21	-0.01)	-0.17	0.05	0.00	-0.17	(-0.28	-0.07)	-0.10	0.05	0.00	-0.10	(-0.21	0.00)
<i>How often mother drinks alcohol</i>																		
=1 if at least 3 times a week	0.05	0.07	0.00	0.05	(-0.09	0.19)	0.09	0.07	0.00	0.09	(-0.05	0.22)	0.03	0.07	0.00	0.03	(-0.11	0.17)
Other																		
<i>Housing tenure</i>																		
=1 if council rented	-0.05	0.08	0.00	-0.05	(-0.21	0.11)	-0.11	0.08	0.00	-0.11	(-0.26	0.04)	-0.09	0.08	0.00	-0.09	(-0.25	0.07)
=1 if rented (housing association or private)/ other	-0.05	0.07	0.00	-0.05	(-0.19	0.08)	-0.10	0.07	0.00	-0.10	(-0.23	0.03)	0.01	0.07	0.00	0.01	(-0.13	0.15)
<i>Child's fruit consumption</i>																		
=1 if cm has at least one portion of fruit per day	0.10	0.10	0.00	0.10	(-0.09	0.29)	-0.03	0.09	0.00	-0.03	(-0.22	0.15)	0.26	0.10	0.00	0.26	(0.07	0.45)
<i>Maternal grandfathers' SES when respondent was aged 14</i>																		
=1 if was not working	-0.05	0.09	0.00	-0.05	(-0.22	0.13)	-0.08	0.09	0.00	-0.08	(-0.25	0.09)	-0.06	0.09	0.00	-0.06	(-0.24	0.11)
=1 if managerial/ professional occupation	0.04	0.08	0.00	0.04	(-0.12	0.20)	0.17	0.08	0.00	0.17	(0.02	0.32)	-0.03	0.08	0.00	-0.03	(-0.19	0.13)
=1 if technical, semi-routine or routine occupation	-0.06	0.06	0.00	-0.06	(-0.19	0.06)	0.02	0.06	0.00	0.02	(-0.10	0.13)	-0.12	0.06	0.00	-0.12	(-0.24	0.00)
=1 if can't remember or father died	-0.06	0.10	0.00	-0.06	(-0.25	0.13)	-0.08	0.09	0.00	-0.08	(-0.26	0.11)	0.05	0.10	0.00	0.05	(-0.14	0.24)
constant	-2.55	0.66	0.01	-2.55	(-3.87	-1.26)	-1.94	0.65	0.01	-1.94	(-3.23	-0.67)	-1.75	0.66	0.01	-1.75	(-3.06	-0.44)
σ_ϵ	0.95	0.03	0.00	0.95	(0.88	0.99)	0.92	0.03	0.00	0.92	(0.84	0.96)	0.96	0.03	0.00	0.96	(0.88	1.00)
σ_ζ	0.19	0.10	0.01	0.18	(0.05	0.42)	0.16	0.10	0.01	0.14	(0.02	0.40)	0.16	0.11	0.01	0.14	(0.03	0.42)
$\rho_{\zeta\epsilon}$	-0.05	0.56	0.05	-0.05	(-0.96	0.95)	0.02	0.54	0.05	0.05	(-0.89	0.90)	-0.35	0.48	0.04	-0.47	(-0.97	0.81)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.75: Bayesian Estimates: BAS, NFER and # Hospital Admissions (Eq. 1, TP, Age 7)

	BAS PC					BAS WR					NFER Math					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)																
number of hospital admissions	-0.14	0.04	0.00	-0.14	(-0.22 -0.06)	-0.03	0.04	0.00	-0.03	(-0.11 0.04)	-0.08	0.04	0.00	-0.07	(-0.16 -0.00)	
Standard Background Controls																
<i>Income</i>																
log of permanent family income (weekly, imp.)	0.20	0.03	0.00	0.20	(0.13 0.26)	0.31	0.03	0.00	0.31	(0.25 0.38)	0.32	0.03	0.00	0.32	(0.26 0.39)	
<i>Maternal education</i>																
=1 if NVQ level 1 or 2	-0.11	0.03	0.00	-0.11	(-0.17 -0.05)	-0.15	0.03	0.00	-0.15	(-0.21 -0.10)	-0.12	0.03	0.00	-0.12	(-0.18 -0.06)	
=1 if NVQ level 3	-0.08	0.03	0.00	-0.08	(-0.15 -0.01)	-0.07	0.03	0.00	-0.07	(-0.14 -0.01)	-0.07	0.03	0.00	-0.07	(-0.14 -0.01)	
=1 if overseas qual. only	-0.21	0.10	0.00	-0.21	(-0.41 -0.02)	-0.22	0.10	0.00	-0.23	(-0.41 -0.04)	-0.04	0.10	0.00	-0.04	(-0.24 0.15)	
=1 if none of these	-0.22	0.06	0.00	-0.22	(-0.34 -0.10)	-0.25	0.06	0.00	-0.25	(-0.36 -0.13)	-0.22	0.06	0.00	-0.22	(-0.34 -0.10)	
<i>Mother's age at birth</i>																
=1 if less than 25 years	-0.02	0.05	0.00	-0.02	(-0.11 0.07)	-0.16	0.04	0.00	-0.16	(-0.25 -0.07)	0.01	0.05	0.00	0.01	(-0.08 0.10)	
=1 if 25 to 29 years	0.01	0.04	0.00	0.01	(-0.06 0.08)	-0.02	0.03	0.00	-0.02	(-0.09 0.05)	0.05	0.04	0.00	0.05	(-0.02 0.12)	
=1 if 30 to 34 years	0.02	0.03	0.00	0.02	(-0.04 0.09)	0.00	0.03	0.00	0.00	(-0.06 0.07)	0.05	0.03	0.00	0.05	(-0.02 0.11)	
<i>Child demography</i>																
=1 if female	0.05	0.02	0.00	0.05	(0.00 0.09)	0.13	0.02	0.00	0.13	(0.08 0.17)	-0.07	0.02	0.00	-0.07	(-0.11 -0.02)	
age (years)	0.39	0.05	0.00	0.39	(0.30 0.48)	0.47	0.04	0.00	0.47	(0.38 0.56)	0.48	0.05	0.00	0.48	(0.40 0.57)	
=1 if ethnicity is non-white	-0.10	0.05	0.00	-0.10	(-0.21 0.00)	0.25	0.05	0.00	0.25	(0.15 0.35)	-0.01	0.05	0.00	-0.01	(-0.12 0.09)	
<i>Child's health endowment</i>																
=1 if birth weight < 2500g	-0.28	0.05	0.00	-0.28	(-0.39 -0.18)	-0.17	0.05	0.00	-0.17	(-0.27 -0.08)	-0.25	0.05	0.00	-0.25	(-0.36 -0.15)	
<i>Size of household</i>																
log of hh size incl. cm	-0.11	0.07	0.00	-0.11	(-0.25 0.03)	-0.18	0.07	0.00	-0.18	(-0.31 -0.04)	-0.09	0.07	0.00	-0.09	(-0.23 0.05)	
<i>Number of older siblings</i>																
=1 if no older siblings	0.05	0.03	0.00	0.05	(-0.01 0.10)	0.13	0.03	0.00	0.13	(0.08 0.18)	0.05	0.03	0.00	0.05	(-0.00 0.10)	
=1 if two or more older siblings	-0.06	0.04	0.00	-0.06	(-0.14 0.01)	-0.19	0.04	0.00	-0.19	(-0.26 -0.12)	-0.08	0.04	0.00	-0.08	(-0.15 -0.01)	
<i>Respondent's relationship to child</i>																
=1 if natural mother of child	0.10	0.09	0.00	0.10	(-0.08 0.29)	0.01	0.09	0.00	0.01	(-0.17 0.19)	0.00	0.09	0.00	0.00	(-0.18 0.19)	
<i>Country where interview took place</i>																
=1 if wales	0.19	0.12	0.00	0.19	(-0.04 0.42)	0.08	0.11	0.00	0.08	(-0.14 0.30)	0.23	0.12	0.00	0.23	(0.00 0.46)	
=1 if nireland	0.51	0.25	0.00	0.51	(0.02 1.01)	0.60	0.24	0.00	0.60	(0.14 1.07)	0.53	0.25	0.00	0.53	(0.04 1.02)	
=1 if scotland	0.21	0.14	0.00	0.21	(-0.07 0.49)	-0.25	0.14	0.00	-0.25	(-0.52 0.01)	0.16	0.14	0.00	0.16	(-0.11 0.43)	
Time and Care																
<i>Time mother spends with child</i>																
=1 if at least just enough	-0.00	0.03	0.00	-0.00	(-0.05 0.05)	0.05	0.02	0.00	0.05	(0.00 0.10)	0.05	0.02	0.00	0.05	(0.00 0.10)	
<i>Childcare</i>																
=1 if formal childcare	0.06	0.05	0.00	0.06	(-0.04 0.17)	-0.03	0.05	0.00	-0.03	(-0.13 0.07)	0.04	0.05	0.00	0.04	(-0.06 0.15)	
=1 if informal/ other childcare	-0.02	0.04	0.00	-0.02	(-0.11 0.06)	-0.05	0.04	0.00	-0.05	(-0.13 0.02)	-0.07	0.04	0.00	-0.07	(-0.15 0.01)	
=1 if grandparent care	-0.04	0.03	0.00	-0.04	(-0.10 0.02)	0.00	0.03	0.00	0.00	(-0.05 0.06)	0.04	0.03	0.00	0.04	(-0.02 0.09)	
<i>Maternal employment ($t - 1$)</i>																
=1 if working part-time	-0.04	0.03	0.00	-0.04	(-0.09 0.02)	0.02	0.03	0.00	0.01	(-0.04 0.07)	-0.03	0.03	0.00	-0.03	(-0.09 0.02)	
=1 if working full-time	0.01	0.06	0.00	0.01	(-0.10 0.12)	-0.10	0.05	0.00	-0.10	(-0.20 0.01)	-0.05	0.06	0.00	-0.05	(-0.15 0.06)	
<i>How long mother breastfed child</i>																

continued on next page

Table A.3.75 – continued from previous page

	BAS PC					BAS WR					NFER Math				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.11	0.03	0.00	0.11	(0.05 0.17)	0.09	0.03	0.00	0.09	(0.03 0.14)	0.11	0.03	0.00	0.11	(0.05 0.17)
<i>If child is naughty...</i>															
=1 if mother smacks child	-0.03	0.13	0.00	-0.03	(-0.28 0.23)	-0.05	0.12	0.00	-0.05	(-0.29 0.18)	-0.16	0.13	0.00	-0.16	(-0.41 0.09)
=1 if mother tells child off	-0.02	0.02	0.00	-0.02	(-0.07 0.02)	-0.01	0.02	0.00	-0.01	(-0.06 0.03)	-0.02	0.02	0.00	-0.02	(-0.06 0.03)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.08	0.04	0.00	0.08	(-0.01 0.17)	0.11	0.04	0.00	0.11	(0.03 0.19)	0.01	0.04	0.00	0.01	(-0.07 0.10)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.01	0.03	0.00	-0.01	(-0.08 0.06)	-0.07	0.03	0.00	-0.07	(-0.13 -0.00)	-0.05	0.03	0.00	-0.05	(-0.12 0.01)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.15	0.04	0.00	-0.15	(-0.23 -0.06)	-0.24	0.04	0.00	-0.24	(-0.31 -0.16)	-0.17	0.04	0.00	-0.17	(-0.25 -0.10)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	-0.02	0.03	0.00	-0.02	(-0.07 0.04)	-0.00	0.03	0.00	-0.00	(-0.05 0.05)	-0.08	0.03	0.00	-0.08	(-0.13 -0.02)
<i>Maternal mental health</i>															
=1 if high distress	-0.11	0.08	0.00	-0.11	(-0.27 0.04)	-0.12	0.07	0.00	-0.12	(-0.26 0.03)	0.00	0.08	0.00	0.00	(-0.14 0.15)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.02	0.03	0.00	-0.02	(-0.08 0.04)	-0.11	0.03	0.00	-0.11	(-0.17 -0.06)	-0.09	0.03	0.00	-0.09	(-0.15 -0.03)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	0.03	0.03	0.00	0.03	(-0.03 0.09)	0.03	0.03	0.00	0.03	(-0.03 0.08)	0.03	0.03	0.00	0.03	(-0.03 0.08)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.10	0.05	0.00	-0.10	(-0.19 0.00)	-0.09	0.05	0.00	-0.09	(-0.19 0.00)	-0.10	0.05	0.00	-0.09	(-0.19 0.00)
=1 if rented (housing association or private)/ other	-0.01	0.04	0.00	-0.01	(-0.09 0.07)	-0.02	0.04	0.00	-0.02	(-0.10 0.05)	-0.00	0.04	0.00	-0.00	(-0.08 0.08)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.07	0.06	0.00	0.07	(-0.05 0.18)	0.09	0.05	0.00	0.09	(-0.02 0.20)	0.13	0.06	0.00	0.13	(0.02 0.24)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.06	0.05	0.00	-0.06	(-0.16 0.04)	-0.07	0.05	0.00	-0.07	(-0.16 0.03)	-0.04	0.05	0.00	-0.04	(-0.14 0.06)
=1 if managerial/ professional occupation	0.04	0.03	0.00	0.04	(-0.03 0.10)	0.10	0.03	0.00	0.10	(0.04 0.16)	0.01	0.03	0.00	0.01	(-0.05 0.07)
=1 if technical, semi-routine or routine occupation	-0.06	0.03	0.00	-0.06	(-0.11 -0.00)	-0.03	0.03	0.00	-0.03	(-0.08 0.03)	-0.06	0.03	0.00	-0.06	(-0.11 0.00)
=1 if can't remember or father died	-0.09	0.05	0.00	-0.09	(-0.19 0.02)	0.01	0.05	0.00	0.01	(-0.09 0.11)	0.04	0.05	0.00	0.04	(-0.06 0.14)
constant	-3.88	0.41	0.00	-3.88	(-4.69 -3.07)	-4.99	0.39	0.00	-4.99	(-5.78 -4.23)	-5.22	0.41	0.00	-5.22	(-6.01 -4.42)
σ_ϵ	0.94	0.02	0.00	0.94	(0.88 0.96)	0.89	0.02	0.00	0.90	(0.82 0.92)	0.93	0.02	0.00	0.94	(0.87 0.96)
σ_ζ	0.22	0.08	0.01	0.20	(0.11 0.39)	0.20	0.09	0.01	0.18	(0.07 0.39)	0.16	0.10	0.03	0.15	(0.04 0.38)
$\rho_{\zeta\xi}$	0.60	0.31	0.04	0.64	(-0.09 1.00)	0.01	0.38	0.04	-0.01	(-0.67 0.75)	0.10	0.52	0.09	0.21	(-0.88 0.87)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.76: Bayesian Estimates: BAS, NFER and # Hospital Admissions (Eq. 2, LP, Age 7)

	BAS PC					BAS WR					NFER Math							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Standard Background Controls																		
<i>Income</i>																		
log of permanent family income (weekly, imp.)	-0.05	0.22	0.01	-0.06	(-0.47	0.38)	-0.07	0.22	0.01	-0.08	(-0.51	0.39)	-0.05	0.22	0.01	-0.05	(-0.48	0.38)
<i>Maternal education</i>																		
=1 if NVQ level 1 or 2	0.03	0.23	0.00	0.04	(-0.44	0.50)	0.03	0.24	0.00	0.03	(-0.44	0.49)	0.01	0.24	0.00	0.01	(-0.45	0.49)
=1 if NVQ level 3	0.14	0.27	0.00	0.14	(-0.40	0.67)	0.13	0.27	0.00	0.13	(-0.39	0.68)	0.13	0.27	0.00	0.12	(-0.40	0.66)
=1 if overseas qual. only	-0.24	0.56	0.01	-0.23	(-1.39	0.80)	-0.24	0.55	0.01	-0.23	(-1.34	0.83)	-0.23	0.56	0.01	-0.22	(-1.35	0.82)
=1 if none of these	0.47	0.30	0.00	0.47	(-0.13	1.07)	0.46	0.30	0.00	0.46	(-0.13	1.06)	0.46	0.31	0.00	0.46	(-0.15	1.06)
<i>Mother's age at birth</i>																		
=1 if less than 25 years	-0.17	0.32	0.00	-0.18	(-0.81	0.46)	-0.19	0.32	0.00	-0.18	(-0.82	0.43)	-0.17	0.31	0.00	-0.17	(-0.78	0.44)
=1 if 25 to 29 years	-0.25	0.30	0.00	-0.25	(-0.83	0.35)	-0.25	0.30	0.00	-0.25	(-0.84	0.34)	-0.25	0.30	0.00	-0.25	(-0.82	0.34)
=1 if 30 to 34 years	-0.34	0.30	0.00	-0.34	(-0.94	0.25)	-0.34	0.31	0.00	-0.34	(-0.94	0.26)	-0.34	0.30	0.00	-0.34	(-0.93	0.26)
<i>Child demography</i>																		
=1 if female	-0.12	0.17	0.00	-0.12	(-0.47	0.22)	-0.12	0.18	0.00	-0.12	(-0.46	0.22)	-0.13	0.18	0.00	-0.12	(-0.48	0.21)
age (years)	-0.41	0.27	0.02	-0.41	(-0.95	0.12)	-0.38	0.26	0.02	-0.38	(-0.90	0.13)	-0.41	0.24	0.02	-0.41	(-0.88	0.05)
=1 if ethnicity is non-white	0.03	0.32	0.00	0.03	(-0.60	0.64)	0.02	0.32	0.00	0.02	(-0.61	0.64)	0.03	0.32	0.00	0.03	(-0.60	0.65)
<i>Child's health endowment</i>																		
=1 if birth weight < 2500g	-0.10	0.33	0.00	-0.09	(-0.78	0.55)	-0.11	0.33	0.00	-0.10	(-0.78	0.52)	-0.11	0.34	0.00	-0.11	(-0.79	0.54)
<i>Size of household</i>																		
log of hh size incl. cm	-0.22	0.30	0.01	-0.22	(-0.83	0.37)	-0.20	0.32	0.01	-0.20	(-0.85	0.41)	-0.23	0.32	0.01	-0.22	(-0.86	0.39)
<i>Number of older siblings</i>																		
=1 if no older siblings	-0.10	0.22	0.00	-0.10	(-0.53	0.34)	-0.09	0.22	0.00	-0.09	(-0.54	0.34)	-0.11	0.22	0.00	-0.11	(-0.54	0.32)
=1 if two or more older siblings	-0.38	0.28	0.00	-0.38	(-0.94	0.17)	-0.38	0.28	0.00	-0.38	(-0.92	0.17)	-0.38	0.28	0.00	-0.38	(-0.93	0.16)
<i>Respondent's relationship to child</i>																		
=1 if natural mother of child	0.23	0.59	0.02	0.22	(-0.89	1.39)	0.22	0.60	0.02	0.20	(-0.92	1.47)	0.21	0.60	0.02	0.19	(-0.93	1.45)
<i>Country where interview took place</i>																		
=1 if wales	0.26	0.56	0.01	0.26	(-0.84	1.37)	0.26	0.55	0.01	0.26	(-0.81	1.35)	0.24	0.55	0.01	0.23	(-0.83	1.31)
=1 if nireland	-0.16	0.61	0.01	-0.16	(-1.37	1.03)	-0.15	0.61	0.01	-0.15	(-1.33	1.05)	-0.16	0.62	0.01	-0.16	(-1.38	1.03)
=1 if scotland	-0.29	0.59	0.01	-0.29	(-1.43	0.87)	-0.29	0.59	0.01	-0.30	(-1.46	0.86)	-0.29	0.59	0.01	-0.29	(-1.46	0.86)
Time and Care																		
<i>Time mother spends with child</i>																		
=1 if at least just enough	-0.05	0.20	0.00	-0.05	(-0.44	0.33)	-0.05	0.20	0.00	-0.05	(-0.44	0.33)	-0.06	0.20	0.00	-0.06	(-0.45	0.33)
<i>Childcare</i>																		
=1 if formal childcare	0.05	0.39	0.00	0.05	(-0.71	0.80)	0.06	0.39	0.00	0.07	(-0.74	0.83)	0.04	0.39	0.00	0.04	(-0.73	0.80)
=1 if informal/ other childcare	0.41	0.30	0.00	0.41	(-0.20	1.00)	0.41	0.30	0.00	0.41	(-0.18	0.99)	0.40	0.30	0.00	0.40	(-0.20	0.99)
=1 if grandparent care	0.40	0.21	0.00	0.40	(-0.02	0.81)	0.39	0.21	0.00	0.40	(-0.01	0.80)	0.41	0.21	0.00	0.40	(-0.01	0.82)
<i>Maternal employment (t - 1)</i>																		
=1 if working part-time	-0.17	0.21	0.00	-0.17	(-0.57	0.24)	-0.17	0.21	0.00	-0.17	(-0.58	0.25)	-0.17	0.21	0.00	-0.18	(-0.58	0.24)
=1 if working full-time	-0.62	0.48	0.01	-0.61	(-1.60	0.30)	-0.61	0.48	0.01	-0.60	(-1.57	0.30)	-0.61	0.48	0.01	-0.59	(-1.57	0.28)
<i>How long mother breastfed child</i>																		
=1 if at least 6 months	-0.27	0.30	0.00	-0.26	(-0.87	0.31)	-0.27	0.30	0.00	-0.26	(-0.88	0.31)	-0.27	0.30	0.00	-0.26	(-0.87	0.30)
<i>If child is naughty...</i>																		

continued on next page

Table A.3.76 – continued from previous page

	BAS PC					BAS WR					NFER Math				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.08	0.53	0.01	-0.07	(-1.14 0.94)	-0.08	0.53	0.01	-0.07	(-1.13 0.91)	-0.10	0.52	0.01	-0.09	(-1.15 0.90)
=1 if mother tells child off	0.28	0.18	0.00	0.28	(-0.07 0.65)	0.28	0.18	0.00	0.28	(-0.08 0.64)	0.28	0.18	0.00	0.28	(-0.08 0.63)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.14	0.26	0.00	0.14	(-0.36 0.67)	0.15	0.26	0.00	0.14	(-0.35 0.67)	0.15	0.26	0.00	0.16	(-0.35 0.68)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.33	0.23	0.00	-0.33	(-0.79 0.13)	-0.34	0.24	0.00	-0.33	(-0.80 0.12)	-0.33	0.24	0.00	-0.33	(-0.80 0.11)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.20	0.37	0.01	0.19	(-0.49 0.96)	0.19	0.37	0.01	0.19	(-0.51 0.94)	0.19	0.38	0.01	0.19	(-0.54 0.95)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.24	0.20	0.00	0.24	(-0.15 0.62)	0.24	0.20	0.00	0.24	(-0.15 0.63)	0.25	0.20	0.00	0.25	(-0.13 0.64)
<i>Maternal mental health</i>															
=1 if high distress	-0.19	0.40	0.00	-0.18	(-1.00 0.55)	-0.19	0.40	0.00	-0.18	(-0.98 0.56)	-0.21	0.39	0.00	-0.20	(-1.00 0.54)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.01	0.18	0.00	0.01	(-0.34 0.37)	0.01	0.18	0.00	0.01	(-0.35 0.37)	0.01	0.18	0.00	0.01	(-0.34 0.37)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.42	0.29	0.00	-0.42	(-1.00 0.14)	-0.42	0.29	0.00	-0.42	(-1.01 0.14)	-0.42	0.29	0.00	-0.41	(-1.00 0.14)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.29	0.26	0.00	0.29	(-0.22 0.80)	0.28	0.26	0.00	0.28	(-0.23 0.79)	0.30	0.25	0.00	0.30	(-0.21 0.80)
=1 if rented (housing association or private)/ other	-0.14	0.25	0.00	-0.13	(-0.63 0.36)	-0.14	0.25	0.00	-0.14	(-0.62 0.35)	-0.13	0.25	0.00	-0.13	(-0.63 0.35)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	-0.45	0.32	0.01	-0.46	(-1.08 0.18)	-0.46	0.32	0.00	-0.47	(-1.07 0.17)	-0.44	0.32	0.01	-0.44	(-1.05 0.19)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.10	0.29	0.00	0.11	(-0.48 0.67)	0.11	0.30	0.00	0.11	(-0.49 0.69)	0.10	0.30	0.00	0.11	(-0.47 0.68)
=1 if managerial/ professional occupation	0.10	0.29	0.00	0.10	(-0.47 0.67)	0.10	0.29	0.00	0.11	(-0.46 0.68)	0.11	0.29	0.00	0.12	(-0.46 0.66)
=1 if technical, semi-routine or routine occupation	0.43	0.21	0.00	0.43	(0.01 0.85)	0.43	0.21	0.00	0.44	(0.02 0.84)	0.43	0.21	0.00	0.43	(0.01 0.85)
=1 if can't remember or father died	-0.37	0.36	0.00	-0.36	(-1.09 0.33)	-0.37	0.35	0.00	-0.36	(-1.09 0.31)	-0.35	0.36	0.00	-0.35	(-1.08 0.33)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	0.04	0.28	0.00	0.05	(-0.53 0.59)	0.04	0.28	0.00	0.04	(-0.53 0.59)	0.04	0.28	0.00	0.04	(-0.53 0.58)
constant	0.21	0.92	0.04	0.19	(-1.54 2.11)	0.18	0.89	0.04	0.16	(-1.54 1.91)	0.23	0.91	0.04	0.22	(-1.52 1.97)
α	0.75	0.32	0.01	0.68	(0.38 1.53)	0.77	0.31	0.01	0.70	(0.39 1.58)	0.78	0.34	0.01	0.70	(0.38 1.69)
$\ln\alpha$	-0.36	0.36	0.01	-0.39	(-0.97 0.43)	-0.33	0.36	0.01	-0.35	(-0.95 0.46)	-0.33	0.37	0.01	-0.36	(-0.96 0.52)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.77: Bayesian Estimates: BAS, NFER and # Hospital Admissions (Eq. 2, TP, Age 7)

	BAS PC					BAS WR					NFER Math							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Standard Background Controls																		
<i>Income</i>																		
log of permanent family income (weekly, imp.)	-0.12	0.10	0.01	-0.12	(-0.33	0.07)	-0.14	0.11	0.01	-0.13	(-0.35	0.08)	-0.14	0.11	0.01	-0.14	(-0.33	0.08)
<i>Maternal education</i>																		
=1 if NVQ level 1 or 2	0.01	0.10	0.00	0.02	(-0.19	0.21)	0.01	0.10	0.00	0.01	(-0.19	0.22)	0.01	0.10	0.00	0.01	(-0.19	0.21)
=1 if NVQ level 3	-0.21	0.12	0.00	-0.21	(-0.45	0.03)	-0.21	0.12	0.00	-0.21	(-0.46	0.03)	-0.21	0.12	0.00	-0.21	(-0.45	0.03)
=1 if overseas qual. only	0.73	0.26	0.00	0.73	(0.22	1.24)	0.72	0.27	0.00	0.72	(0.18	1.24)	0.72	0.27	0.00	0.72	(0.17	1.24)
=1 if none of these	-0.12	0.19	0.00	-0.12	(-0.51	0.25)	-0.11	0.20	0.00	-0.11	(-0.49	0.27)	-0.11	0.19	0.00	-0.11	(-0.49	0.27)
<i>Mother's age at birth</i>																		
=1 if less than 25 years	0.06	0.16	0.00	0.06	(-0.25	0.37)	0.05	0.16	0.00	0.06	(-0.25	0.36)	0.05	0.16	0.00	0.05	(-0.25	0.36)
=1 if 25 to 29 years	0.11	0.13	0.00	0.11	(-0.14	0.35)	0.11	0.13	0.00	0.11	(-0.14	0.36)	0.10	0.13	0.00	0.10	(-0.15	0.35)
=1 if 30 to 34 years	-0.00	0.12	0.00	-0.00	(-0.22	0.23)	0.00	0.12	0.00	0.00	(-0.22	0.24)	0.00	0.12	0.00	0.00	(-0.22	0.24)
<i>Child demography</i>																		
=1 if female	-0.48	0.08	0.00	-0.48	(-0.63	-0.32)	-0.48	0.08	0.00	-0.48	(-0.64	-0.32)	-0.48	0.08	0.00	-0.48	(-0.63	-0.32)
age (years)	-0.26	0.14	0.01	-0.26	(-0.53	0.03)	-0.24	0.14	0.01	-0.24	(-0.52	0.06)	-0.24	0.15	0.01	-0.24	(-0.53	0.04)
=1 if ethnicity is non-white	-0.03	0.18	0.00	-0.02	(-0.39	0.33)	-0.02	0.19	0.00	-0.02	(-0.40	0.35)	-0.02	0.19	0.00	-0.02	(-0.38	0.34)
<i>Child's health endowment</i>																		
=1 if birth weight < 2500g	0.07	0.18	0.00	0.07	(-0.29	0.41)	0.07	0.18	0.00	0.07	(-0.29	0.41)	0.07	0.18	0.00	0.07	(-0.27	0.43)
<i>Size of household</i>																		
log of hh size incl. cm	-0.21	0.23	0.01	-0.21	(-0.65	0.25)	-0.21	0.22	0.01	-0.21	(-0.65	0.24)	-0.21	0.22	0.01	-0.21	(-0.65	0.23)
<i>Number of older siblings</i>																		
=1 if no older siblings	0.03	0.10	0.00	0.03	(-0.17	0.23)	0.04	0.10	0.00	0.04	(-0.15	0.23)	0.04	0.10	0.00	0.04	(-0.16	0.23)
=1 if two or more older siblings	0.04	0.12	0.00	0.04	(-0.21	0.28)	0.05	0.13	0.00	0.05	(-0.20	0.30)	0.05	0.13	0.00	0.05	(-0.20	0.30)
<i>Respondent's relationship to child</i>																		
=1 if natural mother of child	0.34	0.35	0.01	0.32	(-0.33	1.05)	0.31	0.36	0.01	0.31	(-0.36	1.03)	0.35	0.36	0.01	0.34	(-0.33	1.08)
<i>Country where interview took place</i>																		
=1 if wales	0.39	0.35	0.01	0.39	(-0.30	1.07)	0.38	0.36	0.01	0.37	(-0.34	1.08)	0.36	0.36	0.01	0.36	(-0.34	1.07)
=1 if nireland	0.51	0.51	0.01	0.52	(-0.50	1.49)	0.51	0.51	0.01	0.51	(-0.52	1.48)	0.47	0.50	0.01	0.48	(-0.53	1.43)
=1 if scotland	0.26	0.39	0.01	0.26	(-0.49	1.03)	0.24	0.38	0.01	0.23	(-0.51	1.01)	0.22	0.40	0.01	0.22	(-0.55	1.01)
Time and Care																		
<i>Time mother spends with child</i>																		
=1 if at least just enough	0.15	0.09	0.00	0.15	(-0.02	0.32)	0.15	0.09	0.00	0.15	(-0.02	0.33)	0.16	0.09	0.00	0.16	(-0.02	0.33)
<i>Childcare</i>																		
=1 if formal childcare	-0.46	0.21	0.00	-0.46	(-0.88	-0.07)	-0.47	0.21	0.00	-0.47	(-0.88	-0.07)	-0.47	0.21	0.00	-0.46	(-0.89	-0.07)
=1 if informal/ other childcare	-0.05	0.16	0.00	-0.04	(-0.36	0.25)	-0.04	0.16	0.00	-0.04	(-0.35	0.26)	-0.04	0.16	0.00	-0.04	(-0.35	0.26)
=1 if grandparent care	-0.04	0.10	0.00	-0.04	(-0.23	0.15)	-0.04	0.10	0.00	-0.04	(-0.22	0.15)	-0.04	0.10	0.00	-0.04	(-0.22	0.16)
<i>Maternal employment (t - 1)</i>																		
=1 if working part-time	0.04	0.09	0.00	0.04	(-0.14	0.22)	0.04	0.09	0.00	0.04	(-0.15	0.22)	0.04	0.09	0.00	0.04	(-0.15	0.22)
=1 if working full-time	0.17	0.19	0.00	0.17	(-0.21	0.54)	0.16	0.19	0.00	0.16	(-0.21	0.53)	0.16	0.19	0.00	0.16	(-0.20	0.53)
<i>How long mother breastfed child</i>																		
=1 if at least 6 months	-0.13	0.11	0.00	-0.13	(-0.35	0.08)	-0.13	0.11	0.00	-0.13	(-0.34	0.08)	-0.13	0.11	0.00	-0.13	(-0.34	0.08)
<i>If child is naughty...</i>																		

continued on next page

Table A.3.77 – continued from previous page

	BAS PC					BAS WR					NFER Math				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.31	0.30	0.00	0.32	(-0.28 0.89)	0.32	0.30	0.00	0.33	(-0.28 0.89)	0.33	0.30	0.00	0.33	(-0.30 0.90)
=1 if mother tells child off	-0.08	0.08	0.00	-0.08	(-0.24 0.08)	-0.07	0.08	0.00	-0.07	(-0.24 0.09)	-0.07	0.08	0.00	-0.07	(-0.24 0.09)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	-0.21	0.14	0.00	-0.21	(-0.48 0.06)	-0.21	0.14	0.00	-0.21	(-0.47 0.06)	-0.21	0.14	0.00	-0.21	(-0.49 0.07)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.04	0.12	0.00	-0.04	(-0.28 0.19)	-0.06	0.12	0.00	-0.06	(-0.30 0.16)	-0.06	0.12	0.00	-0.06	(-0.29 0.17)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.19	0.19	0.00	-0.19	(-0.56 0.18)	-0.18	0.19	0.00	-0.18	(-0.55 0.20)	-0.17	0.19	0.00	-0.17	(-0.55 0.20)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.40	0.09	0.00	0.40	(0.23 0.58)	0.40	0.09	0.00	0.40	(0.22 0.57)	0.40	0.09	0.00	0.40	(0.22 0.58)
<i>Maternal mental health</i>															
=1 if high distress	-0.11	0.26	0.00	-0.11	(-0.61 0.38)	-0.11	0.26	0.00	-0.10	(-0.62 0.38)	-0.11	0.26	0.00	-0.11	(-0.63 0.38)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.21	0.10	0.00	0.21	(0.01 0.41)	0.21	0.10	0.00	0.21	(0.01 0.41)	0.20	0.10	0.00	0.20	(0.01 0.41)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.03	0.10	0.00	-0.03	(-0.23 0.18)	-0.03	0.10	0.00	-0.03	(-0.24 0.17)	-0.03	0.11	0.00	-0.03	(-0.24 0.18)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.27	0.16	0.00	-0.27	(-0.60 0.05)	-0.30	0.17	0.00	-0.30	(-0.63 0.03)	-0.30	0.17	0.00	-0.30	(-0.62 0.02)
=1 if rented (housing association or private)/ other	-0.18	0.14	0.00	-0.18	(-0.45 0.09)	-0.19	0.14	0.00	-0.19	(-0.46 0.09)	-0.18	0.14	0.00	-0.18	(-0.46 0.09)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	-0.06	0.20	0.00	-0.06	(-0.44 0.35)	-0.06	0.20	0.00	-0.07	(-0.45 0.34)	-0.06	0.21	0.00	-0.06	(-0.46 0.35)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.17	0.17	0.00	0.17	(-0.16 0.48)	0.17	0.16	0.00	0.17	(-0.15 0.49)	0.17	0.17	0.00	0.17	(-0.18 0.49)
=1 if managerial/ professional occupation	-0.12	0.12	0.00	-0.12	(-0.35 0.11)	-0.11	0.12	0.00	-0.11	(-0.34 0.12)	-0.11	0.12	0.00	-0.11	(-0.34 0.12)
=1 if technical, semi-routine or routine occupation	-0.08	0.10	0.00	-0.08	(-0.28 0.11)	-0.08	0.10	0.00	-0.08	(-0.27 0.11)	-0.08	0.10	0.00	-0.08	(-0.27 0.11)
=1 if can't remember or father died	-0.10	0.18	0.00	-0.10	(-0.46 0.23)	-0.09	0.18	0.00	-0.09	(-0.45 0.26)	-0.09	0.18	0.00	-0.09	(-0.44 0.26)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	0.18	0.17	0.00	0.18	(-0.16 0.50)	0.18	0.17	0.00	0.18	(-0.16 0.52)	0.18	0.17	0.00	0.18	(-0.16 0.50)
constant	0.05	0.75	0.06	0.08	(-1.43 1.53)	0.07	0.83	0.07	0.07	(-1.61 1.73)	0.01	0.80	0.07	-0.01	(-1.54 1.60)
α	0.86	0.17	0.01	0.84	(0.60 1.27)	0.84	0.16	0.01	0.82	(0.60 1.22)	0.84	0.16	0.01	0.82	(0.59 1.22)
$\ln\alpha$	-0.16	0.19	0.01	-0.17	(-0.51 0.24)	-0.19	0.18	0.01	-0.20	(-0.52 0.20)	-0.19	0.18	0.01	-0.19	(-0.52 0.20)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.78: Bayesian Estimates: BAS, NFER and SDQ HA (Eq. 1, LP, Age 7)

	BAS PC					BAS WR					NFER Math				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
hyperactivity/inattention	-0.05	0.02	0.00	-0.05	(-0.10 -0.01)	-0.08	0.02	0.00	-0.08	(-0.12 -0.04)	-0.09	0.02	0.00	-0.09	(-0.15 -0.05)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.19	0.07	0.00	0.19	(0.05 0.34)	-0.04	0.07	0.00	-0.04	(-0.17 0.10)	0.07	0.07	0.00	0.07	(-0.07 0.22)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.08	0.08	0.00	-0.08	(-0.23 0.07)	-0.10	0.07	0.00	-0.10	(-0.24 0.04)	-0.15	0.08	0.00	-0.15	(-0.30 0.01)
=1 if NVQ level 3	0.13	0.09	0.00	0.13	(-0.05 0.30)	-0.03	0.08	0.00	-0.03	(-0.19 0.14)	-0.03	0.09	0.00	-0.03	(-0.20 0.14)
=1 if overseas qual. only	-0.07	0.20	0.00	-0.07	(-0.47 0.32)	-0.15	0.19	0.00	-0.15	(-0.53 0.23)	-0.07	0.20	0.00	-0.07	(-0.47 0.31)
=1 if none of these	0.07	0.11	0.00	0.07	(-0.16 0.29)	-0.25	0.11	0.00	-0.25	(-0.46 -0.04)	-0.13	0.11	0.00	-0.13	(-0.35 0.09)
<i>Mother's age at birth</i>															
=1 if less than 25 years	0.17	0.11	0.00	0.17	(-0.06 0.39)	-0.19	0.11	0.00	-0.20	(-0.41 0.02)	0.04	0.11	0.00	0.04	(-0.18 0.26)
=1 if 25 to 29 years	0.15	0.10	0.00	0.15	(-0.05 0.35)	-0.18	0.10	0.00	-0.18	(-0.37 0.02)	0.02	0.10	0.00	0.02	(-0.18 0.22)
=1 if 30 to 34 years	0.14	0.10	0.00	0.14	(-0.06 0.34)	-0.03	0.10	0.00	-0.03	(-0.23 0.16)	0.09	0.10	0.00	0.09	(-0.11 0.29)
<i>Child demography</i>															
=1 if female	-0.03	0.06	0.00	-0.03	(-0.14 0.09)	0.08	0.06	0.00	0.08	(-0.03 0.18)	-0.14	0.06	0.00	-0.14	(-0.25 -0.02)
age (years)	0.17	0.09	0.00	0.17	(-0.01 0.35)	0.39	0.09	0.00	0.39	(0.21 0.56)	0.24	0.09	0.00	0.24	(0.06 0.42)
=1 if ethnicity is non-white	-0.10	0.11	0.00	-0.10	(-0.31 0.11)	0.14	0.10	0.00	0.14	(-0.06 0.34)	0.07	0.11	0.00	0.07	(-0.14 0.28)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.15	0.12	0.00	-0.15	(-0.39 0.09)	-0.01	0.12	0.00	-0.01	(-0.24 0.22)	0.05	0.12	0.00	0.05	(-0.19 0.30)
<i>Size of household</i>															
log of hh size incl. cm	-0.15	0.11	0.00	-0.15	(-0.38 0.07)	-0.20	0.11	0.00	-0.20	(-0.42 0.01)	-0.25	0.11	0.00	-0.25	(-0.46 -0.03)
<i>Number of older siblings</i>															
=1 if no older siblings	-0.04	0.07	0.00	-0.04	(-0.18 0.11)	0.13	0.07	0.00	0.13	(-0.01 0.27)	-0.03	0.07	0.00	-0.03	(-0.18 0.11)
=1 if two or more older siblings	-0.06	0.09	0.00	-0.06	(-0.23 0.12)	-0.13	0.08	0.00	-0.13	(-0.29 0.04)	-0.07	0.09	0.00	-0.07	(-0.24 0.11)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	0.16	0.16	0.00	0.16	(-0.15 0.48)	-0.06	0.16	0.00	-0.06	(-0.36 0.25)	0.03	0.16	0.00	0.03	(-0.29 0.35)
<i>Country where interview took place</i>															
=1 if wales	0.42	0.31	0.00	0.43	(-0.19 1.03)	-0.37	0.29	0.00	-0.38	(-0.94 0.20)	-0.23	0.30	0.00	-0.23	(-0.82 0.35)
=1 if nireland	0.35	0.50	0.01	0.36	(-0.63 1.33)	-0.07	0.50	0.01	-0.07	(-1.05 0.91)	0.28	0.50	0.01	0.28	(-0.70 1.27)
=1 if scotland	0.20	0.32	0.00	0.20	(-0.42 0.83)	0.23	0.30	0.00	0.23	(-0.37 0.83)	0.30	0.32	0.00	0.31	(-0.32 0.93)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	0.06	0.06	0.00	0.06	(-0.07 0.18)	0.02	0.06	0.00	0.02	(-0.09 0.14)	-0.01	0.06	0.00	-0.01	(-0.12 0.11)
<i>Childcare</i>															
=1 if formal childcare	-0.11	0.12	0.00	-0.11	(-0.34 0.11)	-0.13	0.11	0.00	-0.13	(-0.34 0.09)	-0.07	0.11	0.00	-0.07	(-0.29 0.16)
=1 if informal/ other childcare	-0.05	0.09	0.00	-0.05	(-0.23 0.12)	-0.14	0.09	0.00	-0.14	(-0.31 0.03)	-0.09	0.09	0.00	-0.09	(-0.27 0.08)
=1 if grandparent care	-0.03	0.07	0.00	-0.03	(-0.17 0.10)	0.08	0.07	0.00	0.08	(-0.05 0.21)	-0.03	0.07	0.00	-0.03	(-0.16 0.11)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	0.03	0.07	0.00	0.04	(-0.10 0.17)	0.11	0.07	0.00	0.11	(-0.01 0.25)	0.12	0.07	0.00	0.12	(-0.02 0.25)
=1 if working full-time	0.13	0.13	0.00	0.14	(-0.12 0.40)	0.16	0.13	0.00	0.16	(-0.09 0.41)	0.21	0.13	0.00	0.21	(-0.05 0.46)
<i>How long mother breastfed child</i>															

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Table A.3.78 – continued from previous page

	BAS PC					BAS WR					NFER Math							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
=1 if at least 6 months	-0.01	0.09	0.00	-0.02	(-0.19	0.16)	-0.03	0.09	0.00	-0.03	(-0.20	0.14)	-0.01	0.09	0.00	-0.01	(-0.19	0.16)
<i>If child is naughty...</i>																		
=1 if mother smacks child	-0.20	0.27	0.00	-0.19	(-0.72	0.33)	0.50	0.26	0.00	0.50	(-0.01	1.00)	0.04	0.27	0.00	0.05	(-0.49	0.56)
=1 if mother tells child off	-0.06	0.06	0.00	-0.06	(-0.18	0.05)	-0.08	0.06	0.00	-0.08	(-0.19	0.03)	-0.01	0.06	0.00	-0.01	(-0.12	0.11)
<i>Bedtime on term-time weekdays</i>																		
=1 if regular bedtime	0.10	0.09	0.00	0.10	(-0.08	0.28)	0.00	0.09	0.00	0.00	(-0.17	0.17)	0.11	0.09	0.00	0.11	(-0.07	0.28)
<i>Daily TV/ video consumption</i>																		
=1 if more than 3 hours tv/ videos	0.01	0.07	0.00	0.01	(-0.13	0.16)	-0.00	0.07	0.00	-0.00	(-0.14	0.14)	0.07	0.07	0.00	0.07	(-0.07	0.22)
<i>How often mother reads to the child</i>																		
=1 if at least several times a week	-0.14	0.09	0.00	-0.14	(-0.31	0.04)	-0.16	0.09	0.00	-0.16	(-0.33	0.01)	-0.17	0.09	0.00	-0.17	(-0.35	0.00)
Health and Health Related Behaviour																		
<i>Maternal physical health</i>																		
=1 if longstanding illness	-0.00	0.06	0.00	-0.00	(-0.13	0.12)	-0.02	0.06	0.00	-0.02	(-0.14	0.10)	0.02	0.06	0.00	0.02	(-0.11	0.14)
<i>Maternal mental health</i>																		
=1 if high distress	-0.08	0.12	0.00	-0.08	(-0.32	0.15)	0.15	0.12	0.00	0.15	(-0.08	0.38)	-0.01	0.12	0.00	-0.01	(-0.25	0.22)
<i>Does mother currently smoke</i>																		
=1 if currently smokes	-0.12	0.06	0.00	-0.12	(-0.24	-0.00)	-0.15	0.06	0.00	-0.15	(-0.26	-0.03)	-0.05	0.06	0.00	-0.05	(-0.17	0.07)
<i>How often mother drinks alcohol</i>																		
=1 if at least 3 times a week	-0.01	0.08	0.00	-0.00	(-0.16	0.15)	0.05	0.07	0.00	0.05	(-0.09	0.19)	0.03	0.08	0.00	0.03	(-0.12	0.19)
Other																		
<i>Housing tenure</i>																		
=1 if council rented	-0.09	0.09	0.00	-0.09	(-0.27	0.10)	-0.03	0.09	0.00	-0.03	(-0.20	0.14)	-0.12	0.09	0.00	-0.12	(-0.30	0.06)
=1 if rented (housing association or private)/ other	-0.04	0.08	0.00	-0.04	(-0.20	0.11)	-0.08	0.07	0.00	-0.08	(-0.22	0.07)	-0.01	0.08	0.00	-0.01	(-0.16	0.14)
<i>Child's fruit consumption</i>																		
=1 if cm has at least one portion of fruit per day	0.01	0.11	0.00	0.01	(-0.20	0.23)	0.01	0.11	0.00	0.01	(-0.20	0.21)	0.19	0.11	0.00	0.19	(-0.02	0.41)
<i>Maternal grandfathers' SES when respondent was aged 14</i>																		
=1 if was not working	-0.07	0.10	0.00	-0.08	(-0.28	0.13)	-0.05	0.10	0.00	-0.05	(-0.24	0.14)	-0.00	0.10	0.00	-0.00	(-0.20	0.20)
=1 if managerial/ professional occupation	0.07	0.09	0.00	0.07	(-0.10	0.25)	0.14	0.09	0.00	0.14	(-0.03	0.31)	-0.07	0.09	0.00	-0.07	(-0.25	0.10)
=1 if technical, semi-routine or routine occupation	-0.07	0.07	0.00	-0.07	(-0.20	0.07)	0.03	0.07	0.00	0.03	(-0.10	0.16)	-0.10	0.07	0.00	-0.10	(-0.23	0.04)
=1 if can't remember or father died	-0.03	0.11	0.00	-0.03	(-0.25	0.20)	-0.10	0.11	0.00	-0.10	(-0.31	0.10)	0.01	0.11	0.00	0.01	(-0.20	0.24)
constant	-1.97	0.71	0.01	-1.98	(-3.33	-0.59)	-1.62	0.69	0.01	-1.62	(-2.99	-0.26)	-1.45	0.71	0.01	-1.45	(-2.83	-0.06)
σ_ϵ	0.95	0.03	0.00	0.96	(0.88	1.00)	0.91	0.03	0.00	0.92	(0.85	0.96)	0.95	0.03	0.00	0.95	(0.86	1.00)
σ_ζ	0.17	0.11	0.01	0.16	(0.01	0.43)	0.14	0.10	0.01	0.13	(0.01	0.36)	0.18	0.12	0.01	0.16	(0.01	0.45)
$\rho_{\zeta\xi}$	0.30	0.49	0.02	0.39	(-0.79	0.96)	0.17	0.51	0.02	0.22	(-0.84	0.96)	0.32	0.50	0.02	0.43	(-0.82	0.96)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.79: Bayesian Estimates: BAS, NFER and SDQ HA (Eq. 1, TP, Age 7)

	BAS PC					BAS WR					NFER Math				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
hyperactivity/inattention	-0.06	0.01	0.00	-0.06	(-0.09 -0.04)	-0.08	0.01	0.00	-0.08	(-0.10 -0.06)	-0.08	0.01	0.00	-0.08	(-0.10 -0.06)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.20	0.04	0.00	0.20	(0.13 0.27)	0.29	0.03	0.00	0.29	(0.22 0.36)	0.29	0.04	0.00	0.29	(0.21 0.36)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.07	0.03	0.00	-0.07	(-0.14 -0.01)	-0.12	0.03	0.00	-0.12	(-0.18 -0.06)	-0.08	0.03	0.00	-0.08	(-0.15 -0.02)
=1 if NVQ level 3	-0.04	0.04	0.00	-0.04	(-0.12 0.03)	-0.05	0.03	0.00	-0.05	(-0.12 0.02)	-0.05	0.04	0.00	-0.05	(-0.12 0.03)
=1 if overseas qual. only	-0.26	0.12	0.00	-0.26	(-0.50 -0.02)	-0.25	0.11	0.00	-0.25	(-0.47 -0.04)	-0.02	0.12	0.00	-0.02	(-0.25 0.20)
=1 if none of these	-0.21	0.07	0.00	-0.21	(-0.36 -0.07)	-0.17	0.07	0.00	-0.18	(-0.31 -0.04)	-0.23	0.07	0.00	-0.23	(-0.37 -0.10)
<i>Mother's age at birth</i>															
=1 if less than 25 years	0.00	0.05	0.00	0.00	(-0.10 0.10)	-0.11	0.05	0.00	-0.11	(-0.21 -0.02)	0.06	0.05	0.00	0.06	(-0.04 0.17)
=1 if 25 to 29 years	0.02	0.04	0.00	0.02	(-0.06 0.10)	-0.01	0.04	0.00	-0.01	(-0.09 0.06)	0.05	0.04	0.00	0.05	(-0.03 0.13)
=1 if 30 to 34 years	0.02	0.04	0.00	0.02	(-0.06 0.09)	0.01	0.04	0.00	0.01	(-0.06 0.08)	0.04	0.04	0.00	0.04	(-0.03 0.11)
<i>Child demography</i>															
=1 if female	0.00	0.03	0.00	0.00	(-0.05 0.06)	0.08	0.03	0.00	0.08	(0.03 0.13)	-0.10	0.03	0.00	-0.10	(-0.15 -0.05)
age (years)	0.38	0.05	0.00	0.38	(0.28 0.47)	0.45	0.05	0.00	0.45	(0.36 0.54)	0.48	0.05	0.00	0.48	(0.38 0.58)
=1 if ethnicity is non-white	-0.12	0.06	0.00	-0.12	(-0.24 0.00)	0.24	0.06	0.00	0.24	(0.12 0.35)	-0.00	0.06	0.00	-0.00	(-0.12 0.11)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.22	0.06	0.00	-0.22	(-0.34 -0.10)	-0.08	0.06	0.00	-0.08	(-0.20 0.03)	-0.20	0.06	0.00	-0.20	(-0.31 -0.08)
<i>Size of household</i>															
log of hh size incl. cm	-0.15	0.08	0.00	-0.15	(-0.31 0.01)	-0.21	0.08	0.00	-0.21	(-0.36 -0.06)	-0.16	0.08	0.00	-0.16	(-0.32 -0.01)
<i>Number of older siblings</i>															
=1 if no older siblings	0.04	0.03	0.00	0.04	(-0.01 0.10)	0.11	0.03	0.00	0.11	(0.05 0.17)	0.05	0.03	0.00	0.05	(-0.01 0.11)
=1 if two or more older siblings	-0.05	0.04	0.00	-0.05	(-0.13 0.03)	-0.17	0.04	0.00	-0.17	(-0.25 -0.09)	-0.05	0.04	0.00	-0.05	(-0.13 0.04)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	0.12	0.11	0.00	0.12	(-0.09 0.32)	0.05	0.10	0.00	0.05	(-0.15 0.24)	0.08	0.10	0.00	0.08	(-0.13 0.28)
<i>Country where interview took place</i>															
=1 if wales	0.22	0.13	0.00	0.22	(-0.04 0.47)	-0.03	0.12	0.00	-0.03	(-0.27 0.20)	0.20	0.13	0.00	0.20	(-0.05 0.45)
=1 if nireland	0.55	0.28	0.00	0.55	(0.01 1.09)	0.65	0.27	0.00	0.65	(0.12 1.17)	0.56	0.28	0.00	0.56	(0.01 1.10)
=1 if scotland	0.23	0.16	0.00	0.23	(-0.08 0.53)	-0.16	0.15	0.00	-0.16	(-0.44 0.13)	0.21	0.15	0.00	0.21	(-0.08 0.51)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	-0.02	0.03	0.00	-0.02	(-0.08 0.03)	0.01	0.03	0.00	0.01	(-0.04 0.06)	0.02	0.03	0.00	0.02	(-0.03 0.07)
<i>Childcare</i>															
=1 if formal childcare	0.05	0.06	0.00	0.06	(-0.06 0.17)	-0.05	0.05	0.00	-0.05	(-0.16 0.06)	0.03	0.06	0.00	0.03	(-0.08 0.15)
=1 if informal/ other childcare	-0.03	0.05	0.00	-0.03	(-0.12 0.06)	-0.05	0.04	0.00	-0.05	(-0.14 0.03)	-0.04	0.05	0.00	-0.04	(-0.13 0.05)
=1 if grandparent care	-0.05	0.03	0.00	-0.05	(-0.11 0.01)	-0.02	0.03	0.00	-0.02	(-0.08 0.04)	0.01	0.03	0.00	0.01	(-0.05 0.07)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	-0.05	0.03	0.00	-0.05	(-0.11 0.01)	0.03	0.03	0.00	0.03	(-0.03 0.08)	-0.03	0.03	0.00	-0.03	(-0.09 0.03)
=1 if working full-time	-0.02	0.06	0.00	-0.02	(-0.14 0.10)	-0.09	0.06	0.00	-0.09	(-0.20 0.03)	-0.07	0.06	0.00	-0.07	(-0.19 0.04)
<i>How long mother breastfed child</i>															

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Table A.3.79 – continued from previous page

	BAS PC					BAS WR					NFER Math				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.09	0.03	0.00	0.09	(0.02 0.16)	0.05	0.03	0.00	0.05	(-0.01 0.12)	0.07	0.03	0.00	0.07	(0.00 0.13)
<i>If child is naughty...</i>															
=1 if mother smacks child	0.08	0.14	0.00	0.08	(-0.20 0.35)	0.09	0.13	0.00	0.09	(-0.17 0.36)	-0.08	0.14	0.00	-0.08	(-0.36 0.20)
=1 if mother tells child off	0.04	0.03	0.00	0.04	(-0.02 0.09)	0.06	0.03	0.00	0.06	(0.01 0.11)	0.06	0.03	0.00	0.06	(0.00 0.11)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.02	0.05	0.00	0.02	(-0.08 0.11)	0.07	0.05	0.00	0.07	(-0.03 0.16)	-0.06	0.05	0.00	-0.06	(-0.16 0.03)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.03	0.04	0.00	-0.03	(-0.11 0.04)	-0.06	0.04	0.00	-0.06	(-0.14 0.01)	-0.04	0.04	0.00	-0.04	(-0.11 0.03)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.13	0.05	0.00	-0.13	(-0.22 -0.04)	-0.25	0.04	0.00	-0.25	(-0.33 -0.16)	-0.21	0.05	0.00	-0.21	(-0.30 -0.12)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	-0.01	0.03	0.00	-0.01	(-0.07 0.05)	0.01	0.03	0.00	0.01	(-0.04 0.07)	-0.07	0.03	0.00	-0.07	(-0.13 -0.01)
<i>Maternal mental health</i>															
=1 if high distress	-0.08	0.09	0.00	-0.08	(-0.26 0.10)	-0.00	0.09	0.00	-0.00	(-0.17 0.17)	0.05	0.09	0.00	0.05	(-0.13 0.22)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.00	0.03	0.00	-0.00	(-0.07 0.07)	-0.10	0.03	0.00	-0.10	(-0.17 -0.04)	-0.10	0.03	0.00	-0.10	(-0.16 -0.03)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	0.04	0.03	0.00	0.05	(-0.02 0.11)	0.03	0.03	0.00	0.03	(-0.03 0.09)	0.03	0.03	0.00	0.03	(-0.03 0.09)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.00	0.06	0.00	-0.00	(-0.12 0.11)	-0.12	0.05	0.00	-0.12	(-0.23 -0.02)	-0.07	0.06	0.00	-0.07	(-0.18 0.04)
=1 if rented (housing association or private)/ other	0.01	0.05	0.00	0.01	(-0.08 0.11)	-0.04	0.04	0.00	-0.04	(-0.13 0.05)	0.04	0.05	0.00	0.04	(-0.05 0.13)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.08	0.07	0.00	0.08	(-0.05 0.21)	0.08	0.06	0.00	0.08	(-0.04 0.20)	0.14	0.06	0.00	0.14	(0.01 0.26)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.08	0.06	0.00	-0.08	(-0.19 0.04)	-0.02	0.06	0.00	-0.02	(-0.13 0.09)	-0.01	0.06	0.00	-0.01	(-0.13 0.10)
=1 if managerial/ professional occupation	0.03	0.04	0.00	0.03	(-0.04 0.10)	0.12	0.03	0.00	0.12	(0.05 0.18)	0.01	0.04	0.00	0.01	(-0.06 0.08)
=1 if technical, semi-routine or routine occupation	-0.04	0.03	0.00	-0.04	(-0.10 0.02)	0.04	0.03	0.00	0.04	(-0.02 0.09)	-0.02	0.03	0.00	-0.02	(-0.08 0.04)
=1 if can't remember or father died	-0.05	0.06	0.00	-0.05	(-0.17 0.06)	0.03	0.06	0.00	0.03	(-0.08 0.13)	0.11	0.06	0.00	0.11	(-0.01 0.22)
constant	-3.57	0.45	0.00	-3.57	(-4.44 -2.71)	-4.47	0.42	0.00	-4.47	(-5.30 -3.64)	-4.65	0.44	0.00	-4.65	(-5.54 -3.80)
σ_ϵ	0.94	0.02	0.00	0.95	(0.89 0.97)	0.89	0.02	0.00	0.90	(0.84 0.91)	0.93	0.02	0.00	0.94	(0.88 0.96)
σ_ζ	0.13	0.09	0.01	0.11	(0.02 0.36)	0.10	0.09	0.01	0.08	(0.01 0.31)	0.12	0.09	0.01	0.10	(0.01 0.36)
$\rho_{\zeta\xi}$	-0.00	0.43	0.03	-0.01	(-0.83 0.85)	0.12	0.48	0.04	0.12	(-0.84 0.95)	0.29	0.42	0.03	0.30	(-0.59 0.99)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.80: Bayesian Estimates: BAS, NFER and SDQ HA (Eq. 2, LP, Age 7)

	BAS PC					BAS WR					NFER Math					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls																
<i>Income</i>																
log of permanent family income (weekly, imp.)	-0.00	0.16	0.00	-0.00	(-0.31 0.31)	-0.00	0.16	0.00	-0.00	(-0.32 0.32)	-0.00	0.16	0.00	-0.00	(-0.32 0.31)	
<i>Maternal education</i>																
=1 if NVQ level 1 or 2	0.35	0.17	0.00	0.35	(0.02 0.67)	0.35	0.16	0.00	0.34	(0.02 0.67)	0.35	0.17	0.00	0.34	(0.02 0.68)	
=1 if NVQ level 3	-0.09	0.19	0.00	-0.09	(-0.46 0.29)	-0.09	0.19	0.00	-0.09	(-0.47 0.29)	-0.09	0.19	0.00	-0.09	(-0.46 0.29)	
=1 if overseas qual. only	0.51	0.39	0.00	0.51	(-0.27 1.28)	0.50	0.40	0.00	0.50	(-0.28 1.29)	0.50	0.39	0.00	0.50	(-0.27 1.26)	
=1 if none of these	0.49	0.24	0.00	0.49	(0.02 0.96)	0.49	0.24	0.00	0.49	(0.02 0.96)	0.49	0.24	0.00	0.49	(0.01 0.97)	
<i>Mother's age at birth</i>																
=1 if less than 25 years	0.62	0.24	0.00	0.62	(0.15 1.10)	0.62	0.24	0.00	0.62	(0.16 1.10)	0.62	0.24	0.00	0.62	(0.15 1.09)	
=1 if 25 to 29 years	0.43	0.22	0.00	0.43	(0.00 0.86)	0.43	0.22	0.00	0.43	(0.01 0.86)	0.44	0.22	0.00	0.44	(0.00 0.86)	
=1 if 30 to 34 years	0.44	0.22	0.00	0.44	(0.01 0.86)	0.44	0.22	0.00	0.43	(0.01 0.86)	0.43	0.22	0.00	0.43	(0.01 0.86)	
<i>Child demography</i>																
=1 if female	-0.52	0.12	0.00	-0.52	(-0.76 -0.27)	-0.51	0.13	0.00	-0.51	(-0.76 -0.27)	-0.51	0.12	0.00	-0.51	(-0.76 -0.27)	
age (years)	0.21	0.19	0.00	0.21	(-0.17 0.58)	0.21	0.19	0.00	0.21	(-0.17 0.59)	0.21	0.19	0.00	0.21	(-0.18 0.59)	
=1 if ethnicity is non-white	0.26	0.23	0.00	0.26	(-0.20 0.72)	0.27	0.23	0.00	0.27	(-0.19 0.73)	0.27	0.24	0.00	0.27	(-0.20 0.73)	
<i>Child's health endowment</i>																
=1 if birth weight < 2500g	0.46	0.30	0.00	0.46	(-0.14 1.04)	0.46	0.30	0.00	0.46	(-0.12 1.06)	0.46	0.30	0.00	0.45	(-0.14 1.05)	
<i>Size of household</i>																
log of hh size incl. cm	-0.19	0.23	0.00	-0.19	(-0.64 0.25)	-0.19	0.23	0.00	-0.19	(-0.63 0.26)	-0.19	0.23	0.00	-0.18	(-0.64 0.26)	
<i>Number of older siblings</i>																
=1 if no older siblings	0.21	0.16	0.00	0.21	(-0.10 0.52)	0.21	0.16	0.00	0.21	(-0.10 0.52)	0.21	0.16	0.00	0.21	(-0.10 0.52)	
=1 if two or more older siblings	0.40	0.19	0.00	0.40	(0.02 0.78)	0.40	0.19	0.00	0.40	(0.03 0.77)	0.40	0.19	0.00	0.40	(0.02 0.79)	
<i>Respondent's relationship to child</i>																
=1 if natural mother of child	0.21	0.39	0.00	0.21	(-0.55 0.99)	0.21	0.40	0.00	0.22	(-0.57 0.99)	0.20	0.40	0.00	0.20	(-0.58 0.96)	
<i>Country where interview took place</i>																
=1 if wales	-0.12	0.47	0.00	-0.12	(-1.06 0.80)	-0.11	0.47	0.00	-0.11	(-1.05 0.81)	-0.12	0.47	0.00	-0.12	(-1.04 0.79)	
=1 if nireland	0.27	0.57	0.01	0.27	(-0.87 1.39)	0.28	0.57	0.01	0.28	(-0.83 1.39)	0.27	0.58	0.01	0.28	(-0.88 1.40)	
=1 if scotland	0.53	0.50	0.00	0.52	(-0.45 1.51)	0.52	0.51	0.01	0.52	(-0.47 1.53)	0.51	0.50	0.01	0.52	(-0.47 1.50)	
Time and Care																
<i>Time mother spends with child</i>																
=1 if at least just enough	-0.20	0.14	0.00	-0.20	(-0.48 0.07)	-0.20	0.14	0.00	-0.20	(-0.47 0.07)	-0.20	0.14	0.00	-0.20	(-0.47 0.08)	
<i>Childcare</i>																
=1 if formal childcare	0.18	0.27	0.00	0.18	(-0.33 0.70)	0.18	0.27	0.00	0.18	(-0.35 0.70)	0.19	0.27	0.00	0.19	(-0.33 0.70)	
=1 if informal/ other childcare	0.01	0.22	0.00	0.01	(-0.43 0.43)	-0.00	0.22	0.00	0.00	(-0.44 0.43)	0.00	0.22	0.00	0.00	(-0.44 0.44)	
=1 if grandparent care	-0.04	0.15	0.00	-0.04	(-0.34 0.26)	-0.03	0.16	0.00	-0.04	(-0.33 0.28)	-0.04	0.15	0.00	-0.04	(-0.34 0.27)	
<i>Maternal employment (t - 1)</i>																
=1 if working part-time	0.25	0.15	0.00	0.25	(-0.03 0.55)	0.25	0.15	0.00	0.25	(-0.04 0.54)	0.25	0.15	0.00	0.25	(-0.04 0.54)	
=1 if working full-time	0.16	0.30	0.00	0.16	(-0.44 0.75)	0.15	0.31	0.00	0.16	(-0.44 0.76)	0.16	0.31	0.00	0.16	(-0.45 0.74)	
<i>How long mother breastfed child</i>																
=1 if at least 6 months	-0.21	0.20	0.00	-0.21	(-0.60 0.18)	-0.20	0.20	0.00	-0.20	(-0.60 0.18)	-0.20	0.20	0.00	-0.21	(-0.60 0.19)	
<i>If child is naughty...</i>																

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Table A.3.80 – continued from previous page

	BAS PC					BAS WR					NFER Math				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	1.28	0.41	0.00	1.29	(0.48 2.09)	1.27	0.41	0.00	1.27	(0.46 2.08)	1.30	0.41	0.00	1.30	(0.49 2.11)
=1 if mother tells child off	0.78	0.14	0.00	0.77	(0.51 1.04)	0.77	0.13	0.00	0.78	(0.51 1.04)	0.77	0.14	0.00	0.77	(0.50 1.04)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	-0.18	0.19	0.00	-0.18	(-0.55 0.20)	-0.18	0.19	0.00	-0.18	(-0.55 0.20)	-0.17	0.19	0.00	-0.17	(-0.55 0.20)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	0.27	0.16	0.00	0.27	(-0.04 0.59)	0.27	0.16	0.00	0.27	(-0.05 0.59)	0.27	0.16	0.00	0.27	(-0.04 0.59)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.32	0.26	0.00	-0.32	(-0.84 0.19)	-0.32	0.27	0.00	-0.32	(-0.84 0.21)	-0.32	0.27	0.00	-0.32	(-0.83 0.20)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.03	0.15	0.00	0.03	(-0.26 0.32)	0.03	0.15	0.00	0.03	(-0.26 0.32)	0.03	0.15	0.00	0.03	(-0.26 0.32)
<i>Maternal mental health</i>															
=1 if high distress	0.21	0.28	0.00	0.20	(-0.35 0.77)	0.20	0.29	0.00	0.20	(-0.37 0.76)	0.21	0.28	0.00	0.21	(-0.35 0.76)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.07	0.15	0.00	0.07	(-0.22 0.36)	0.07	0.15	0.00	0.07	(-0.23 0.36)	0.07	0.15	0.00	0.07	(-0.22 0.37)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	0.03	0.18	0.00	0.03	(-0.33 0.39)	0.03	0.19	0.00	0.03	(-0.34 0.39)	0.03	0.19	0.00	0.02	(-0.34 0.40)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.05	0.19	0.00	0.05	(-0.32 0.43)	0.06	0.19	0.00	0.06	(-0.33 0.43)	0.05	0.19	0.00	0.05	(-0.33 0.43)
=1 if rented (housing association or private)/ other	0.17	0.17	0.00	0.17	(-0.16 0.50)	0.17	0.17	0.00	0.17	(-0.16 0.51)	0.17	0.17	0.00	0.17	(-0.17 0.50)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	-0.12	0.25	0.00	-0.13	(-0.61 0.37)	-0.13	0.25	0.00	-0.12	(-0.62 0.35)	-0.12	0.25	0.00	-0.12	(-0.61 0.36)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.22	0.22	0.00	0.22	(-0.22 0.66)	0.23	0.22	0.00	0.23	(-0.20 0.67)	0.23	0.22	0.00	0.23	(-0.20 0.65)
=1 if managerial/ professional occupation	-0.20	0.20	0.00	-0.20	(-0.58 0.18)	-0.20	0.19	0.00	-0.20	(-0.59 0.18)	-0.20	0.19	0.00	-0.20	(-0.58 0.18)
=1 if technical, semi-routine or routine occupation	0.02	0.15	0.00	0.02	(-0.27 0.32)	0.03	0.15	0.00	0.02	(-0.26 0.32)	0.02	0.15	0.00	0.03	(-0.27 0.33)
=1 if can't remember or father died	0.28	0.25	0.00	0.28	(-0.21 0.75)	0.28	0.24	0.00	0.28	(-0.20 0.76)	0.27	0.24	0.00	0.28	(-0.21 0.76)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	0.12	0.21	0.00	0.12	(-0.30 0.53)	0.11	0.21	0.00	0.11	(-0.29 0.51)	0.13	0.21	0.00	0.13	(-0.27 0.54)
Hyperactivity Risk Factors															
<i>Gestational age</i>															
=1 if gestational age < 37 weeks	0.26	0.28	0.00	0.26	(-0.28 0.82)	0.26	0.28	0.00	0.26	(-0.28 0.81)	0.27	0.28	0.00	0.27	(-0.28 0.81)
<i>Maternal mental health (age 1)</i>															
=1 if increased risk of depression/ anxiety	0.29	0.17	0.00	0.29	(-0.04 0.63)	0.30	0.17	0.00	0.31	(-0.02 0.64)	0.31	0.17	0.00	0.31	(-0.02 0.64)
<i>Alcohol consumption during pregnancy</i>															
=1 if 1-2 times per month	0.18	0.22	0.00	0.18	(-0.26 0.62)	0.19	0.23	0.00	0.19	(-0.26 0.63)	0.19	0.23	0.00	0.19	(-0.26 0.63)
=1 if at least once a week	-0.15	0.23	0.00	-0.16	(-0.59 0.29)	-0.16	0.23	0.00	-0.16	(-0.61 0.29)	-0.17	0.23	0.00	-0.17	(-0.61 0.28)
<i>Smoking during pregnancy</i>															
=1 if mother smoked during pregnancy	0.20	0.16	0.00	0.19	(-0.12 0.50)	0.19	0.16	0.00	0.19	(-0.11 0.50)	0.19	0.16	0.00	0.19	(-0.12 0.50)
<i>Smoking in the same room as child</i>															
=1 if anyone smokes in same room as child (age 1)	-0.02	0.18	0.00	-0.02	(-0.37 0.33)	-0.02	0.18	0.00	-0.02	(-0.38 0.34)	-0.01	0.18	0.00	-0.01	(-0.37 0.34)
=1 if anyone smokes in same room as child (age 3)	0.25	0.16	0.00	0.25	(-0.07 0.57)	0.26	0.16	0.00	0.26	(-0.04 0.58)	0.25	0.16	0.00	0.25	(-0.07 0.56)

continued on next page

Table A.3.80 – continued from previous page

	BAS PC					BAS WR					NFER Math				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
<i>Maternal attachment</i>															
Condon scale score (age 1)	0.03	0.07	0.00	0.03	(-0.10 0.17)	0.03	0.07	0.00	0.03	(-0.10 0.17)	0.04	0.07	0.00	0.04	(-0.09 0.17)
<i>Child-parent relationship</i>															
Condon scale score (age 3)	-0.54	0.07	0.00	-0.54	(-0.68 -0.40)	-0.54	0.07	0.00	-0.54	(-0.68 -0.40)	-0.55	0.07	0.00	-0.55	(-0.69 -0.40)
<i>Maltreatment of children</i>															
Straus's conflict tactics scale (age 3)	0.11	0.07	0.00	0.11	(-0.04 0.25)	0.11	0.07	0.00	0.11	(-0.03 0.25)	0.10	0.07	0.00	0.10	(-0.04 0.25)
constant	1.44	0.87	0.01	1.44	(-0.27 3.20)	1.43	0.87	0.01	1.43	(-0.27 3.15)	1.43	0.87	0.01	1.43	(-0.29 3.14)
σ_{τ}	1.92	0.05	0.00	1.92	(1.82 2.01)	1.91	0.05	0.00	1.91	(1.82 2.01)	1.91	0.05	0.00	1.91	(1.82 2.01)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.81: Bayesian Estimates: BAS, NFER and SDQ HA (Eq. 2, TP, Age 7)

	BAS PC					BAS WR					NFER Math							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Standard Background Controls																		
<i>Income</i>																		
log of permanent family income (weekly, imp.)	-0.14	0.07	0.00	-0.14	(-0.28	0.01)	-0.14	0.07	0.00	-0.14	(-0.28	0.00)	-0.14	0.08	0.00	-0.14	(-0.29	0.01)
<i>Maternal education</i>																		
=1 if NVQ level 1 or 2	0.28	0.07	0.00	0.28	(0.15	0.42)	0.29	0.07	0.00	0.29	(0.15	0.42)	0.28	0.07	0.00	0.28	(0.15	0.42)
=1 if NVQ level 3	0.28	0.08	0.00	0.28	(0.13	0.43)	0.28	0.08	0.00	0.28	(0.13	0.43)	0.28	0.08	0.00	0.28	(0.13	0.44)
=1 if overseas qual. only	0.36	0.24	0.00	0.36	(-0.10	0.82)	0.37	0.24	0.00	0.37	(-0.10	0.83)	0.36	0.24	0.00	0.36	(-0.11	0.82)
=1 if none of these	0.36	0.14	0.00	0.36	(0.09	0.64)	0.36	0.14	0.00	0.36	(0.08	0.64)	0.36	0.14	0.00	0.36	(0.07	0.64)
<i>Mother's age at birth</i>																		
=1 if less than 25 years	0.24	0.11	0.00	0.24	(0.03	0.45)	0.24	0.11	0.00	0.24	(0.03	0.45)	0.24	0.11	0.00	0.24	(0.03	0.45)
=1 if 25 to 29 years	0.00	0.08	0.00	0.00	(-0.16	0.17)	0.00	0.08	0.00	0.00	(-0.17	0.17)	0.00	0.09	0.00	0.00	(-0.17	0.17)
=1 if 30 to 34 years	0.01	0.08	0.00	0.01	(-0.14	0.16)	0.01	0.08	0.00	0.01	(-0.14	0.17)	0.01	0.08	0.00	0.01	(-0.14	0.17)
<i>Child demography</i>																		
=1 if female	-0.54	0.05	0.00	-0.54	(-0.65	-0.44)	-0.54	0.05	0.00	-0.54	(-0.65	-0.44)	-0.54	0.05	0.00	-0.54	(-0.65	-0.44)
age (years)	-0.11	0.10	0.00	-0.11	(-0.31	0.09)	-0.11	0.10	0.00	-0.11	(-0.31	0.09)	-0.11	0.10	0.00	-0.11	(-0.31	0.09)
=1 if ethnicity is non-white	0.10	0.13	0.00	0.10	(-0.15	0.36)	0.10	0.13	0.00	0.10	(-0.16	0.35)	0.10	0.13	0.00	0.10	(-0.16	0.35)
<i>Child's health endowment</i>																		
=1 if birth weight < 2500g	0.47	0.15	0.00	0.47	(0.18	0.76)	0.47	0.15	0.00	0.47	(0.17	0.77)	0.47	0.15	0.00	0.47	(0.18	0.77)
<i>Size of household</i>																		
log of hh size incl. cm	-0.35	0.16	0.00	-0.35	(-0.66	-0.05)	-0.35	0.16	0.00	-0.35	(-0.66	-0.05)	-0.36	0.16	0.00	-0.36	(-0.66	-0.05)
<i>Number of older siblings</i>																		
=1 if no older siblings	-0.06	0.06	0.00	-0.06	(-0.18	0.07)	-0.06	0.06	0.00	-0.06	(-0.18	0.07)	-0.06	0.07	0.00	-0.06	(-0.19	0.07)
=1 if two or more older siblings	0.05	0.09	0.00	0.05	(-0.12	0.22)	0.05	0.09	0.00	0.05	(-0.13	0.22)	0.05	0.09	0.00	0.05	(-0.12	0.22)
<i>Respondent's relationship to child</i>																		
=1 if natural mother of child	0.41	0.23	0.00	0.42	(-0.05	0.87)	0.41	0.24	0.00	0.40	(-0.05	0.87)	0.41	0.23	0.00	0.42	(-0.05	0.88)
<i>Country where interview took place</i>																		
=1 if wales	-0.08	0.26	0.00	-0.09	(-0.60	0.44)	-0.08	0.26	0.00	-0.08	(-0.60	0.43)	-0.08	0.26	0.00	-0.08	(-0.59	0.42)
=1 if nireland	-0.17	0.44	0.00	-0.17	(-1.04	0.70)	-0.18	0.44	0.00	-0.18	(-1.05	0.69)	-0.18	0.45	0.00	-0.17	(-1.06	0.70)
=1 if scotland	-0.20	0.30	0.00	-0.20	(-0.79	0.39)	-0.20	0.30	0.00	-0.20	(-0.79	0.39)	-0.20	0.31	0.00	-0.20	(-0.81	0.39)
Time and Care																		
<i>Time mother spends with child</i>																		
=1 if at least just enough	-0.22	0.06	0.00	-0.22	(-0.33	-0.11)	-0.22	0.06	0.00	-0.22	(-0.33	-0.10)	-0.22	0.06	0.00	-0.21	(-0.33	-0.10)
<i>Childcare</i>																		
=1 if formal childcare	-0.14	0.12	0.00	-0.14	(-0.38	0.10)	-0.14	0.12	0.00	-0.14	(-0.38	0.09)	-0.14	0.12	0.00	-0.14	(-0.37	0.10)
=1 if informal/ other childcare	0.09	0.11	0.00	0.09	(-0.12	0.29)	0.09	0.11	0.00	0.09	(-0.12	0.30)	0.09	0.11	0.00	0.09	(-0.11	0.30)
=1 if grandparent care	-0.01	0.06	0.00	-0.01	(-0.14	0.12)	-0.01	0.07	0.00	-0.01	(-0.14	0.12)	-0.01	0.06	0.00	-0.01	(-0.13	0.12)
<i>Maternal employment (t - 1)</i>																		
=1 if working part-time	0.05	0.06	0.00	0.05	(-0.07	0.17)	0.05	0.06	0.00	0.05	(-0.07	0.17)	0.05	0.06	0.00	0.05	(-0.08	0.17)
=1 if working full-time	0.16	0.13	0.00	0.16	(-0.09	0.40)	0.16	0.13	0.00	0.16	(-0.09	0.41)	0.16	0.13	0.00	0.16	(-0.09	0.41)
<i>How long mother breastfed child</i>																		
=1 if at least 6 months	-0.29	0.07	0.00	-0.29	(-0.43	-0.15)	-0.29	0.07	0.00	-0.29	(-0.43	-0.15)	-0.30	0.07	0.00	-0.29	(-0.43	-0.16)
<i>If child is naughty...</i>																		

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Table A.3.81 – continued from previous page

	BAS PC					BAS WR					NFER Math				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.25	0.24	0.00	0.24	(-0.23 0.72)	0.25	0.24	0.00	0.25	(-0.21 0.72)	0.25	0.24	0.00	0.25	(-0.21 0.73)
=1 if mother tells child off	0.67	0.06	0.00	0.67	(0.56 0.79)	0.67	0.06	0.00	0.67	(0.56 0.79)	0.67	0.06	0.00	0.67	(0.56 0.79)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	-0.62	0.10	0.00	-0.62	(-0.82 -0.42)	-0.62	0.10	0.00	-0.62	(-0.82 -0.42)	-0.62	0.10	0.00	-0.62	(-0.82 -0.43)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	0.07	0.08	0.00	0.07	(-0.09 0.23)	0.07	0.08	0.00	0.07	(-0.09 0.22)	0.07	0.08	0.00	0.07	(-0.09 0.23)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.45	0.14	0.00	-0.45	(-0.72 -0.18)	-0.45	0.14	0.00	-0.44	(-0.72 -0.17)	-0.45	0.14	0.00	-0.45	(-0.73 -0.17)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.04	0.06	0.00	0.04	(-0.09 0.16)	0.04	0.06	0.00	0.04	(-0.08 0.16)	0.04	0.06	0.00	0.04	(-0.09 0.16)
<i>Maternal mental health</i>															
=1 if high distress	0.69	0.19	0.00	0.69	(0.31 1.05)	0.69	0.19	0.00	0.69	(0.32 1.05)	0.69	0.19	0.00	0.69	(0.32 1.05)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.18	0.09	0.00	0.18	(0.01 0.35)	0.18	0.09	0.00	0.18	(0.01 0.35)	0.18	0.09	0.00	0.18	(0.02 0.35)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.03	0.07	0.00	-0.03	(-0.17 0.11)	-0.03	0.07	0.00	-0.03	(-0.17 0.11)	-0.03	0.07	0.00	-0.03	(-0.17 0.11)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.29	0.12	0.00	0.29	(0.06 0.52)	0.29	0.12	0.00	0.29	(0.06 0.53)	0.29	0.12	0.00	0.29	(0.05 0.53)
=1 if rented (housing association or private)/ other	0.24	0.10	0.00	0.24	(0.05 0.43)	0.24	0.10	0.00	0.24	(0.05 0.43)	0.24	0.10	0.00	0.24	(0.05 0.43)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	-0.04	0.15	0.00	-0.05	(-0.34 0.25)	-0.04	0.15	0.00	-0.04	(-0.33 0.25)	-0.04	0.15	0.00	-0.04	(-0.33 0.26)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.11	0.12	0.00	0.11	(-0.14 0.34)	0.11	0.12	0.00	0.11	(-0.13 0.35)	0.11	0.12	0.00	0.11	(-0.13 0.35)
=1 if managerial/ professional occupation	-0.18	0.08	0.00	-0.18	(-0.33 -0.04)	-0.18	0.07	0.00	-0.19	(-0.33 -0.04)	-0.18	0.08	0.00	-0.18	(-0.33 -0.03)
=1 if technical, semi-routine or routine occupation	0.08	0.07	0.00	0.08	(-0.05 0.21)	0.08	0.07	0.00	0.08	(-0.05 0.21)	0.08	0.07	0.00	0.08	(-0.05 0.21)
=1 if can't remember or father died	0.18	0.12	0.00	0.18	(-0.06 0.41)	0.18	0.12	0.00	0.18	(-0.06 0.41)	0.18	0.12	0.00	0.18	(-0.07 0.42)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	0.18	0.12	0.00	0.19	(-0.06 0.42)	0.18	0.12	0.00	0.18	(-0.06 0.43)	0.18	0.12	0.00	0.18	(-0.06 0.42)
Hyperactivity Risk Factors															
<i>Gestational age</i>															
=1 if gestational age < 37 weeks	-0.06	0.13	0.00	-0.06	(-0.32 0.19)	-0.06	0.13	0.00	-0.06	(-0.32 0.19)	-0.07	0.13	0.00	-0.07	(-0.33 0.20)
<i>Maternal mental health (age 1)</i>															
=1 if increased risk of depression/ anxiety	0.11	0.09	0.00	0.11	(-0.06 0.29)	0.11	0.09	0.00	0.11	(-0.07 0.29)	0.11	0.09	0.00	0.11	(-0.06 0.29)
<i>Alcohol consumption during pregnancy</i>															
=1 if 1-2 times per month	-0.01	0.10	0.00	-0.01	(-0.20 0.17)	-0.01	0.10	0.00	-0.02	(-0.21 0.18)	-0.02	0.10	0.00	-0.01	(-0.20 0.18)
=1 if at least once a week	-0.13	0.09	0.00	-0.13	(-0.31 0.05)	-0.13	0.09	0.00	-0.13	(-0.31 0.06)	-0.13	0.09	0.00	-0.13	(-0.31 0.06)
<i>Smoking during pregnancy</i>															
=1 if mother smoked during pregnancy	0.04	0.09	0.00	0.04	(-0.14 0.21)	0.04	0.09	0.00	0.04	(-0.14 0.22)	0.03	0.09	0.00	0.03	(-0.14 0.21)
<i>Smoking in the same room as child</i>															
=1 if anyone smokes in same room as child (age 1)	0.23	0.11	0.00	0.23	(0.02 0.44)	0.23	0.10	0.00	0.23	(0.03 0.43)	0.23	0.10	0.00	0.23	(0.02 0.43)
=1 if anyone smokes in same room as child (age 3)	0.09	0.09	0.00	0.09	(-0.09 0.28)	0.09	0.09	0.00	0.09	(-0.09 0.27)	0.09	0.09	0.00	0.09	(-0.09 0.28)

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Table A.3.81 – continued from previous page

	BAS PC					BAS WR					NFER Math				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
<i>Maternal attachment</i>															
Condon scale score (age 1)	-0.09	0.03	0.00	-0.09	(-0.15 -0.03)	-0.09	0.03	0.00	-0.09	(-0.15 -0.03)	-0.09	0.03	0.00	-0.09	(-0.15 -0.03)
<i>Child-parent relationship</i>															
Condon scale score (age 3)	-0.55	0.03	0.00	-0.55	(-0.61 -0.48)	-0.55	0.03	0.00	-0.55	(-0.61 -0.48)	-0.55	0.03	0.00	-0.55	(-0.61 -0.49)
<i>Maltreatment of children</i>															
Straus's conflict tactics scale (age 3)	0.16	0.03	0.00	0.16	(0.10 0.22)	0.16	0.03	0.00	0.16	(0.10 0.22)	0.16	0.03	0.00	0.16	(0.10 0.22)
constant	5.33	0.66	0.01	5.34	(4.03 6.61)	5.32	0.65	0.01	5.32	(4.03 6.60)	5.34	0.67	0.01	5.33	(4.03 6.64)
σ_{τ}	1.75	0.02	0.00	1.75	(1.70 1.79)	1.75	0.02	0.00	1.75	(1.70 1.79)	1.75	0.02	0.00	1.75	(1.71 1.79)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.82: Bayesian Estimates: SDQ ES/ CP and # Chronic Conditions (Eq. 1, LP, Age 7)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
number of health problems	0.09	0.08	0.00	0.08	(-0.05 0.28)	0.08	0.09	0.00	0.07	(-0.09 0.26)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.06	0.07	0.00	-0.06	(-0.19 0.07)	-0.01	0.06	0.00	-0.01	(-0.13 0.11)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.11	0.07	0.00	0.11	(-0.02 0.24)	0.14	0.06	0.00	0.14	(0.01 0.26)	
=1 if NVQ level 3	-0.02	0.08	0.00	-0.02	(-0.17 0.13)	0.08	0.07	0.00	0.08	(-0.06 0.22)	
=1 if overseas qual. only	0.26	0.17	0.00	0.26	(-0.08 0.60)	0.24	0.16	0.00	0.24	(-0.08 0.55)	
=1 if none of these	0.17	0.10	0.00	0.17	(-0.03 0.36)	0.34	0.09	0.00	0.34	(0.16 0.52)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	-0.12	0.10	0.00	-0.12	(-0.31 0.08)	0.27	0.09	0.00	0.27	(0.09 0.45)	
=1 if 25 to 29 years	-0.01	0.09	0.00	-0.01	(-0.19 0.17)	0.19	0.08	0.00	0.19	(0.03 0.35)	
=1 if 30 to 34 years	-0.05	0.09	0.00	-0.05	(-0.23 0.13)	0.08	0.08	0.00	0.08	(-0.08 0.25)	
<i>Child demography</i>											
=1 if female	0.12	0.05	0.00	0.12	(0.03 0.22)	-0.14	0.05	0.00	-0.14	(-0.23 -0.05)	
age (years)	-0.01	0.08	0.00	-0.01	(-0.17 0.15)	-0.16	0.08	0.00	-0.16	(-0.31 -0.00)	
=1 if ethnicity is non-white	-0.03	0.09	0.00	-0.03	(-0.22 0.15)	-0.06	0.09	0.00	-0.06	(-0.23 0.11)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.02	0.10	0.00	0.02	(-0.17 0.22)	0.29	0.09	0.00	0.29	(0.11 0.46)	
<i>Size of household</i>											
log of hh size incl. cm	0.17	0.10	0.00	0.17	(-0.02 0.36)	0.22	0.09	0.00	0.22	(0.04 0.40)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.14	0.06	0.00	0.14	(0.01 0.27)	-0.01	0.06	0.00	-0.01	(-0.13 0.11)	
=1 if two or more older siblings	-0.11	0.08	0.00	-0.11	(-0.26 0.04)	-0.05	0.07	0.00	-0.05	(-0.19 0.08)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.08	0.15	0.00	0.08	(-0.23 0.38)	-0.00	0.14	0.00	-0.01	(-0.28 0.28)	
<i>Country where interview took place</i>											
=1 if wales	0.41	0.26	0.00	0.41	(-0.10 0.92)	-0.05	0.24	0.00	-0.05	(-0.53 0.43)	
=1 if nireland	0.39	0.50	0.00	0.39	(-0.60 1.37)	0.83	0.49	0.00	0.83	(-0.14 1.80)	
=1 if scotland	-0.17	0.30	0.00	-0.16	(-0.77 0.41)	0.10	0.29	0.00	0.10	(-0.47 0.66)	
Time and Care											
<i>Time mother spents with child</i>											
=1 if at least just enough	-0.11	0.05	0.00	-0.11	(-0.22 -0.01)	-0.06	0.05	0.00	-0.06	(-0.16 0.04)	
<i>Childcare</i>											
=1 if formal childcare	0.32	0.11	0.00	0.32	(0.12 0.53)	0.13	0.10	0.00	0.13	(-0.06 0.32)	
=1 if informal/ other childcare	0.09	0.08	0.00	0.09	(-0.07 0.24)	0.11	0.07	0.00	0.11	(-0.03 0.26)	
=1 if grandparent care	0.06	0.06	0.00	0.06	(-0.06 0.19)	-0.04	0.06	0.00	-0.04	(-0.15 0.08)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.17	0.06	0.00	-0.17	(-0.29 -0.05)	-0.02	0.06	0.00	-0.02	(-0.14 0.09)	
=1 if working full-time	-0.10	0.12	0.00	-0.10	(-0.34 0.12)	0.02	0.11	0.00	0.02	(-0.20 0.24)	
<i>How long mother breastfed child</i>											

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Table A.3.82 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.10	0.08	0.00	0.10	(-0.05 0.26)	-0.05	0.07	0.00	-0.05	(-0.19 0.10)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.34	0.22	0.00	0.34	(-0.08 0.76)	1.03	0.20	0.00	1.03	(0.63 1.42)
=1 if mother tells child off	0.23	0.05	0.00	0.22	(0.13 0.32)	0.62	0.05	0.00	0.62	(0.53 0.71)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.16	0.08	0.00	-0.16	(-0.32 -0.00)	-0.18	0.07	0.00	-0.18	(-0.33 -0.03)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.03	0.07	0.00	0.03	(-0.10 0.16)	0.02	0.06	0.00	0.02	(-0.10 0.14)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	0.00	0.08	0.00	0.00	(-0.15 0.16)	-0.20	0.07	0.00	-0.20	(-0.34 -0.05)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.09	0.06	0.00	0.09	(-0.02 0.20)	0.10	0.05	0.00	0.10	(-0.00 0.20)
<i>Maternal mental health</i>										
=1 if high distress	0.72	0.10	0.00	0.72	(0.51 0.93)	0.30	0.10	0.00	0.30	(0.10 0.49)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.01	0.05	0.00	0.01	(-0.10 0.11)	0.07	0.05	0.00	0.07	(-0.03 0.16)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	0.02	0.07	0.00	0.02	(-0.12 0.15)	0.10	0.07	0.00	0.10	(-0.03 0.23)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.15	0.08	0.00	0.15	(-0.01 0.31)	0.14	0.08	0.00	0.14	(-0.01 0.29)
=1 if rented (housing association or private)/ other	0.08	0.07	0.00	0.08	(-0.06 0.21)	0.03	0.06	0.00	0.03	(-0.10 0.15)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.17	0.10	0.00	-0.17	(-0.36 0.02)	-0.04	0.09	0.00	-0.04	(-0.22 0.14)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.06	0.09	0.00	0.06	(-0.11 0.24)	0.00	0.08	0.00	0.00	(-0.16 0.17)
=1 if managerial/ professional occupation	0.00	0.08	0.00	0.00	(-0.15 0.16)	0.01	0.08	0.00	0.01	(-0.14 0.15)
=1 if technical, semi-routine or routine occupation	-0.03	0.06	0.00	-0.03	(-0.16 0.09)	-0.03	0.06	0.00	-0.03	(-0.14 0.08)
=1 if can't remember or father died	-0.04	0.10	0.00	-0.04	(-0.22 0.15)	0.01	0.09	0.00	0.01	(-0.17 0.18)
constant	0.07	0.66	0.01	0.07	(-1.20 1.36)	0.64	0.63	0.01	0.63	(-0.59 1.84)
σ_ϵ	0.94	0.03	0.00	0.95	(0.86 0.99)	0.87	0.03	0.00	0.87	(0.80 0.91)
σ_ζ	0.16	0.12	0.02	0.13	(0.03 0.45)	0.22	0.10	0.01	0.20	(0.06 0.41)
$\rho_{\zeta\epsilon}$	-0.16	0.55	0.05	-0.26	(-0.97 0.91)	-0.48	0.47	0.04	-0.60	(-1.00 0.63)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.83: Bayesian Estimates: SDQ ES/ CP and # Chronic Conditions (Eq. 1, TP, Age 7)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
number of health problems	0.71	0.03	0.00	0.71	(0.65 0.78)	0.53	0.06	0.00	0.55	(0.38 0.62)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.11	0.04	0.00	-0.11	(-0.18 -0.04)	-0.16	0.03	0.00	-0.16	(-0.22 -0.09)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.02	0.03	0.00	0.02	(-0.05 0.08)	0.06	0.03	0.00	0.06	(0.01 0.12)	
=1 if NVQ level 3	-0.01	0.03	0.00	-0.01	(-0.08 0.06)	0.02	0.03	0.00	0.02	(-0.04 0.09)	
=1 if overseas qual. only	0.05	0.11	0.00	0.05	(-0.15 0.26)	0.16	0.09	0.00	0.16	(-0.02 0.34)	
=1 if none of these	0.04	0.06	0.00	0.04	(-0.08 0.16)	0.05	0.06	0.00	0.05	(-0.06 0.16)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	0.05	0.05	0.00	0.05	(-0.04 0.15)	0.14	0.05	0.00	0.14	(0.05 0.24)	
=1 if 25 to 29 years	0.03	0.04	0.00	0.03	(-0.04 0.10)	-0.01	0.04	0.00	-0.01	(-0.09 0.06)	
=1 if 30 to 34 years	0.00	0.04	0.00	0.00	(-0.07 0.07)	-0.01	0.03	0.00	-0.01	(-0.07 0.06)	
<i>Child demography</i>											
=1 if female	0.13	0.02	0.00	0.13	(0.08 0.17)	-0.11	0.02	0.00	-0.10	(-0.15 -0.06)	
age (years)	-0.03	0.05	0.00	-0.03	(-0.13 0.06)	-0.01	0.04	0.00	-0.01	(-0.10 0.07)	
=1 if ethnicity is non-white	-0.06	0.06	0.00	-0.06	(-0.18 0.05)	-0.12	0.05	0.00	-0.12	(-0.23 -0.02)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.07	0.05	0.00	0.07	(-0.04 0.18)	0.05	0.05	0.00	0.05	(-0.04 0.15)	
<i>Size of household</i>											
log of hh size incl. cm	0.24	0.07	0.00	0.24	(0.10 0.38)	0.16	0.07	0.00	0.16	(0.03 0.29)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.08	0.03	0.00	0.08	(0.02 0.13)	-0.11	0.03	0.00	-0.11	(-0.16 -0.06)	
=1 if two or more older siblings	-0.11	0.04	0.00	-0.11	(-0.18 -0.03)	-0.05	0.04	0.00	-0.05	(-0.13 0.02)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	-0.04	0.09	0.00	-0.05	(-0.23 0.14)	0.16	0.09	0.00	0.15	(-0.02 0.33)	
<i>Country where interview took place</i>											
=1 if wales	-0.26	0.12	0.00	-0.26	(-0.49 -0.03)	-0.13	0.11	0.00	-0.13	(-0.34 0.10)	
=1 if nireland	-0.05	0.25	0.00	-0.05	(-0.55 0.45)	-0.32	0.24	0.00	-0.32	(-0.78 0.16)	
=1 if scotland	0.08	0.15	0.00	0.08	(-0.20 0.37)	0.07	0.14	0.00	0.07	(-0.20 0.35)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.11	0.02	0.00	-0.11	(-0.16 -0.07)	-0.07	0.02	0.00	-0.07	(-0.12 -0.02)	
<i>Childcare</i>											
=1 if formal childcare	0.00	0.05	0.00	0.00	(-0.10 0.11)	0.00	0.05	0.00	0.00	(-0.10 0.10)	
=1 if informal/ other childcare	-0.01	0.04	0.00	-0.01	(-0.09 0.07)	0.01	0.04	0.00	0.01	(-0.06 0.09)	
=1 if grandparent care	-0.01	0.03	0.00	-0.01	(-0.07 0.04)	-0.01	0.03	0.00	-0.01	(-0.07 0.04)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.07	0.03	0.00	-0.07	(-0.13 -0.02)	-0.04	0.03	0.00	-0.04	(-0.09 0.01)	
=1 if working full-time	-0.10	0.06	0.00	-0.10	(-0.21 0.01)	-0.03	0.05	0.00	-0.03	(-0.14 0.07)	
<i>How long mother breastfed child</i>											

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Table A.3.83 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	-0.04	0.03	0.00	-0.04	(-0.11 0.02)	-0.12	0.03	0.00	-0.12	(-0.17 -0.06)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.13	0.12	0.00	0.13	(-0.11 0.38)	0.69	0.12	0.00	0.69	(0.46 0.92)
=1 if mother tells child off	0.20	0.02	0.00	0.20	(0.16 0.25)	0.58	0.02	0.00	0.58	(0.54 0.62)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.18	0.05	0.00	-0.18	(-0.27 -0.09)	-0.23	0.04	0.00	-0.23	(-0.31 -0.15)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.13	0.03	0.00	0.13	(0.06 0.19)	0.05	0.03	0.00	0.05	(-0.01 0.11)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	0.06	0.04	0.00	0.06	(-0.02 0.14)	-0.07	0.04	0.00	-0.07	(-0.15 0.00)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.11	0.03	0.00	0.11	(0.06 0.16)	0.03	0.03	0.00	0.03	(-0.02 0.08)
<i>Maternal mental health</i>										
=1 if high distress	0.64	0.08	0.00	0.64	(0.49 0.80)	0.49	0.07	0.00	0.49	(0.35 0.64)
<i>Does mother currently smoke</i>										
=1 if currently smokes	-0.02	0.03	0.00	-0.02	(-0.08 0.04)	0.14	0.03	0.00	0.14	(0.08 0.20)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.03	0.03	0.00	-0.03	(-0.09 0.02)	-0.02	0.03	0.00	-0.02	(-0.07 0.04)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.09	0.05	0.00	0.09	(-0.01 0.18)	0.22	0.05	0.00	0.22	(0.12 0.32)
=1 if rented (housing association or private)/ other	0.07	0.04	0.00	0.07	(-0.01 0.16)	0.10	0.04	0.00	0.10	(0.02 0.18)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.13	0.06	0.00	-0.13	(-0.23 -0.02)	-0.13	0.06	0.00	-0.13	(-0.24 -0.03)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.07	0.05	0.00	0.07	(-0.04 0.18)	0.09	0.05	0.00	0.09	(-0.01 0.19)
=1 if managerial/ professional occupation	0.06	0.03	0.00	0.06	(-0.01 0.12)	-0.02	0.03	0.00	-0.02	(-0.08 0.05)
=1 if technical, semi-routine or routine occupation	0.01	0.03	0.00	0.01	(-0.04 0.07)	-0.00	0.03	0.00	-0.00	(-0.06 0.05)
=1 if can't remember or father died	-0.02	0.05	0.00	-0.02	(-0.13 0.08)	0.11	0.05	0.00	0.11	(0.01 0.21)
constant	0.56	0.41	0.01	0.56	(-0.24 1.38)	0.74	0.39	0.01	0.74	(-0.03 1.50)
σ_ϵ	0.60	0.04	0.00	0.61	(0.53 0.69)	0.65	0.06	0.01	0.64	(0.55 0.80)
σ_ζ	0.81	0.04	0.00	0.81	(0.72 0.87)	0.66	0.08	0.02	0.68	(0.45 0.76)
$\rho_{\zeta\epsilon}$	-0.99	0.01	0.00	-0.99	(-1.00 -0.96)	-0.98	0.02	0.00	-0.99	(-1.00 -0.91)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.84: Bayesian Estimates: SDQ ES/ CP and # Chronic Conditions (Eq. 2, LP, Age 7)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.39	0.17	0.01	-0.39	(-0.72 -0.08)	-0.38	0.17	0.01	-0.39	(-0.72 -0.05)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	-0.16	0.17	0.00	-0.16	(-0.50 0.17)	-0.17	0.17	0.00	-0.18	(-0.50 0.18)	
=1 if NVQ level 3	-0.08	0.20	0.00	-0.09	(-0.49 0.31)	-0.09	0.20	0.00	-0.09	(-0.48 0.32)	
=1 if overseas qual. only	-0.51	0.44	0.00	-0.50	(-1.42 0.33)	-0.50	0.44	0.00	-0.49	(-1.41 0.36)	
=1 if none of these	-0.19	0.24	0.00	-0.20	(-0.65 0.27)	-0.21	0.24	0.00	-0.21	(-0.68 0.26)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	-0.10	0.24	0.00	-0.10	(-0.57 0.38)	-0.10	0.24	0.00	-0.10	(-0.57 0.38)	
=1 if 25 to 29 years	0.12	0.22	0.00	0.12	(-0.31 0.56)	0.12	0.22	0.00	0.12	(-0.31 0.55)	
=1 if 30 to 34 years	0.10	0.22	0.00	0.10	(-0.35 0.54)	0.11	0.22	0.00	0.10	(-0.33 0.55)	
<i>Child demography</i>											
=1 if female	-0.18	0.13	0.00	-0.18	(-0.43 0.08)	-0.17	0.13	0.00	-0.17	(-0.42 0.08)	
age (years)	0.00	0.19	0.01	0.00	(-0.38 0.39)	-0.02	0.21	0.01	-0.02	(-0.43 0.39)	
=1 if ethnicity is non-white	-0.49	0.26	0.00	-0.49	(-1.02 0.01)	-0.51	0.26	0.00	-0.50	(-1.04 -0.00)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.30	0.23	0.00	0.31	(-0.15 0.75)	0.31	0.23	0.00	0.31	(-0.16 0.74)	
<i>Size of household</i>											
log of hh size incl. cm	-0.22	0.23	0.00	-0.22	(-0.68 0.23)	-0.22	0.23	0.00	-0.22	(-0.69 0.23)	
<i>Number of older siblings</i>											
=1 if no older siblings	-0.21	0.16	0.00	-0.21	(-0.53 0.11)	-0.20	0.17	0.00	-0.20	(-0.53 0.13)	
=1 if two or more older siblings	-0.00	0.20	0.00	-0.00	(-0.38 0.38)	0.00	0.19	0.00	0.00	(-0.37 0.39)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.70	0.52	0.02	0.68	(-0.26 1.76)	0.68	0.50	0.02	0.67	(-0.25 1.71)	
<i>Country where interview took place</i>											
=1 if wales	-0.06	0.47	0.01	-0.06	(-0.97 0.86)	-0.05	0.48	0.01	-0.05	(-0.96 0.89)	
=1 if nireland	-0.17	0.59	0.01	-0.16	(-1.35 0.98)	-0.14	0.59	0.01	-0.15	(-1.30 1.04)	
=1 if scotland	-0.54	0.51	0.01	-0.55	(-1.55 0.46)	-0.54	0.52	0.01	-0.53	(-1.57 0.48)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.25	0.14	0.00	-0.25	(-0.53 0.03)	-0.24	0.14	0.00	-0.24	(-0.52 0.03)	
<i>Childcare</i>											
=1 if formal childcare	0.01	0.29	0.00	0.01	(-0.57 0.57)	0.01	0.29	0.00	0.02	(-0.58 0.56)	
=1 if informal/ other childcare	0.19	0.22	0.00	0.19	(-0.26 0.63)	0.16	0.22	0.00	0.17	(-0.29 0.59)	
=1 if grandparent care	0.16	0.16	0.00	0.16	(-0.16 0.47)	0.15	0.16	0.00	0.15	(-0.16 0.45)	
<i>Maternal employment (t - 1)</i>											
=1 if working part-time	0.04	0.15	0.00	0.04	(-0.27 0.33)	0.02	0.16	0.00	0.02	(-0.29 0.32)	
=1 if working full-time	-0.23	0.36	0.00	-0.22	(-0.96 0.48)	-0.27	0.37	0.00	-0.26	(-1.01 0.44)	
<i>How long mother breastfed child</i>											
=1 if at least 6 months	0.03	0.21	0.00	0.03	(-0.38 0.43)	0.02	0.20	0.00	0.02	(-0.38 0.41)	
<i>If child is naughty...</i>											

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Table A.3.84 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.75	0.36	0.00	0.76	(0.03 1.43)	0.79	0.36	0.00	0.80	(0.07 1.47)
=1 if mother tells child off	0.09	0.13	0.00	0.09	(-0.17 0.36)	0.11	0.14	0.00	0.11	(-0.16 0.38)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.03	0.19	0.00	-0.03	(-0.39 0.34)	-0.03	0.19	0.00	-0.03	(-0.40 0.35)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.12	0.16	0.00	0.12	(-0.20 0.44)	0.12	0.16	0.00	0.13	(-0.20 0.44)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	0.40	0.30	0.01	0.40	(-0.17 1.02)	0.37	0.30	0.01	0.36	(-0.22 0.97)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.73	0.13	0.00	0.73	(0.48 1.00)	0.74	0.13	0.00	0.73	(0.47 1.00)
<i>Maternal mental health</i>										
=1 if high distress	0.31	0.25	0.00	0.32	(-0.18 0.78)	0.33	0.25	0.00	0.33	(-0.16 0.80)
<i>Does mother currently smoke</i>										
=1 if currently smokes	-0.03	0.13	0.00	-0.03	(-0.29 0.23)	-0.02	0.13	0.00	-0.03	(-0.29 0.24)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.48	0.21	0.00	-0.48	(-0.89 -0.08)	-0.48	0.21	0.00	-0.48	(-0.89 -0.08)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.13	0.20	0.00	0.12	(-0.26 0.52)	0.12	0.20	0.00	0.12	(-0.27 0.50)
=1 if rented (housing association or private)/ other	-0.03	0.19	0.00	-0.03	(-0.39 0.34)	-0.03	0.18	0.00	-0.03	(-0.39 0.33)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.02	0.25	0.00	-0.02	(-0.50 0.48)	-0.02	0.25	0.00	-0.02	(-0.50 0.48)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	-0.02	0.22	0.00	-0.02	(-0.46 0.41)	-0.03	0.22	0.00	-0.03	(-0.46 0.40)
=1 if managerial/ professional occupation	-0.09	0.21	0.00	-0.09	(-0.49 0.32)	-0.08	0.21	0.00	-0.08	(-0.49 0.32)
=1 if technical, semi-routine or routine occupation	-0.09	0.16	0.00	-0.09	(-0.40 0.21)	-0.09	0.16	0.00	-0.09	(-0.40 0.21)
=1 if can't remember or father died	-0.08	0.24	0.00	-0.08	(-0.55 0.39)	-0.08	0.24	0.00	-0.08	(-0.57 0.38)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	0.26	0.20	0.00	0.27	(-0.13 0.64)	0.25	0.19	0.00	0.25	(-0.13 0.64)
constant	-0.27	0.89	0.05	-0.26	(-2.05 1.43)	-0.15	0.85	0.04	-0.16	(-1.79 1.56)
α	9.06	6.08	0.30	7.40	(2.89 25.22)	9.13	6.89	0.37	7.36	(2.87 25.28)
$\ln\alpha$	2.04	0.56	0.03	2.00	(1.06 3.23)	2.04	0.56	0.03	2.00	(1.05 3.23)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.85: Bayesian Estimates: SDQ ES/ CP and # Chronic Conditions (Eq. 2, TP, Age 7)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.16	0.08	0.01	-0.16	(-0.33 -0.01)	-0.15	0.08	0.01	-0.15	(-0.31 0.02)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	-0.15	0.08	0.00	-0.15	(-0.30 -0.00)	-0.11	0.08	0.00	-0.11	(-0.26 0.04)	
=1 if NVQ level 3	-0.07	0.09	0.00	-0.07	(-0.24 0.10)	-0.08	0.09	0.00	-0.09	(-0.25 0.09)	
=1 if overseas qual. only	0.14	0.22	0.00	0.14	(-0.30 0.55)	0.17	0.22	0.00	0.17	(-0.27 0.59)	
=1 if none of these	-0.15	0.14	0.00	-0.15	(-0.43 0.12)	-0.19	0.14	0.00	-0.19	(-0.47 0.08)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	0.07	0.12	0.00	0.07	(-0.16 0.30)	0.11	0.12	0.00	0.11	(-0.12 0.34)	
=1 if 25 to 29 years	0.13	0.09	0.00	0.13	(-0.05 0.31)	0.15	0.10	0.00	0.15	(-0.04 0.34)	
=1 if 30 to 34 years	0.04	0.09	0.00	0.04	(-0.13 0.21)	0.05	0.09	0.00	0.05	(-0.12 0.23)	
<i>Child demography</i>											
=1 if female	-0.35	0.06	0.00	-0.35	(-0.47 -0.23)	-0.33	0.06	0.00	-0.33	(-0.45 -0.21)	
age (years)	0.18	0.11	0.01	0.18	(-0.02 0.39)	0.13	0.10	0.01	0.13	(-0.08 0.32)	
=1 if ethnicity is non-white	0.01	0.13	0.00	0.01	(-0.24 0.27)	-0.02	0.13	0.00	-0.02	(-0.28 0.24)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.30	0.12	0.00	0.30	(0.06 0.54)	0.30	0.12	0.00	0.30	(0.07 0.54)	
<i>Size of household</i>											
log of hh size incl. cm	-0.25	0.16	0.00	-0.25	(-0.56 0.06)	-0.33	0.17	0.01	-0.33	(-0.65 -0.00)	
<i>Number of older siblings</i>											
=1 if no older siblings	-0.03	0.07	0.00	-0.03	(-0.17 0.11)	-0.04	0.07	0.00	-0.03	(-0.18 0.11)	
=1 if two or more older siblings	-0.09	0.09	0.00	-0.08	(-0.27 0.10)	-0.06	0.09	0.00	-0.06	(-0.25 0.12)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.35	0.26	0.01	0.34	(-0.16 0.88)	0.24	0.27	0.01	0.23	(-0.27 0.81)	
<i>Country where interview took place</i>											
=1 if wales	0.44	0.28	0.00	0.44	(-0.10 0.97)	0.45	0.28	0.00	0.44	(-0.10 1.00)	
=1 if nireland	-0.18	0.44	0.01	-0.17	(-1.03 0.67)	-0.15	0.43	0.01	-0.16	(-0.98 0.71)	
=1 if scotland	-0.61	0.29	0.01	-0.62	(-1.18 -0.03)	-0.76	0.31	0.01	-0.77	(-1.37 -0.16)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.09	0.06	0.00	-0.09	(-0.21 0.03)	-0.10	0.06	0.00	-0.10	(-0.23 0.02)	
<i>Childcare</i>											
=1 if formal childcare	-0.05	0.13	0.00	-0.05	(-0.30 0.21)	-0.03	0.13	0.00	-0.03	(-0.30 0.22)	
=1 if informal/ other childcare	0.08	0.11	0.00	0.08	(-0.13 0.28)	0.07	0.11	0.00	0.08	(-0.14 0.28)	
=1 if grandparent care	-0.02	0.07	0.00	-0.02	(-0.15 0.12)	-0.07	0.07	0.00	-0.07	(-0.21 0.07)	
<i>Maternal employment (t - 1)</i>											
=1 if working part-time	-0.06	0.07	0.00	-0.06	(-0.20 0.06)	-0.04	0.07	0.00	-0.04	(-0.17 0.09)	
=1 if working full-time	0.01	0.13	0.00	0.01	(-0.26 0.27)	0.02	0.14	0.00	0.02	(-0.26 0.29)	
<i>How long mother breastfed child</i>											
=1 if at least 6 months	0.12	0.08	0.00	0.12	(-0.03 0.27)	0.08	0.08	0.00	0.08	(-0.07 0.23)	
<i>If child is naughty...</i>											

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Table A.3.85 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.35	0.27	0.00	-0.34	(-0.89 0.16)	-0.21	0.28	0.00	-0.20	(-0.79 0.32)
=1 if mother tells child off	0.08	0.06	0.00	0.08	(-0.03 0.20)	0.12	0.06	0.00	0.12	(0.01 0.24)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.12	0.10	0.00	-0.12	(-0.30 0.08)	-0.19	0.10	0.00	-0.20	(-0.38 0.00)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.11	0.08	0.00	0.11	(-0.05 0.26)	0.15	0.08	0.00	0.15	(-0.01 0.31)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	0.02	0.14	0.00	0.02	(-0.25 0.29)	-0.08	0.14	0.00	-0.08	(-0.35 0.20)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.58	0.06	0.00	0.58	(0.46 0.70)	0.59	0.06	0.00	0.59	(0.46 0.71)
<i>Maternal mental health</i>										
=1 if high distress	0.31	0.16	0.00	0.31	(-0.00 0.61)	0.31	0.16	0.00	0.31	(-0.02 0.62)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.05	0.07	0.00	0.05	(-0.09 0.19)	0.05	0.07	0.00	0.05	(-0.10 0.19)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.15	0.08	0.00	-0.15	(-0.30 -0.01)	-0.12	0.08	0.00	-0.12	(-0.28 0.03)
Other										
<i>Housing tenure</i>										
=1 if council rented	-0.07	0.12	0.00	-0.07	(-0.30 0.16)	-0.15	0.12	0.00	-0.15	(-0.39 0.09)
=1 if rented (housing association or private)/ other	-0.08	0.10	0.00	-0.08	(-0.27 0.11)	0.01	0.10	0.00	0.01	(-0.18 0.21)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.13	0.14	0.00	-0.14	(-0.41 0.15)	-0.07	0.15	0.00	-0.07	(-0.36 0.21)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.14	0.12	0.00	0.14	(-0.11 0.37)	0.17	0.13	0.00	0.17	(-0.08 0.42)
=1 if managerial/ professional occupation	-0.08	0.08	0.00	-0.08	(-0.24 0.08)	-0.05	0.09	0.00	-0.05	(-0.22 0.12)
=1 if technical, semi-routine or routine occupation	0.07	0.07	0.00	0.07	(-0.06 0.21)	0.08	0.07	0.00	0.08	(-0.07 0.23)
=1 if can't remember or father died	0.09	0.13	0.00	0.09	(-0.16 0.33)	0.03	0.13	0.00	0.03	(-0.23 0.28)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	0.27	0.11	0.00	0.27	(0.06 0.47)	0.30	0.11	0.00	0.30	(0.08 0.51)
constant	-1.61	0.69	0.06	-1.62	(-2.96 -0.25)	-1.18	0.68	0.06	-1.16	(-2.54 0.08)
α	32.13	19.99	2.06	26.14	(11.49 84.78)	27.82	16.80	1.63	23.47	(9.20 76.44)
$\ln\alpha$	3.32	0.52	0.05	3.26	(2.44 4.44)	3.18	0.53	0.05	3.16	(2.22 4.34)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.86: Bayesian Estimates: SDQ PR/ PB and # Chronic Conditions (Eq. 1, LP, Age 7)

	SDQ PR					SDQ PB					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
number of health problems	0.13	0.08	0.00	0.12	(-0.02 0.31)	-0.01	0.08	0.00	0.01	(-0.20 0.12)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.08	0.07	0.00	-0.08	(-0.21 0.05)	-0.09	0.07	0.00	-0.09	(-0.22 0.04)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.13	0.07	0.00	0.12	(-0.01 0.26)	-0.09	0.07	0.00	-0.09	(-0.23 0.04)	
=1 if NVQ level 3	0.02	0.08	0.00	0.02	(-0.13 0.18)	0.05	0.08	0.00	0.05	(-0.11 0.20)	
=1 if overseas qual. only	0.35	0.17	0.00	0.35	(0.01 0.70)	-0.19	0.18	0.00	-0.18	(-0.53 0.16)	
=1 if none of these	0.29	0.10	0.00	0.30	(0.10 0.49)	-0.14	0.10	0.00	-0.14	(-0.33 0.06)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	-0.08	0.10	0.00	-0.08	(-0.27 0.11)	0.04	0.10	0.00	0.04	(-0.15 0.24)	
=1 if 25 to 29 years	-0.06	0.09	0.00	-0.06	(-0.24 0.11)	0.08	0.09	0.00	0.08	(-0.10 0.26)	
=1 if 30 to 34 years	-0.06	0.09	0.00	-0.06	(-0.24 0.11)	0.03	0.09	0.00	0.03	(-0.15 0.20)	
<i>Child demography</i>											
=1 if female	-0.08	0.05	0.00	-0.08	(-0.17 0.02)	0.33	0.05	0.00	0.33	(0.23 0.43)	
age (years)	-0.01	0.08	0.00	-0.01	(-0.18 0.15)	0.10	0.08	0.00	0.10	(-0.06 0.27)	
=1 if ethnicity is non-white	0.11	0.09	0.00	0.11	(-0.08 0.30)	0.08	0.10	0.00	0.08	(-0.10 0.27)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.15	0.10	0.00	0.15	(-0.04 0.34)	-0.04	0.10	0.00	-0.04	(-0.23 0.15)	
<i>Size of household</i>											
log of hh size incl. cm	-0.09	0.10	0.00	-0.09	(-0.28 0.11)	-0.29	0.10	0.00	-0.29	(-0.49 -0.10)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.22	0.06	0.00	0.22	(0.10 0.35)	-0.02	0.06	0.00	-0.02	(-0.14 0.11)	
=1 if two or more older siblings	0.07	0.08	0.00	0.07	(-0.08 0.22)	0.09	0.08	0.00	0.09	(-0.07 0.24)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.00	0.15	0.00	0.00	(-0.30 0.30)	0.25	0.15	0.00	0.25	(-0.05 0.55)	
<i>Country where interview took place</i>											
=1 if wales	0.35	0.25	0.00	0.35	(-0.14 0.84)	-0.05	0.26	0.00	-0.05	(-0.56 0.46)	
=1 if nireland	-0.08	0.50	0.00	-0.07	(-1.05 0.89)	-0.45	0.50	0.01	-0.46	(-1.41 0.53)	
=1 if scotland	0.14	0.30	0.00	0.14	(-0.45 0.73)	-0.26	0.30	0.00	-0.26	(-0.85 0.32)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.09	0.05	0.00	-0.09	(-0.19 0.02)	0.02	0.06	0.00	0.02	(-0.09 0.13)	
<i>Childcare</i>											
=1 if formal childcare	0.30	0.11	0.00	0.30	(0.09 0.51)	-0.06	0.11	0.00	-0.06	(-0.27 0.15)	
=1 if informal/ other childcare	0.04	0.08	0.00	0.04	(-0.12 0.19)	-0.08	0.08	0.00	-0.07	(-0.24 0.08)	
=1 if grandparent care	0.03	0.06	0.00	0.02	(-0.09 0.15)	0.02	0.06	0.00	0.02	(-0.10 0.15)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.09	0.06	0.00	-0.09	(-0.21 0.03)	0.08	0.06	0.00	0.08	(-0.04 0.20)	
=1 if working full-time	0.04	0.12	0.00	0.04	(-0.19 0.27)	0.07	0.12	0.00	0.07	(-0.16 0.31)	
<i>How long mother breastfed child</i>											

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Table A.3.86 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.02	0.08	0.00	0.02	(-0.13 0.18)	0.04	0.08	0.00	0.04	(-0.12 0.19)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.41	0.22	0.00	0.41	(-0.00 0.83)	-0.50	0.22	0.00	-0.50	(-0.93 -0.07)
=1 if mother tells child off	0.07	0.05	0.00	0.07	(-0.03 0.17)	-0.29	0.05	0.00	-0.29	(-0.40 -0.20)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.01	0.08	0.00	-0.01	(-0.16 0.15)	0.13	0.08	0.00	0.13	(-0.03 0.29)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.16	0.07	0.00	0.16	(0.03 0.29)	-0.11	0.07	0.00	-0.11	(-0.23 0.02)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.12	0.08	0.00	-0.12	(-0.28 0.03)	0.23	0.08	0.00	0.23	(0.08 0.39)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.11	0.06	0.00	0.11	(0.00 0.22)	0.01	0.06	0.00	0.01	(-0.10 0.12)
<i>Maternal mental health</i>										
=1 if high distress	0.49	0.11	0.00	0.49	(0.28 0.70)	-0.06	0.11	0.00	-0.06	(-0.27 0.15)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.07	0.05	0.00	0.07	(-0.03 0.18)	-0.01	0.05	0.00	-0.01	(-0.12 0.09)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.24	0.07	0.00	-0.24	(-0.37 -0.10)	0.07	0.07	0.00	0.07	(-0.07 0.20)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.09	0.08	0.00	0.10	(-0.06 0.25)	-0.08	0.08	0.00	-0.08	(-0.24 0.08)
=1 if rented (housing association or private)/ other	0.10	0.07	0.00	0.10	(-0.03 0.24)	0.00	0.07	0.00	0.00	(-0.13 0.14)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.10	0.10	0.00	-0.10	(-0.29 0.09)	0.05	0.10	0.00	0.05	(-0.14 0.24)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	-0.07	0.09	0.00	-0.07	(-0.25 0.10)	-0.02	0.09	0.00	-0.02	(-0.19 0.15)
=1 if managerial/ professional occupation	0.05	0.08	0.00	0.05	(-0.11 0.21)	-0.08	0.08	0.00	-0.08	(-0.24 0.08)
=1 if technical, semi-routine or routine occupation	0.04	0.06	0.00	0.04	(-0.08 0.16)	0.06	0.06	0.00	0.06	(-0.06 0.18)
=1 if can't remember or father died	0.06	0.10	0.00	0.06	(-0.13 0.26)	-0.02	0.10	0.00	-0.02	(-0.21 0.16)
constant	0.46	0.66	0.01	0.46	(-0.83 1.76)	-0.52	0.66	0.01	-0.52	(-1.81 0.79)
σ_ϵ	0.94	0.03	0.00	0.94	(0.86 0.99)	0.96	0.03	0.00	0.96	(0.90 1.00)
σ_ζ	0.16	0.12	0.01	0.13	(0.02 0.43)	0.10	0.11	0.02	0.05	(0.00 0.36)
$\rho_{\zeta\xi}$	-0.23	0.52	0.04	-0.33	(-0.93 0.85)	0.05	0.64	0.08	0.03	(-0.92 1.00)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.87: Bayesian Estimates: SDQ PR/ PB and # Chronic Conditions (Eq. 1, TP, Age 7)

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)										
number of health problems	0.74	0.02	0.00	0.74	(0.69 0.78)	-0.65	0.03	0.00	-0.65	(-0.70 -0.59)
Standard Background Controls										
<i>Income</i>										
log of permanent family income (weekly, imp.)	-0.15	0.03	0.00	-0.15	(-0.22 -0.08)	0.03	0.03	0.00	0.03	(-0.04 0.09)
<i>Maternal education</i>										
=1 if NVQ level 1 or 2	0.01	0.03	0.00	0.01	(-0.05 0.07)	-0.01	0.03	0.00	-0.01	(-0.06 0.05)
=1 if NVQ level 3	0.00	0.04	0.00	0.00	(-0.06 0.08)	0.01	0.04	0.00	0.01	(-0.06 0.08)
=1 if overseas qual. only	0.11	0.10	0.00	0.11	(-0.08 0.29)	-0.10	0.10	0.00	-0.10	(-0.29 0.09)
=1 if none of these	-0.08	0.06	0.00	-0.08	(-0.21 0.03)	-0.04	0.06	0.00	-0.04	(-0.16 0.09)
<i>Mother's age at birth</i>										
=1 if less than 25 years	0.09	0.05	0.00	0.09	(-0.00 0.18)	0.03	0.05	0.00	0.03	(-0.07 0.13)
=1 if 25 to 29 years	-0.03	0.04	0.00	-0.03	(-0.11 0.06)	0.08	0.04	0.00	0.08	(0.01 0.16)
=1 if 30 to 34 years	-0.03	0.04	0.00	-0.03	(-0.09 0.04)	0.01	0.03	0.00	0.01	(-0.06 0.08)
<i>Child demography</i>										
=1 if female	-0.03	0.02	0.00	-0.03	(-0.07 0.02)	0.28	0.03	0.00	0.28	(0.22 0.32)
age (years)	-0.10	0.05	0.00	-0.10	(-0.19 0.00)	0.10	0.05	0.00	0.10	(0.01 0.20)
=1 if ethnicity is non-white	0.20	0.05	0.00	0.20	(0.09 0.30)	0.03	0.05	0.00	0.02	(-0.08 0.14)
<i>Child's health endowment</i>										
=1 if birth weight < 2500g	0.14	0.06	0.00	0.14	(0.03 0.25)	0.01	0.05	0.00	0.01	(-0.10 0.11)
<i>Size of household</i>										
log of hh size incl. cm	-0.03	0.07	0.00	-0.03	(-0.17 0.11)	-0.15	0.08	0.00	-0.16	(-0.31 -0.00)
<i>Number of older siblings</i>										
=1 if no older siblings	0.12	0.03	0.00	0.12	(0.06 0.18)	-0.01	0.03	0.00	-0.02	(-0.07 0.05)
=1 if two or more older siblings	0.10	0.04	0.00	0.10	(0.02 0.17)	-0.02	0.04	0.00	-0.01	(-0.09 0.06)
<i>Respondent's relationship to child</i>										
=1 if natural mother of child	-0.10	0.09	0.00	-0.10	(-0.27 0.08)	0.16	0.10	0.00	0.15	(-0.02 0.35)
<i>Country where interview took place</i>										
=1 if wales	-0.15	0.11	0.00	-0.15	(-0.36 0.08)	0.05	0.13	0.00	0.05	(-0.22 0.29)
=1 if nireland	-0.26	0.26	0.01	-0.26	(-0.77 0.25)	0.34	0.24	0.00	0.34	(-0.13 0.80)
=1 if scotland	0.06	0.14	0.00	0.06	(-0.22 0.34)	-0.15	0.14	0.00	-0.15	(-0.42 0.13)
Time and Care										
<i>Time mother spends with child</i>										
=1 if at least just enough	-0.06	0.02	0.00	-0.06	(-0.11 -0.01)	-0.01	0.03	0.00	-0.01	(-0.05 0.04)
<i>Childcare</i>										
=1 if formal childcare	-0.10	0.05	0.00	-0.10	(-0.19 0.00)	-0.02	0.05	0.00	-0.02	(-0.12 0.08)
=1 if informal/ other childcare	0.01	0.04	0.00	0.02	(-0.07 0.10)	-0.04	0.04	0.00	-0.04	(-0.12 0.04)
=1 if grandparent care	-0.03	0.03	0.00	-0.03	(-0.09 0.03)	0.00	0.03	0.00	0.00	(-0.06 0.06)
<i>Maternal employment ($t - 1$)</i>										
=1 if working part-time	-0.08	0.03	0.00	-0.08	(-0.14 -0.03)	0.05	0.03	0.00	0.05	(-0.01 0.10)
=1 if working full-time	-0.10	0.05	0.00	-0.10	(-0.21 0.00)	0.12	0.05	0.00	0.12	(0.01 0.22)
<i>How long mother breastfed child</i>										

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Table A.3.87 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	-0.09	0.03	0.00	-0.09	(-0.15 -0.03)	0.02	0.03	0.00	0.02	(-0.04 0.09)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.34	0.12	0.00	0.34	(0.11 0.57)	-0.15	0.12	0.00	-0.15	(-0.38 0.08)
=1 if mother tells child off	0.12	0.02	0.00	0.12	(0.08 0.17)	-0.32	0.03	0.00	-0.32	(-0.37 -0.27)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.25	0.04	0.00	-0.25	(-0.33 -0.17)	0.08	0.04	0.00	0.08	(-0.00 0.17)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.08	0.04	0.00	0.08	(0.01 0.15)	-0.06	0.03	0.00	-0.06	(-0.12 0.01)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.05	0.04	0.00	-0.05	(-0.13 0.03)	0.07	0.04	0.00	0.07	(-0.01 0.14)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.03	0.03	0.00	0.03	(-0.03 0.08)	0.10	0.03	0.00	0.10	(0.05 0.16)
<i>Maternal mental health</i>										
=1 if high distress	0.51	0.08	0.00	0.51	(0.36 0.67)	-0.19	0.07	0.00	-0.19	(-0.33 -0.05)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.06	0.03	0.00	0.06	(-0.00 0.12)	-0.07	0.03	0.00	-0.08	(-0.13 -0.02)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.03	0.03	0.00	-0.03	(-0.09 0.03)	-0.02	0.03	0.00	-0.02	(-0.08 0.04)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.09	0.05	0.00	0.09	(-0.02 0.19)	-0.11	0.05	0.00	-0.11	(-0.21 -0.01)
=1 if rented (housing association or private)/ other	0.10	0.04	0.00	0.10	(0.02 0.18)	0.01	0.04	0.00	0.01	(-0.07 0.09)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.23	0.05	0.00	-0.23	(-0.34 -0.13)	0.17	0.06	0.00	0.17	(0.05 0.27)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.09	0.05	0.00	0.09	(-0.01 0.20)	0.03	0.06	0.00	0.03	(-0.08 0.15)
=1 if managerial/ professional occupation	0.02	0.03	0.00	0.02	(-0.05 0.09)	0.01	0.03	0.00	0.01	(-0.05 0.08)
=1 if technical, semi-routine or routine occupation	0.05	0.03	0.00	0.05	(-0.01 0.11)	-0.01	0.03	0.00	-0.01	(-0.07 0.04)
=1 if can't remember or father died	-0.05	0.05	0.00	-0.05	(-0.15 0.06)	-0.07	0.05	0.00	-0.07	(-0.17 0.04)
constant	2.02	0.43	0.01	2.02	(1.16 2.85)	-1.00	0.40	0.01	-1.01	(-1.78 -0.20)
σ_ϵ	0.52	0.02	0.00	0.52	(0.48 0.58)	0.53	0.03	0.00	0.53	(0.49 0.60)
σ_ζ	0.85	0.02	0.00	0.85	(0.81 0.89)	0.86	0.02	0.00	0.86	(0.81 0.90)
$\rho_{\zeta\epsilon}$	-0.99	0.01	0.00	-1.00	(-1.00 -0.98)	0.99	0.01	0.00	1.00	(0.98 1.00)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.88: Bayesian Estimates: SDQ PR/ PB and # Chronic Conditions (Eq. 2, LP, Age 7)

	SDQ PR					SDQ PB					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.38	0.16	0.01	-0.38	(-0.70 -0.05)	-0.36	0.17	0.01	-0.36	(-0.69 -0.02)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	-0.16	0.17	0.00	-0.16	(-0.50 0.18)	-0.16	0.17	0.00	-0.16	(-0.50 0.18)	
=1 if NVQ level 3	-0.08	0.20	0.00	-0.08	(-0.47 0.30)	-0.08	0.20	0.00	-0.08	(-0.48 0.31)	
=1 if overseas qual. only	-0.49	0.44	0.00	-0.49	(-1.40 0.33)	-0.50	0.44	0.00	-0.49	(-1.40 0.34)	
=1 if none of these	-0.19	0.24	0.00	-0.19	(-0.66 0.26)	-0.19	0.24	0.00	-0.19	(-0.67 0.27)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	-0.09	0.24	0.00	-0.09	(-0.56 0.37)	-0.08	0.24	0.00	-0.08	(-0.56 0.39)	
=1 if 25 to 29 years	0.13	0.22	0.00	0.12	(-0.30 0.56)	0.12	0.22	0.00	0.12	(-0.31 0.56)	
=1 if 30 to 34 years	0.10	0.22	0.00	0.10	(-0.33 0.55)	0.10	0.22	0.00	0.10	(-0.33 0.54)	
<i>Child demography</i>											
=1 if female	-0.17	0.13	0.00	-0.17	(-0.42 0.08)	-0.17	0.13	0.00	-0.17	(-0.43 0.08)	
age (years)	-0.03	0.20	0.01	-0.03	(-0.42 0.37)	-0.04	0.20	0.01	-0.05	(-0.42 0.34)	
=1 if ethnicity is non-white	-0.50	0.26	0.00	-0.49	(-1.01 0.01)	-0.48	0.26	0.00	-0.48	(-1.00 0.02)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.31	0.23	0.00	0.32	(-0.14 0.76)	0.31	0.23	0.00	0.31	(-0.14 0.75)	
<i>Size of household</i>											
log of hh size incl. cm	-0.22	0.23	0.00	-0.22	(-0.68 0.23)	-0.24	0.24	0.00	-0.24	(-0.71 0.24)	
<i>Number of older siblings</i>											
=1 if no older siblings	-0.20	0.17	0.00	-0.20	(-0.53 0.12)	-0.21	0.17	0.00	-0.21	(-0.53 0.11)	
=1 if two or more older siblings	-0.00	0.20	0.00	-0.01	(-0.39 0.38)	0.00	0.19	0.00	0.00	(-0.38 0.39)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.68	0.49	0.02	0.67	(-0.25 1.72)	0.73	0.50	0.02	0.71	(-0.19 1.76)	
<i>Country where interview took place</i>											
=1 if wales	-0.06	0.48	0.01	-0.05	(-1.00 0.90)	-0.04	0.48	0.01	-0.05	(-0.99 0.92)	
=1 if nireland	-0.16	0.59	0.01	-0.16	(-1.32 0.99)	-0.16	0.59	0.01	-0.15	(-1.32 0.98)	
=1 if scotland	-0.54	0.51	0.01	-0.54	(-1.55 0.45)	-0.52	0.52	0.01	-0.51	(-1.54 0.50)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.24	0.14	0.00	-0.24	(-0.52 0.04)	-0.24	0.14	0.00	-0.24	(-0.52 0.04)	
<i>Childcare</i>											
=1 if formal childcare	0.00	0.29	0.00	0.01	(-0.57 0.56)	-0.00	0.29	0.00	0.00	(-0.59 0.54)	
=1 if informal/ other childcare	0.18	0.22	0.00	0.18	(-0.26 0.61)	0.18	0.22	0.00	0.18	(-0.26 0.61)	
=1 if grandparent care	0.15	0.16	0.00	0.15	(-0.17 0.46)	0.15	0.16	0.00	0.14	(-0.16 0.46)	
<i>Maternal employment (t - 1)</i>											
=1 if working part-time	0.03	0.16	0.00	0.03	(-0.28 0.34)	0.03	0.15	0.00	0.03	(-0.28 0.32)	
=1 if working full-time	-0.23	0.37	0.00	-0.22	(-0.97 0.45)	-0.24	0.36	0.00	-0.23	(-0.98 0.45)	
<i>How long mother breastfed child</i>											
=1 if at least 6 months	0.03	0.20	0.00	0.03	(-0.37 0.42)	0.03	0.20	0.00	0.03	(-0.38 0.42)	
<i>If child is naughty...</i>											

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Table A.3.88 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.76	0.36	0.00	0.76	(0.04 1.44)	0.74	0.36	0.00	0.74	(0.01 1.43)
=1 if mother tells child off	0.09	0.13	0.00	0.09	(-0.17 0.35)	0.09	0.13	0.00	0.09	(-0.16 0.36)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.02	0.19	0.00	-0.02	(-0.38 0.35)	-0.02	0.19	0.00	-0.03	(-0.38 0.35)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.13	0.16	0.00	0.13	(-0.20 0.44)	0.12	0.16	0.00	0.12	(-0.20 0.42)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	0.40	0.30	0.01	0.39	(-0.18 0.99)	0.41	0.30	0.01	0.40	(-0.16 1.03)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.74	0.14	0.00	0.74	(0.47 1.01)	0.74	0.13	0.00	0.73	(0.47 1.00)
<i>Maternal mental health</i>										
=1 if high distress	0.31	0.25	0.00	0.31	(-0.18 0.77)	0.31	0.25	0.00	0.32	(-0.18 0.78)
<i>Does mother currently smoke</i>										
=1 if currently smokes	-0.02	0.14	0.00	-0.02	(-0.29 0.24)	-0.03	0.13	0.00	-0.03	(-0.29 0.24)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.48	0.21	0.00	-0.47	(-0.90 -0.07)	-0.47	0.21	0.00	-0.47	(-0.89 -0.06)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.13	0.20	0.00	0.13	(-0.25 0.52)	0.13	0.20	0.00	0.13	(-0.25 0.52)
=1 if rented (housing association or private)/ other	-0.03	0.18	0.00	-0.03	(-0.40 0.33)	-0.02	0.18	0.00	-0.02	(-0.38 0.32)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.01	0.25	0.00	-0.02	(-0.49 0.48)	-0.02	0.25	0.00	-0.02	(-0.50 0.48)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	-0.02	0.22	0.00	-0.02	(-0.46 0.41)	-0.03	0.22	0.00	-0.03	(-0.47 0.40)
=1 if managerial/ professional occupation	-0.09	0.21	0.00	-0.09	(-0.49 0.31)	-0.09	0.21	0.00	-0.08	(-0.50 0.31)
=1 if technical, semi-routine or routine occupation	-0.10	0.16	0.00	-0.10	(-0.40 0.21)	-0.10	0.16	0.00	-0.10	(-0.40 0.21)
=1 if can't remember or father died	-0.08	0.24	0.00	-0.07	(-0.55 0.39)	-0.08	0.24	0.00	-0.08	(-0.56 0.38)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	0.27	0.20	0.00	0.27	(-0.12 0.65)	0.27	0.20	0.00	0.27	(-0.12 0.64)
constant	-0.18	0.89	0.05	-0.17	(-1.89 1.55)	-0.24	0.87	0.05	-0.23	(-1.96 1.43)
α	9.25	6.68	0.37	7.38	(2.89 26.59)	9.33	6.54	0.32	7.63	(2.82 25.85)
$\ln\alpha$	2.05	0.57	0.03	2.00	(1.06 3.28)	2.06	0.57	0.03	2.03	(1.04 3.25)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.89: Bayesian Estimates: SDQ PR/ PB and # Chronic Conditions (Eq. 2, TP, Age 7)

	SDQ PR					SDQ PB						
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI		
Standard Background Controls												
<i>Income</i>												
log of permanent family income (weekly, imp.)	-0.15	0.08	0.00	-0.15	(-0.30	0.00)	-0.18	0.07	0.00	-0.18	(-0.33	-0.03)
<i>Maternal education</i>												
=1 if NVQ level 1 or 2	-0.12	0.07	0.00	-0.12	(-0.27	0.03)	-0.12	0.07	0.00	-0.12	(-0.27	0.02)
=1 if NVQ level 3	-0.06	0.09	0.00	-0.06	(-0.23	0.11)	-0.08	0.09	0.00	-0.08	(-0.26	0.09)
=1 if overseas qual. only	0.13	0.21	0.00	0.14	(-0.29	0.53)	0.13	0.21	0.00	0.13	(-0.29	0.54)
=1 if none of these	-0.17	0.14	0.00	-0.17	(-0.45	0.10)	-0.20	0.14	0.00	-0.20	(-0.48	0.07)
<i>Mother's age at birth</i>												
=1 if less than 25 years	0.07	0.11	0.00	0.07	(-0.14	0.29)	0.12	0.11	0.00	0.12	(-0.10	0.34)
=1 if 25 to 29 years	0.14	0.09	0.00	0.14	(-0.04	0.32)	0.15	0.09	0.00	0.15	(-0.03	0.33)
=1 if 30 to 34 years	0.05	0.09	0.00	0.05	(-0.12	0.22)	0.06	0.09	0.00	0.06	(-0.10	0.24)
<i>Child demography</i>												
=1 if female	-0.33	0.06	0.00	-0.33	(-0.45	-0.22)	-0.24	0.06	0.00	-0.24	(-0.36	-0.13)
age (years)	0.15	0.10	0.01	0.15	(-0.04	0.37)	0.18	0.10	0.01	0.18	(-0.04	0.37)
=1 if ethnicity is non-white	-0.11	0.13	0.00	-0.11	(-0.38	0.15)	-0.02	0.13	0.00	-0.02	(-0.28	0.23)
<i>Child's health endowment</i>												
=1 if birth weight < 2500g	0.30	0.12	0.00	0.30	(0.06	0.54)	0.32	0.12	0.00	0.32	(0.09	0.56)
<i>Size of household</i>												
log of hh size incl. cm	-0.36	0.16	0.00	-0.36	(-0.67	-0.05)	-0.25	0.17	0.01	-0.25	(-0.58	0.07)
<i>Number of older siblings</i>												
=1 if no older siblings	-0.07	0.07	0.00	-0.06	(-0.21	0.08)	-0.02	0.07	0.00	-0.02	(-0.16	0.12)
=1 if two or more older siblings	-0.06	0.09	0.00	-0.06	(-0.25	0.12)	-0.07	0.09	0.00	-0.07	(-0.26	0.11)
<i>Respondent's relationship to child</i>												
=1 if natural mother of child	0.19	0.26	0.01	0.18	(-0.31	0.73)	0.02	0.26	0.01	0.01	(-0.47	0.56)
<i>Country where interview took place</i>												
=1 if wales	0.38	0.28	0.01	0.38	(-0.18	0.93)	0.47	0.28	0.01	0.47	(-0.08	1.01)
=1 if nireland	-0.06	0.45	0.01	-0.06	(-0.96	0.81)	-0.10	0.43	0.01	-0.09	(-0.94	0.73)
=1 if scotland	-0.55	0.29	0.01	-0.55	(-1.10	0.02)	-0.48	0.28	0.00	-0.47	(-1.04	0.06)
Time and Care												
<i>Time mother spends with child</i>												
=1 if at least just enough	-0.11	0.06	0.00	-0.11	(-0.22	0.01)	-0.09	0.06	0.00	-0.09	(-0.21	0.03)
<i>Childcare</i>												
=1 if formal childcare	0.04	0.12	0.00	0.04	(-0.21	0.28)	-0.05	0.13	0.00	-0.05	(-0.30	0.20)
=1 if informal/ other childcare	0.16	0.11	0.00	0.16	(-0.05	0.36)	0.07	0.10	0.00	0.07	(-0.14	0.27)
=1 if grandparent care	-0.05	0.07	0.00	-0.05	(-0.19	0.08)	-0.10	0.07	0.00	-0.10	(-0.23	0.03)
<i>Maternal employment (t - 1)</i>												
=1 if working part-time	-0.07	0.07	0.00	-0.07	(-0.19	0.06)	-0.03	0.06	0.00	-0.03	(-0.15	0.10)
=1 if working full-time	0.03	0.13	0.00	0.03	(-0.23	0.29)	0.04	0.13	0.00	0.04	(-0.23	0.30)
<i>How long mother breastfed child</i>												
=1 if at least 6 months	0.11	0.08	0.00	0.11	(-0.04	0.25)	0.07	0.08	0.00	0.07	(-0.07	0.23)
<i>If child is naughty...</i>												

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Table A.3.89 – continued from previous page

	SDQ PR						SDQ PB					
	mean	sd	se	med	95% CrI		mean	sd	se	med	95% CrI	
=1 if mother smacks child	-0.33	0.27	0.00	-0.32	(-0.88	0.17)	-0.29	0.27	0.00	-0.28	(-0.84	0.22)
=1 if mother tells child off	0.04	0.06	0.00	0.04	(-0.07	0.15)	0.10	0.06	0.00	0.09	(-0.02	0.21)
<i>Bedtime on term-time weekdays</i>												
=1 if regular bedtime	-0.17	0.09	0.00	-0.17	(-0.36	0.02)	-0.11	0.09	0.00	-0.11	(-0.29	0.08)
<i>Daily TV/ video consumption</i>												
=1 if more than 3 hours tv/ videos	0.15	0.08	0.00	0.15	(-0.00	0.31)	0.15	0.08	0.00	0.15	(-0.00	0.30)
<i>How often mother reads to the child</i>												
=1 if at least several times a week	0.02	0.14	0.00	0.02	(-0.24	0.29)	-0.03	0.14	0.00	-0.04	(-0.31	0.24)
Health and Health Related Behaviour												
<i>Maternal physical health</i>												
=1 if longstanding illness	0.56	0.06	0.00	0.56	(0.44	0.67)	0.54	0.06	0.00	0.54	(0.43	0.66)
<i>Maternal mental health</i>												
=1 if high distress	0.40	0.15	0.00	0.41	(0.10	0.69)	0.19	0.15	0.00	0.19	(-0.12	0.48)
<i>Does mother currently smoke</i>												
=1 if currently smokes	0.03	0.07	0.00	0.03	(-0.11	0.17)	0.04	0.07	0.00	0.04	(-0.09	0.18)
<i>How often mother drinks alcohol</i>												
=1 if at least 3 times a week	-0.12	0.07	0.00	-0.12	(-0.27	0.02)	-0.12	0.07	0.00	-0.12	(-0.27	0.02)
Other												
<i>Housing tenure</i>												
=1 if council rented	-0.10	0.12	0.00	-0.10	(-0.34	0.13)	-0.14	0.12	0.00	-0.14	(-0.37	0.08)
=1 if rented (housing association or private)/ other	-0.04	0.10	0.00	-0.04	(-0.23	0.15)	-0.00	0.09	0.00	-0.00	(-0.19	0.18)
<i>Child's fruit consumption</i>												
=1 if cm has at least one portion of fruit per day	-0.15	0.14	0.00	-0.15	(-0.41	0.13)	-0.16	0.14	0.00	-0.16	(-0.43	0.12)
<i>Maternal grandfathers' SES when respondent was aged 14</i>												
=1 if was not working	0.18	0.12	0.00	0.18	(-0.06	0.42)	0.19	0.13	0.00	0.19	(-0.06	0.44)
=1 if managerial/ professional occupation	-0.03	0.08	0.00	-0.03	(-0.19	0.14)	-0.02	0.08	0.00	-0.02	(-0.19	0.14)
=1 if technical, semi-routine or routine occupation	0.07	0.07	0.00	0.06	(-0.08	0.20)	0.10	0.07	0.00	0.10	(-0.04	0.24)
=1 if can't remember or father died	0.09	0.13	0.00	0.10	(-0.16	0.33)	0.04	0.13	0.00	0.05	(-0.20	0.29)
<i>Problems with damp on the wall</i>												
=1 if at least some problems	0.30	0.10	0.00	0.30	(0.09	0.50)	0.29	0.11	0.00	0.29	(0.08	0.50)
constant	-1.14	0.66	0.06	-1.15	(-2.47	0.12)	-1.19	0.66	0.06	-1.19	(-2.56	0.08)
α	39.53	24.95	2.47	33.48	(14.74	100.90)	33.08	16.25	1.36	28.75	(12.57	73.33)
$\ln\alpha$	3.54	0.49	0.05	3.51	(2.69	4.61)	3.39	0.46	0.04	3.36	(2.53	4.30)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.90: Bayesian Estimates: SDQ ES/ CP and # Hospital Admissions (Eq. 1, LP, Age 7)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
number of hospital admissions	0.02	0.06	0.00	0.03	(-0.10 0.13)	0.02	0.06	0.00	0.01	(-0.09 0.14)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.06	0.07	0.00	-0.07	(-0.19 0.07)	-0.02	0.06	0.00	-0.02	(-0.14 0.10)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.10	0.07	0.00	0.10	(-0.03 0.23)	0.13	0.06	0.00	0.13	(0.01 0.25)	
=1 if NVQ level 3	-0.02	0.08	0.00	-0.02	(-0.17 0.13)	0.08	0.07	0.00	0.08	(-0.06 0.23)	
=1 if overseas qual. only	0.25	0.17	0.00	0.25	(-0.09 0.58)	0.24	0.16	0.00	0.24	(-0.08 0.55)	
=1 if none of these	0.16	0.10	0.00	0.16	(-0.03 0.35)	0.33	0.09	0.00	0.33	(0.16 0.51)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	-0.12	0.10	0.00	-0.12	(-0.31 0.07)	0.27	0.09	0.00	0.27	(0.09 0.45)	
=1 if 25 to 29 years	-0.01	0.09	0.00	-0.01	(-0.18 0.17)	0.19	0.08	0.00	0.19	(0.03 0.36)	
=1 if 30 to 34 years	-0.05	0.09	0.00	-0.05	(-0.22 0.13)	0.08	0.08	0.00	0.08	(-0.08 0.25)	
<i>Child demography</i>											
=1 if female	0.12	0.05	0.00	0.12	(0.02 0.22)	-0.15	0.05	0.00	-0.15	(-0.24 -0.06)	
age (years)	-0.00	0.08	0.00	-0.00	(-0.16 0.15)	-0.16	0.08	0.00	-0.16	(-0.31 -0.00)	
=1 if ethnicity is non-white	-0.04	0.09	0.00	-0.04	(-0.22 0.14)	-0.07	0.09	0.00	-0.07	(-0.24 0.10)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.03	0.10	0.00	0.03	(-0.16 0.23)	0.29	0.09	0.00	0.29	(0.11 0.46)	
<i>Size of household</i>											
log of hh size incl. cm	0.17	0.10	0.00	0.17	(-0.03 0.36)	0.22	0.09	0.00	0.22	(0.04 0.40)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.14	0.06	0.00	0.14	(0.01 0.26)	-0.01	0.06	0.00	-0.01	(-0.13 0.11)	
=1 if two or more older siblings	-0.11	0.08	0.00	-0.11	(-0.26 0.05)	-0.05	0.07	0.00	-0.05	(-0.19 0.09)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.09	0.15	0.00	0.09	(-0.21 0.39)	-0.01	0.14	0.00	-0.01	(-0.28 0.27)	
<i>Country where interview took place</i>											
=1 if wales	0.40	0.26	0.00	0.40	(-0.11 0.90)	-0.05	0.25	0.00	-0.05	(-0.53 0.43)	
=1 if nireland	0.40	0.50	0.00	0.40	(-0.59 1.39)	0.81	0.48	0.00	0.82	(-0.14 1.75)	
=1 if scotland	-0.19	0.30	0.00	-0.19	(-0.77 0.41)	0.10	0.29	0.00	0.10	(-0.47 0.66)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.11	0.05	0.00	-0.11	(-0.22 -0.00)	-0.06	0.05	0.00	-0.06	(-0.16 0.04)	
<i>Childcare</i>											
=1 if formal childcare	0.32	0.10	0.00	0.32	(0.12 0.53)	0.13	0.10	0.00	0.13	(-0.06 0.32)	
=1 if informal/ other childcare	0.09	0.08	0.00	0.09	(-0.07 0.24)	0.12	0.07	0.00	0.12	(-0.03 0.26)	
=1 if grandparent care	0.07	0.06	0.00	0.07	(-0.06 0.19)	-0.03	0.06	0.00	-0.03	(-0.15 0.08)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.17	0.06	0.00	-0.17	(-0.29 -0.05)	-0.02	0.06	0.00	-0.02	(-0.14 0.09)	
=1 if working full-time	-0.10	0.12	0.00	-0.10	(-0.34 0.13)	0.01	0.11	0.00	0.01	(-0.21 0.23)	
<i>How long mother breastfed child</i>											

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Table A.3.90 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.10	0.08	0.00	0.10	(-0.05 0.25)	-0.04	0.07	0.00	-0.04	(-0.19 0.10)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.35	0.22	0.00	0.35	(-0.07 0.78)	1.04	0.20	0.00	1.04	(0.64 1.44)
=1 if mother tells child off	0.22	0.05	0.00	0.22	(0.13 0.32)	0.62	0.05	0.00	0.62	(0.53 0.71)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.15	0.08	0.00	-0.15	(-0.31 0.00)	-0.18	0.07	0.00	-0.18	(-0.33 -0.03)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.03	0.06	0.00	0.03	(-0.10 0.16)	0.02	0.06	0.00	0.02	(-0.11 0.14)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	0.00	0.08	0.00	0.00	(-0.16 0.16)	-0.19	0.07	0.00	-0.19	(-0.34 -0.05)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.10	0.06	0.00	0.10	(-0.01 0.21)	0.11	0.05	0.00	0.11	(0.01 0.21)
<i>Maternal mental health</i>										
=1 if high distress	0.73	0.10	0.00	0.73	(0.53 0.94)	0.30	0.10	0.00	0.30	(0.11 0.50)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.00	0.05	0.00	0.00	(-0.10 0.11)	0.07	0.05	0.00	0.07	(-0.03 0.16)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	0.02	0.07	0.00	0.02	(-0.12 0.15)	0.09	0.07	0.00	0.10	(-0.03 0.22)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.16	0.08	0.00	0.16	(0.00 0.31)	0.14	0.07	0.00	0.14	(-0.00 0.29)
=1 if rented (housing association or private)/ other	0.07	0.07	0.00	0.07	(-0.06 0.21)	0.03	0.06	0.00	0.03	(-0.10 0.16)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.15	0.10	0.00	-0.15	(-0.35 0.04)	-0.04	0.09	0.00	-0.04	(-0.22 0.14)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.06	0.09	0.00	0.06	(-0.11 0.24)	0.00	0.08	0.00	0.00	(-0.16 0.17)
=1 if managerial/ professional occupation	0.00	0.08	0.00	0.00	(-0.16 0.16)	0.00	0.07	0.00	0.00	(-0.14 0.15)
=1 if technical, semi-routine or routine occupation	-0.04	0.06	0.00	-0.04	(-0.15 0.08)	-0.03	0.06	0.00	-0.03	(-0.14 0.08)
=1 if can't remember or father died	-0.03	0.10	0.00	-0.03	(-0.22 0.16)	0.01	0.09	0.00	0.01	(-0.16 0.18)
constant	0.06	0.65	0.01	0.06	(-1.20 1.36)	0.68	0.63	0.01	0.68	(-0.57 1.93)
σ_ϵ	0.94	0.03	0.00	0.95	(0.86 0.99)	0.88	0.03	0.00	0.88	(0.81 0.92)
σ_ζ	0.16	0.11	0.02	0.12	(0.02 0.43)	0.15	0.10	0.01	0.14	(0.01 0.37)
$\rho_{\zeta\xi}$	0.26	0.53	0.05	0.37	(-0.93 0.96)	-0.32	0.47	0.03	-0.41	(-0.94 0.71)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.91: Bayesian Estimates: SDQ ES/ CP and # Hospital Admissions (Eq. 1, TP, Age 7)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
number of hospital admissions	0.05	0.03	0.00	0.05	(-0.02 0.11)	0.06	0.04	0.00	0.06	(-0.02 0.14)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.14	0.03	0.00	-0.14	(-0.21 -0.08)	-0.18	0.03	0.00	-0.18	(-0.24 -0.12)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.00	0.03	0.00	0.00	(-0.06 0.06)	0.06	0.03	0.00	0.06	(0.00 0.11)	
=1 if NVQ level 3	-0.02	0.03	0.00	-0.02	(-0.09 0.04)	0.02	0.03	0.00	0.02	(-0.05 0.08)	
=1 if overseas qual. only	0.09	0.10	0.00	0.09	(-0.11 0.28)	0.19	0.09	0.00	0.19	(0.01 0.37)	
=1 if none of these	0.01	0.06	0.00	0.01	(-0.11 0.13)	0.03	0.06	0.00	0.03	(-0.08 0.14)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	0.07	0.05	0.00	0.07	(-0.03 0.16)	0.16	0.04	0.00	0.16	(0.07 0.24)	
=1 if 25 to 29 years	0.05	0.04	0.00	0.05	(-0.02 0.12)	0.01	0.03	0.00	0.01	(-0.06 0.08)	
=1 if 30 to 34 years	0.01	0.03	0.00	0.01	(-0.06 0.07)	0.00	0.03	0.00	0.00	(-0.06 0.06)	
<i>Child demography</i>											
=1 if female	0.07	0.02	0.00	0.07	(0.03 0.12)	-0.14	0.02	0.00	-0.14	(-0.18 -0.10)	
age (years)	0.00	0.05	0.00	0.00	(-0.08 0.09)	0.01	0.04	0.00	0.01	(-0.07 0.09)	
=1 if ethnicity is non-white	-0.07	0.05	0.00	-0.07	(-0.18 0.04)	-0.13	0.05	0.00	-0.13	(-0.23 -0.03)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.13	0.05	0.00	0.13	(0.02 0.23)	0.10	0.05	0.00	0.10	(0.00 0.20)	
<i>Size of household</i>											
log of hh size incl. cm	0.21	0.07	0.00	0.21	(0.07 0.36)	0.13	0.07	0.00	0.13	(-0.00 0.27)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.07	0.03	0.00	0.07	(0.02 0.12)	-0.11	0.03	0.00	-0.11	(-0.16 -0.06)	
=1 if two or more older siblings	-0.12	0.04	0.00	-0.12	(-0.20 -0.05)	-0.06	0.03	0.00	-0.06	(-0.13 0.01)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	-0.03	0.09	0.00	-0.03	(-0.23 0.15)	0.17	0.09	0.00	0.17	(-0.01 0.34)	
<i>Country where interview took place</i>											
=1 if wales	-0.23	0.12	0.00	-0.23	(-0.46 0.00)	-0.10	0.11	0.00	-0.10	(-0.31 0.11)	
=1 if nireland	-0.08	0.25	0.00	-0.08	(-0.57 0.41)	-0.36	0.24	0.00	-0.36	(-0.83 0.10)	
=1 if scotland	0.00	0.14	0.00	0.00	(-0.28 0.28)	-0.01	0.13	0.00	-0.00	(-0.27 0.26)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.13	0.03	0.00	-0.13	(-0.18 -0.08)	-0.09	0.02	0.00	-0.09	(-0.13 -0.04)	
<i>Childcare</i>											
=1 if formal childcare	-0.00	0.05	0.00	-0.00	(-0.11 0.10)	0.01	0.05	0.00	0.01	(-0.09 0.10)	
=1 if informal/ other childcare	-0.01	0.04	0.00	-0.01	(-0.09 0.07)	0.01	0.04	0.00	0.01	(-0.07 0.08)	
=1 if grandparent care	-0.02	0.03	0.00	-0.02	(-0.08 0.04)	-0.02	0.03	0.00	-0.02	(-0.08 0.03)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.09	0.03	0.00	-0.09	(-0.14 -0.04)	-0.05	0.03	0.00	-0.05	(-0.10 0.00)	
=1 if working full-time	-0.12	0.06	0.00	-0.12	(-0.23 -0.01)	-0.03	0.05	0.00	-0.03	(-0.13 0.07)	
<i>How long mother breastfed child</i>											

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Table A.3.91 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	-0.03	0.03	0.00	-0.03	(-0.09 0.03)	-0.10	0.03	0.00	-0.10	(-0.16 -0.05)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.13	0.13	0.00	0.13	(-0.12 0.39)	0.70	0.12	0.00	0.70	(0.47 0.93)
=1 if mother tells child off	0.21	0.02	0.00	0.21	(0.16 0.26)	0.59	0.02	0.00	0.59	(0.55 0.63)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.19	0.04	0.00	-0.19	(-0.28 -0.10)	-0.24	0.04	0.00	-0.24	(-0.32 -0.16)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.13	0.03	0.00	0.13	(0.07 0.20)	0.06	0.03	0.00	0.06	(-0.00 0.12)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	0.06	0.04	0.00	0.06	(-0.02 0.14)	-0.07	0.04	0.00	-0.07	(-0.15 -0.00)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.18	0.03	0.00	0.18	(0.13 0.24)	0.08	0.03	0.00	0.08	(0.03 0.13)
<i>Maternal mental health</i>										
=1 if high distress	0.72	0.08	0.00	0.72	(0.57 0.87)	0.54	0.07	0.00	0.54	(0.40 0.68)
<i>Does mother currently smoke</i>										
=1 if currently smokes	-0.01	0.03	0.00	-0.01	(-0.07 0.06)	0.14	0.03	0.00	0.14	(0.09 0.20)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.05	0.03	0.00	-0.05	(-0.11 0.01)	-0.02	0.03	0.00	-0.02	(-0.08 0.03)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.09	0.05	0.00	0.09	(-0.01 0.19)	0.22	0.05	0.00	0.22	(0.13 0.32)
=1 if rented (housing association or private)/ other	0.07	0.04	0.00	0.07	(-0.01 0.16)	0.11	0.04	0.00	0.11	(0.03 0.18)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.16	0.06	0.00	-0.16	(-0.27 -0.04)	-0.14	0.05	0.00	-0.14	(-0.24 -0.03)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.10	0.05	0.00	0.10	(-0.00 0.20)	0.11	0.05	0.00	0.11	(0.02 0.21)
=1 if managerial/ professional occupation	0.05	0.03	0.00	0.05	(-0.02 0.11)	-0.02	0.03	0.00	-0.03	(-0.08 0.03)
=1 if technical, semi-routine or routine occupation	0.03	0.03	0.00	0.03	(-0.03 0.08)	0.00	0.03	0.00	0.00	(-0.05 0.06)
=1 if can't remember or father died	-0.01	0.05	0.00	-0.01	(-0.11 0.10)	0.12	0.05	0.00	0.12	(0.03 0.22)
constant	0.72	0.41	0.00	0.72	(-0.07 1.52)	0.88	0.38	0.00	0.88	(0.13 1.64)
σ_ϵ	0.95	0.02	0.00	0.96	(0.89 0.98)	0.88	0.02	0.00	0.88	(0.84 0.91)
σ_ζ	0.12	0.08	0.02	0.09	(0.04 0.37)	0.15	0.07	0.02	0.15	(0.05 0.31)
$\rho_{\zeta\xi}$	0.07	0.44	0.06	0.06	(-0.69 0.87)	-0.06	0.47	0.07	-0.13	(-0.78 0.89)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.92: Bayesian Estimates: SDQ ES/ CP and # Hospital Admissions (Eq. 2, LP, Age 7)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.06	0.23	0.01	-0.06	(-0.47 0.39)	-0.05	0.22	0.01	-0.05	(-0.48 0.38)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.03	0.24	0.00	0.03	(-0.43 0.49)	0.03	0.23	0.00	0.03	(-0.42 0.48)	
=1 if NVQ level 3	0.13	0.27	0.00	0.13	(-0.40 0.65)	0.13	0.27	0.00	0.13	(-0.40 0.66)	
=1 if overseas qual. only	-0.25	0.55	0.01	-0.23	(-1.38 0.80)	-0.23	0.55	0.01	-0.21	(-1.35 0.80)	
=1 if none of these	0.46	0.31	0.00	0.46	(-0.14 1.06)	0.46	0.31	0.00	0.46	(-0.14 1.06)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	-0.17	0.32	0.00	-0.17	(-0.80 0.45)	-0.17	0.32	0.00	-0.18	(-0.79 0.47)	
=1 if 25 to 29 years	-0.25	0.29	0.00	-0.25	(-0.82 0.33)	-0.25	0.30	0.00	-0.25	(-0.82 0.33)	
=1 if 30 to 34 years	-0.34	0.31	0.00	-0.35	(-0.94 0.27)	-0.34	0.30	0.00	-0.33	(-0.93 0.27)	
<i>Child demography</i>											
=1 if female	-0.13	0.18	0.00	-0.13	(-0.47 0.21)	-0.12	0.18	0.00	-0.12	(-0.47 0.22)	
age (years)	-0.39	0.25	0.02	-0.39	(-0.89 0.07)	-0.42	0.25	0.02	-0.42	(-0.88 0.06)	
=1 if ethnicity is non-white	0.03	0.32	0.00	0.03	(-0.61 0.64)	0.03	0.32	0.00	0.03	(-0.60 0.65)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	-0.10	0.33	0.00	-0.10	(-0.76 0.55)	-0.11	0.34	0.00	-0.10	(-0.78 0.55)	
<i>Size of household</i>											
log of hh size incl. cm	-0.23	0.31	0.01	-0.23	(-0.86 0.37)	-0.23	0.32	0.01	-0.23	(-0.87 0.40)	
<i>Number of older siblings</i>											
=1 if no older siblings	-0.10	0.22	0.00	-0.10	(-0.53 0.33)	-0.10	0.22	0.00	-0.10	(-0.54 0.34)	
=1 if two or more older siblings	-0.37	0.28	0.00	-0.36	(-0.92 0.18)	-0.37	0.28	0.00	-0.37	(-0.91 0.18)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.17	0.59	0.02	0.14	(-0.92 1.39)	0.19	0.60	0.02	0.17	(-0.93 1.43)	
<i>Country where interview took place</i>											
=1 if wales	0.24	0.55	0.01	0.24	(-0.82 1.31)	0.28	0.55	0.01	0.28	(-0.79 1.36)	
=1 if nireland	-0.16	0.62	0.01	-0.17	(-1.34 1.08)	-0.17	0.62	0.01	-0.17	(-1.38 1.04)	
=1 if scotland	-0.28	0.58	0.01	-0.28	(-1.42 0.84)	-0.28	0.59	0.01	-0.27	(-1.44 0.87)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.05	0.20	0.00	-0.05	(-0.43 0.34)	-0.06	0.19	0.00	-0.06	(-0.43 0.33)	
<i>Childcare</i>											
=1 if formal childcare	0.05	0.39	0.00	0.05	(-0.75 0.79)	0.05	0.39	0.00	0.06	(-0.74 0.80)	
=1 if informal/ other childcare	0.41	0.30	0.00	0.41	(-0.17 0.99)	0.41	0.30	0.00	0.41	(-0.19 0.98)	
=1 if grandparent care	0.40	0.21	0.00	0.40	(-0.02 0.81)	0.40	0.21	0.00	0.40	(-0.01 0.81)	
<i>Maternal employment (t - 1)</i>											
=1 if working part-time	-0.17	0.21	0.00	-0.17	(-0.59 0.24)	-0.18	0.21	0.00	-0.18	(-0.60 0.22)	
=1 if working full-time	-0.62	0.48	0.01	-0.61	(-1.59 0.30)	-0.64	0.48	0.01	-0.64	(-1.60 0.30)	
<i>How long mother breastfed child</i>											
=1 if at least 6 months	-0.27	0.30	0.00	-0.27	(-0.88 0.30)	-0.27	0.30	0.00	-0.26	(-0.88 0.31)	
<i>If child is naughty...</i>											

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Table A.3.92 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.10	0.53	0.01	-0.09	(-1.16 0.91)	-0.04	0.52	0.01	-0.03	(-1.10 0.93)
=1 if mother tells child off	0.28	0.19	0.00	0.27	(-0.09 0.64)	0.28	0.18	0.00	0.28	(-0.08 0.65)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	0.15	0.26	0.00	0.15	(-0.36 0.66)	0.15	0.26	0.00	0.14	(-0.36 0.67)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	-0.35	0.24	0.00	-0.35	(-0.82 0.11)	-0.33	0.23	0.00	-0.33	(-0.80 0.13)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	0.20	0.37	0.01	0.20	(-0.52 0.95)	0.19	0.38	0.01	0.19	(-0.55 0.95)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.25	0.20	0.00	0.25	(-0.14 0.64)	0.25	0.20	0.00	0.25	(-0.14 0.62)
<i>Maternal mental health</i>										
=1 if high distress	-0.22	0.40	0.00	-0.21	(-1.02 0.54)	-0.19	0.40	0.00	-0.18	(-0.98 0.57)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.02	0.19	0.00	0.02	(-0.35 0.38)	0.02	0.19	0.00	0.02	(-0.35 0.38)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.42	0.29	0.00	-0.41	(-1.02 0.14)	-0.43	0.29	0.00	-0.42	(-1.01 0.12)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.29	0.26	0.00	0.29	(-0.22 0.80)	0.28	0.26	0.00	0.29	(-0.22 0.80)
=1 if rented (housing association or private)/ other	-0.14	0.25	0.00	-0.14	(-0.63 0.35)	-0.14	0.25	0.00	-0.14	(-0.63 0.37)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.46	0.32	0.01	-0.46	(-1.07 0.17)	-0.47	0.31	0.01	-0.47	(-1.09 0.15)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.11	0.30	0.00	0.10	(-0.48 0.69)	0.10	0.30	0.00	0.10	(-0.48 0.68)
=1 if managerial/ professional occupation	0.10	0.29	0.00	0.10	(-0.46 0.67)	0.11	0.29	0.00	0.11	(-0.46 0.68)
=1 if technical, semi-routine or routine occupation	0.43	0.21	0.00	0.43	(0.02 0.85)	0.43	0.21	0.00	0.43	(0.02 0.85)
=1 if can't remember or father died	-0.37	0.36	0.00	-0.37	(-1.09 0.31)	-0.38	0.36	0.00	-0.38	(-1.10 0.31)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	0.04	0.28	0.00	0.04	(-0.53 0.58)	0.04	0.28	0.00	0.04	(-0.53 0.58)
constant	0.17	0.94	0.05	0.18	(-1.67 2.01)	0.32	0.94	0.05	0.35	(-1.56 2.22)
α	0.74	0.29	0.01	0.68	(0.38 1.45)	0.77	0.34	0.01	0.70	(0.39 1.54)
$\ln\alpha$	-0.37	0.34	0.01	-0.39	(-0.97 0.37)	-0.33	0.35	0.01	-0.36	(-0.94 0.43)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.93: Bayesian Estimates: SDQ ES/ CP and # Hospital Admissions (Eq. 2, TP, Age 7)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.13	0.10	0.01	-0.13	(-0.33 0.07)	-0.13	0.10	0.01	-0.13	(-0.33 0.08)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.01	0.10	0.00	0.01	(-0.19 0.21)	0.02	0.10	0.00	0.02	(-0.19 0.22)	
=1 if NVQ level 3	-0.21	0.12	0.00	-0.21	(-0.45 0.03)	-0.21	0.12	0.00	-0.21	(-0.46 0.03)	
=1 if overseas qual. only	0.73	0.27	0.00	0.73	(0.19 1.25)	0.72	0.27	0.00	0.73	(0.18 1.24)	
=1 if none of these	-0.10	0.19	0.00	-0.10	(-0.48 0.27)	-0.10	0.19	0.00	-0.10	(-0.48 0.27)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	0.05	0.16	0.00	0.05	(-0.25 0.35)	0.05	0.15	0.00	0.05	(-0.25 0.35)	
=1 if 25 to 29 years	0.10	0.13	0.00	0.11	(-0.14 0.35)	0.10	0.12	0.00	0.10	(-0.14 0.35)	
=1 if 30 to 34 years	0.00	0.12	0.00	0.00	(-0.23 0.24)	0.00	0.12	0.00	0.00	(-0.23 0.23)	
<i>Child demography</i>											
=1 if female	-0.48	0.08	0.00	-0.48	(-0.64 -0.32)	-0.48	0.08	0.00	-0.48	(-0.64 -0.32)	
age (years)	-0.27	0.14	0.01	-0.28	(-0.55 0.01)	-0.23	0.13	0.01	-0.23	(-0.51 0.03)	
=1 if ethnicity is non-white	-0.01	0.18	0.00	-0.01	(-0.37 0.35)	-0.01	0.18	0.00	-0.01	(-0.38 0.34)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.07	0.18	0.00	0.07	(-0.28 0.41)	0.07	0.17	0.00	0.07	(-0.27 0.41)	
<i>Size of household</i>											
log of hh size incl. cm	-0.22	0.22	0.01	-0.21	(-0.66 0.22)	-0.21	0.23	0.01	-0.21	(-0.64 0.23)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.04	0.10	0.00	0.04	(-0.15 0.23)	0.04	0.10	0.00	0.04	(-0.16 0.23)	
=1 if two or more older siblings	0.05	0.13	0.00	0.05	(-0.20 0.29)	0.05	0.13	0.00	0.05	(-0.20 0.29)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.33	0.34	0.01	0.32	(-0.32 1.00)	0.32	0.35	0.01	0.31	(-0.34 1.03)	
<i>Country where interview took place</i>											
=1 if wales	0.37	0.36	0.01	0.37	(-0.34 1.08)	0.37	0.36	0.01	0.37	(-0.33 1.07)	
=1 if nireland	0.50	0.51	0.01	0.50	(-0.48 1.49)	0.51	0.50	0.01	0.51	(-0.45 1.50)	
=1 if scotland	0.24	0.39	0.01	0.23	(-0.51 1.01)	0.23	0.39	0.01	0.23	(-0.54 1.01)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	0.15	0.09	0.00	0.15	(-0.02 0.33)	0.15	0.09	0.00	0.15	(-0.02 0.33)	
<i>Childcare</i>											
=1 if formal childcare	-0.47	0.21	0.00	-0.47	(-0.90 -0.07)	-0.47	0.21	0.00	-0.47	(-0.88 -0.07)	
=1 if informal/ other childcare	-0.04	0.16	0.00	-0.04	(-0.35 0.27)	-0.04	0.16	0.00	-0.04	(-0.36 0.26)	
=1 if grandparent care	-0.03	0.10	0.00	-0.03	(-0.23 0.15)	-0.03	0.10	0.00	-0.03	(-0.23 0.16)	
<i>Maternal employment (t - 1)</i>											
=1 if working part-time	0.04	0.09	0.00	0.04	(-0.15 0.22)	0.04	0.09	0.00	0.04	(-0.14 0.23)	
=1 if working full-time	0.16	0.19	0.00	0.16	(-0.22 0.52)	0.16	0.19	0.00	0.16	(-0.22 0.54)	
<i>How long mother breastfed child</i>											
=1 if at least 6 months	-0.13	0.11	0.00	-0.13	(-0.35 0.09)	-0.13	0.11	0.00	-0.12	(-0.34 0.09)	
<i>If child is naughty...</i>											

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Table A.3.93 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.32	0.30	0.00	0.33	(-0.27 0.89)	0.33	0.30	0.00	0.33	(-0.26 0.90)
=1 if mother tells child off	-0.07	0.08	0.00	-0.07	(-0.24 0.09)	-0.07	0.08	0.00	-0.07	(-0.23 0.10)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.21	0.14	0.00	-0.21	(-0.48 0.07)	-0.21	0.14	0.00	-0.21	(-0.48 0.07)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	-0.06	0.12	0.00	-0.06	(-0.30 0.17)	-0.06	0.12	0.00	-0.06	(-0.29 0.16)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.17	0.19	0.00	-0.17	(-0.53 0.20)	-0.18	0.19	0.00	-0.18	(-0.54 0.19)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.40	0.09	0.00	0.40	(0.22 0.57)	0.40	0.09	0.00	0.40	(0.22 0.57)
<i>Maternal mental health</i>										
=1 if high distress	-0.11	0.26	0.00	-0.11	(-0.62 0.38)	-0.11	0.26	0.00	-0.10	(-0.62 0.39)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.21	0.10	0.00	0.21	(0.01 0.40)	0.21	0.10	0.00	0.21	(0.01 0.40)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.03	0.11	0.00	-0.03	(-0.23 0.18)	-0.03	0.11	0.00	-0.03	(-0.24 0.17)
Other										
<i>Housing tenure</i>										
=1 if council rented	-0.30	0.16	0.00	-0.29	(-0.62 0.02)	-0.29	0.17	0.00	-0.29	(-0.62 0.03)
=1 if rented (housing association or private)/ other	-0.18	0.14	0.00	-0.18	(-0.46 0.09)	-0.18	0.14	0.00	-0.18	(-0.46 0.09)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.06	0.21	0.00	-0.06	(-0.47 0.35)	-0.06	0.21	0.00	-0.06	(-0.46 0.35)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.17	0.17	0.00	0.17	(-0.16 0.49)	0.16	0.16	0.00	0.17	(-0.16 0.48)
=1 if managerial/ professional occupation	-0.11	0.11	0.00	-0.11	(-0.34 0.11)	-0.11	0.12	0.00	-0.11	(-0.34 0.11)
=1 if technical, semi-routine or routine occupation	-0.08	0.10	0.00	-0.08	(-0.27 0.11)	-0.08	0.10	0.00	-0.08	(-0.27 0.11)
=1 if can't remember or father died	-0.09	0.18	0.00	-0.09	(-0.44 0.25)	-0.09	0.18	0.00	-0.09	(-0.45 0.25)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	0.18	0.17	0.00	0.18	(-0.16 0.53)	0.18	0.17	0.00	0.18	(-0.16 0.50)
constant	0.14	0.74	0.06	0.16	(-1.28 1.59)	-0.01	0.80	0.07	-0.00	(-1.59 1.59)
α	0.86	0.16	0.01	0.84	(0.61 1.24)	0.86	0.16	0.01	0.84	(0.60 1.21)
$\ln\alpha$	-0.16	0.18	0.01	-0.17	(-0.50 0.22)	-0.17	0.18	0.01	-0.18	(-0.51 0.19)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.94: Bayesian Estimates: SDQ PR/ PB and # Hospital Admissions (Eq. 1, LP, Age 7)

	SDQ PR					SDQ PB					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
number of hospital admissions	-0.01	0.07	0.00	-0.00	(-0.14 0.12)	-0.02	0.06	0.00	-0.01	(-0.14 0.10)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.09	0.06	0.00	-0.09	(-0.22 0.04)	-0.09	0.07	0.00	-0.09	(-0.22 0.04)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.12	0.07	0.00	0.12	(-0.01 0.25)	-0.10	0.07	0.00	-0.10	(-0.23 0.04)	
=1 if NVQ level 3	0.02	0.08	0.00	0.02	(-0.13 0.17)	0.05	0.08	0.00	0.05	(-0.11 0.20)	
=1 if overseas qual. only	0.33	0.17	0.00	0.33	(-0.01 0.67)	-0.18	0.18	0.00	-0.18	(-0.53 0.16)	
=1 if none of these	0.29	0.10	0.00	0.29	(0.09 0.48)	-0.14	0.10	0.00	-0.14	(-0.33 0.06)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	-0.08	0.10	0.00	-0.08	(-0.27 0.11)	0.04	0.10	0.00	0.04	(-0.15 0.23)	
=1 if 25 to 29 years	-0.06	0.09	0.00	-0.06	(-0.24 0.12)	0.08	0.09	0.00	0.08	(-0.10 0.25)	
=1 if 30 to 34 years	-0.06	0.09	0.00	-0.06	(-0.23 0.12)	0.03	0.09	0.00	0.02	(-0.15 0.20)	
<i>Child demography</i>											
=1 if female	-0.08	0.05	0.00	-0.08	(-0.18 0.02)	0.33	0.05	0.00	0.33	(0.23 0.42)	
age (years)	-0.01	0.08	0.00	-0.00	(-0.17 0.16)	0.10	0.08	0.00	0.10	(-0.06 0.27)	
=1 if ethnicity is non-white	0.10	0.09	0.00	0.10	(-0.09 0.28)	0.08	0.09	0.00	0.08	(-0.10 0.27)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.16	0.10	0.00	0.16	(-0.04 0.35)	-0.04	0.10	0.00	-0.04	(-0.23 0.16)	
<i>Size of household</i>											
log of hh size incl. cm	-0.09	0.10	0.00	-0.09	(-0.29 0.11)	-0.29	0.10	0.00	-0.29	(-0.49 -0.10)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.22	0.06	0.00	0.22	(0.09 0.35)	-0.02	0.06	0.00	-0.02	(-0.15 0.11)	
=1 if two or more older siblings	0.07	0.08	0.00	0.07	(-0.08 0.23)	0.09	0.08	0.00	0.09	(-0.06 0.24)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.02	0.15	0.00	0.02	(-0.28 0.31)	0.25	0.15	0.00	0.25	(-0.04 0.55)	
<i>Country where interview took place</i>											
=1 if wales	0.35	0.26	0.00	0.35	(-0.15 0.86)	-0.05	0.26	0.00	-0.05	(-0.57 0.47)	
=1 if nireland	-0.11	0.50	0.00	-0.11	(-1.06 0.87)	-0.46	0.50	0.01	-0.46	(-1.44 0.56)	
=1 if scotland	0.10	0.31	0.00	0.10	(-0.50 0.70)	-0.27	0.31	0.00	-0.27	(-0.87 0.33)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.09	0.05	0.00	-0.09	(-0.19 0.02)	0.02	0.06	0.00	0.02	(-0.09 0.13)	
<i>Childcare</i>											
=1 if formal childcare	0.29	0.10	0.00	0.29	(0.08 0.50)	-0.06	0.11	0.00	-0.06	(-0.27 0.15)	
=1 if informal/ other childcare	0.04	0.08	0.00	0.04	(-0.12 0.19)	-0.07	0.08	0.00	-0.07	(-0.23 0.09)	
=1 if grandparent care	0.03	0.06	0.00	0.03	(-0.09 0.15)	0.02	0.06	0.00	0.02	(-0.10 0.15)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.08	0.06	0.00	-0.09	(-0.20 0.04)	0.08	0.06	0.00	0.08	(-0.04 0.20)	
=1 if working full-time	0.04	0.12	0.00	0.04	(-0.20 0.27)	0.07	0.12	0.00	0.07	(-0.16 0.31)	
<i>How long mother breastfed child</i>											

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Table A.3.94 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.02	0.08	0.00	0.02	(-0.13 0.18)	0.04	0.08	0.00	0.04	(-0.12 0.20)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.41	0.22	0.00	0.41	(-0.01 0.82)	-0.50	0.22	0.00	-0.50	(-0.94 -0.08)
=1 if mother tells child off	0.07	0.05	0.00	0.07	(-0.03 0.17)	-0.29	0.05	0.00	-0.29	(-0.39 -0.19)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.00	0.08	0.00	-0.00	(-0.16 0.16)	0.13	0.08	0.00	0.13	(-0.03 0.29)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.16	0.06	0.00	0.16	(0.04 0.29)	-0.11	0.07	0.00	-0.11	(-0.23 0.02)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.13	0.08	0.00	-0.13	(-0.28 0.03)	0.23	0.08	0.00	0.23	(0.07 0.39)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.12	0.06	0.00	0.12	(0.01 0.23)	0.01	0.06	0.00	0.01	(-0.10 0.11)
<i>Maternal mental health</i>										
=1 if high distress	0.51	0.10	0.00	0.51	(0.30 0.71)	-0.06	0.11	0.00	-0.06	(-0.27 0.15)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.07	0.05	0.00	0.07	(-0.04 0.17)	-0.01	0.05	0.00	-0.01	(-0.12 0.09)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.24	0.07	0.00	-0.24	(-0.38 -0.10)	0.07	0.07	0.00	0.06	(-0.07 0.21)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.10	0.08	0.00	0.10	(-0.05 0.26)	-0.07	0.08	0.00	-0.07	(-0.23 0.08)
=1 if rented (housing association or private)/ other	0.10	0.07	0.00	0.10	(-0.03 0.24)	0.00	0.07	0.00	0.00	(-0.13 0.14)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.09	0.10	0.00	-0.09	(-0.28 0.11)	0.05	0.10	0.00	0.05	(-0.14 0.24)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	-0.07	0.09	0.00	-0.07	(-0.24 0.10)	-0.02	0.09	0.00	-0.02	(-0.20 0.15)
=1 if managerial/ professional occupation	0.05	0.08	0.00	0.05	(-0.11 0.20)	-0.08	0.08	0.00	-0.08	(-0.24 0.08)
=1 if technical, semi-routine or routine occupation	0.04	0.06	0.00	0.04	(-0.08 0.16)	0.06	0.06	0.00	0.06	(-0.06 0.18)
=1 if can't remember or father died	0.06	0.10	0.00	0.06	(-0.13 0.24)	-0.02	0.10	0.00	-0.02	(-0.21 0.17)
constant	0.48	0.66	0.01	0.48	(-0.81 1.80)	-0.52	0.66	0.01	-0.52	(-1.79 0.76)
σ_ϵ	0.93	0.03	0.00	0.94	(0.86 0.98)	0.96	0.03	0.00	0.96	(0.90 1.00)
σ_ζ	0.20	0.10	0.01	0.19	(0.06 0.41)	0.11	0.11	0.02	0.09	(0.01 0.36)
$\rho_{\zeta\xi}$	0.50	0.45	0.04	0.64	(-0.58 1.00)	0.17	0.53	0.05	0.25	(-0.94 0.94)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.95: Bayesian Estimates: SDQ PR/ PB and # Hospital Admissions (Eq. 1, TP, Age 7)

	SDQ PR					SDQ PB					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
number of hospital admissions	0.08	0.03	0.00	0.08	(0.03 0.15)	-0.05	0.05	0.00	-0.04	(-0.14 0.04)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.19	0.03	0.00	-0.19	(-0.26 -0.13)	0.07	0.03	0.00	0.07	(0.01 0.13)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	-0.01	0.03	0.00	-0.01	(-0.07 0.05)	0.01	0.03	0.00	0.01	(-0.05 0.07)	
=1 if NVQ level 3	-0.00	0.03	0.00	-0.00	(-0.07 0.07)	0.02	0.03	0.00	0.02	(-0.05 0.08)	
=1 if overseas qual. only	0.12	0.10	0.00	0.12	(-0.08 0.32)	-0.15	0.10	0.00	-0.15	(-0.34 0.05)	
=1 if none of these	-0.11	0.06	0.00	-0.11	(-0.22 0.01)	-0.00	0.06	0.00	-0.00	(-0.12 0.12)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	0.10	0.05	0.00	0.10	(0.01 0.19)	0.02	0.05	0.00	0.02	(-0.07 0.11)	
=1 if 25 to 29 years	-0.02	0.04	0.00	-0.02	(-0.09 0.05)	0.06	0.04	0.00	0.06	(-0.01 0.13)	
=1 if 30 to 34 years	-0.02	0.03	0.00	-0.02	(-0.09 0.04)	0.01	0.03	0.00	0.01	(-0.06 0.07)	
<i>Child demography</i>											
=1 if female	-0.08	0.02	0.00	-0.08	(-0.13 -0.04)	0.32	0.02	0.00	0.32	(0.27 0.36)	
age (years)	-0.05	0.05	0.00	-0.05	(-0.14 0.04)	0.06	0.05	0.00	0.06	(-0.03 0.16)	
=1 if ethnicity is non-white	0.19	0.05	0.00	0.19	(0.09 0.30)	0.04	0.05	0.00	0.04	(-0.07 0.15)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.20	0.05	0.00	0.20	(0.09 0.30)	-0.05	0.05	0.00	-0.05	(-0.16 0.05)	
<i>Size of household</i>											
log of hh size incl. cm	-0.08	0.07	0.00	-0.07	(-0.22 0.07)	-0.13	0.07	0.00	-0.13	(-0.27 0.01)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.10	0.03	0.00	0.10	(0.05 0.16)	-0.01	0.03	0.00	-0.01	(-0.06 0.04)	
=1 if two or more older siblings	0.08	0.04	0.00	0.08	(0.01 0.15)	-0.01	0.04	0.00	-0.01	(-0.08 0.07)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	-0.09	0.10	0.00	-0.09	(-0.27 0.10)	0.15	0.10	0.00	0.15	(-0.03 0.34)	
<i>Country where interview took place</i>											
=1 if wales	-0.10	0.12	0.00	-0.10	(-0.33 0.13)	-0.01	0.12	0.00	-0.01	(-0.24 0.23)	
=1 if nireland	-0.29	0.25	0.00	-0.29	(-0.79 0.19)	0.41	0.25	0.00	0.41	(-0.10 0.90)	
=1 if scotland	-0.06	0.14	0.00	-0.06	(-0.34 0.22)	-0.09	0.14	0.00	-0.10	(-0.37 0.18)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.08	0.03	0.00	-0.08	(-0.13 -0.03)	0.00	0.03	0.00	0.00	(-0.05 0.05)	
<i>Childcare</i>											
=1 if formal childcare	-0.09	0.05	0.00	-0.09	(-0.19 0.01)	-0.01	0.05	0.00	-0.01	(-0.12 0.09)	
=1 if informal/ other childcare	0.02	0.04	0.00	0.02	(-0.06 0.10)	-0.04	0.04	0.00	-0.04	(-0.12 0.05)	
=1 if grandparent care	-0.04	0.03	0.00	-0.04	(-0.10 0.02)	0.02	0.03	0.00	0.02	(-0.04 0.08)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.09	0.03	0.00	-0.09	(-0.14 -0.03)	0.06	0.03	0.00	0.06	(0.00 0.11)	
=1 if working full-time	-0.11	0.06	0.00	-0.11	(-0.22 -0.00)	0.12	0.06	0.00	0.12	(0.01 0.23)	
<i>How long mother breastfed child</i>											

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Table A.3.95 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	-0.07	0.03	0.00	-0.07	(-0.13 -0.02)	0.01	0.03	0.00	0.01	(-0.05 0.07)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.34	0.13	0.00	0.34	(0.10 0.59)	-0.18	0.13	0.00	-0.18	(-0.43 0.07)
=1 if mother tells child off	0.13	0.02	0.00	0.13	(0.08 0.17)	-0.34	0.02	0.00	-0.34	(-0.38 -0.29)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.27	0.04	0.00	-0.27	(-0.35 -0.18)	0.09	0.04	0.00	0.09	(0.01 0.18)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.09	0.03	0.00	0.09	(0.02 0.16)	-0.06	0.03	0.00	-0.06	(-0.12 0.01)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.05	0.04	0.00	-0.05	(-0.13 0.03)	0.07	0.04	0.00	0.07	(-0.01 0.15)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.09	0.03	0.00	0.09	(0.04 0.14)	0.05	0.03	0.00	0.05	(-0.00 0.10)
<i>Maternal mental health</i>										
=1 if high distress	0.59	0.08	0.00	0.59	(0.44 0.75)	-0.23	0.08	0.00	-0.23	(-0.38 -0.08)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.06	0.03	0.00	0.06	(0.00 0.12)	-0.08	0.03	0.00	-0.08	(-0.14 -0.02)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.04	0.03	0.00	-0.04	(-0.10 0.02)	-0.01	0.03	0.00	-0.01	(-0.07 0.05)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.09	0.05	0.00	0.09	(-0.01 0.19)	-0.09	0.05	0.00	-0.09	(-0.19 0.01)
=1 if rented (housing association or private)/ other	0.11	0.04	0.00	0.11	(0.03 0.19)	0.01	0.04	0.00	0.01	(-0.07 0.10)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.26	0.06	0.00	-0.26	(-0.37 -0.15)	0.18	0.06	0.00	0.18	(0.07 0.29)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.12	0.05	0.00	0.12	(0.02 0.23)	-0.00	0.05	0.00	-0.00	(-0.11 0.10)
=1 if managerial/ professional occupation	0.01	0.03	0.00	0.01	(-0.05 0.07)	0.02	0.03	0.00	0.02	(-0.04 0.08)
=1 if technical, semi-routine or routine occupation	0.07	0.03	0.00	0.07	(0.01 0.12)	-0.03	0.03	0.00	-0.03	(-0.08 0.03)
=1 if can't remember or father died	-0.02	0.05	0.00	-0.02	(-0.13 0.08)	-0.10	0.05	0.00	-0.10	(-0.20 0.01)
constant	2.23	0.41	0.00	2.23	(1.43 3.02)	-1.21	0.41	0.00	-1.21	(-2.01 -0.41)
σ_ϵ	0.95	0.01	0.00	0.95	(0.91 0.97)	0.94	0.02	0.00	0.94	(0.89 0.97)
σ_ζ	0.10	0.07	0.02	0.07	(0.03 0.29)	0.19	0.08	0.02	0.19	(0.06 0.37)
$\rho_{\zeta\xi}$	-0.19	0.41	0.06	-0.25	(-0.81 0.70)	0.41	0.36	0.04	0.46	(-0.40 0.90)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.96: Bayesian Estimates: SDQ PR/ PB and # Hospital Admissions (Eq. 2, LP, Age 7)

	SDQ PR					SDQ PB					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.08	0.23	0.02	-0.07	(-0.53 0.36)	-0.03	0.23	0.02	-0.03	(-0.52 0.42)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.02	0.23	0.00	0.02	(-0.43 0.48)	0.04	0.24	0.00	0.04	(-0.42 0.50)	
=1 if NVQ level 3	0.13	0.27	0.00	0.14	(-0.41 0.66)	0.14	0.27	0.00	0.14	(-0.40 0.67)	
=1 if overseas qual. only	-0.28	0.56	0.01	-0.27	(-1.41 0.79)	-0.24	0.56	0.01	-0.22	(-1.36 0.83)	
=1 if none of these	0.44	0.31	0.00	0.44	(-0.17 1.04)	0.48	0.31	0.00	0.48	(-0.13 1.08)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	-0.18	0.32	0.00	-0.18	(-0.80 0.44)	-0.17	0.32	0.00	-0.17	(-0.79 0.45)	
=1 if 25 to 29 years	-0.25	0.30	0.00	-0.25	(-0.83 0.34)	-0.24	0.29	0.00	-0.25	(-0.81 0.33)	
=1 if 30 to 34 years	-0.34	0.30	0.00	-0.34	(-0.92 0.27)	-0.34	0.30	0.00	-0.34	(-0.93 0.26)	
<i>Child demography</i>											
=1 if female	-0.13	0.18	0.00	-0.13	(-0.48 0.22)	-0.12	0.18	0.00	-0.12	(-0.47 0.23)	
age (years)	-0.39	0.26	0.02	-0.38	(-0.91 0.11)	-0.43	0.26	0.02	-0.44	(-0.94 0.11)	
=1 if ethnicity is non-white	0.02	0.32	0.00	0.03	(-0.61 0.64)	0.02	0.32	0.00	0.02	(-0.62 0.65)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	-0.10	0.33	0.00	-0.09	(-0.77 0.54)	-0.11	0.33	0.00	-0.11	(-0.77 0.53)	
<i>Size of household</i>											
log of hh size incl. cm	-0.22	0.31	0.01	-0.21	(-0.83 0.39)	-0.23	0.32	0.01	-0.23	(-0.84 0.38)	
<i>Number of older siblings</i>											
=1 if no older siblings	-0.10	0.22	0.00	-0.10	(-0.54 0.32)	-0.10	0.22	0.00	-0.10	(-0.53 0.33)	
=1 if two or more older siblings	-0.36	0.28	0.00	-0.35	(-0.90 0.18)	-0.37	0.28	0.00	-0.37	(-0.92 0.17)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.26	0.60	0.02	0.23	(-0.88 1.51)	0.22	0.60	0.02	0.20	(-0.90 1.44)	
<i>Country where interview took place</i>											
=1 if wales	0.24	0.56	0.01	0.23	(-0.83 1.35)	0.27	0.55	0.01	0.27	(-0.78 1.38)	
=1 if nireland	-0.15	0.61	0.01	-0.15	(-1.38 1.04)	-0.15	0.62	0.01	-0.14	(-1.39 1.08)	
=1 if scotland	-0.29	0.58	0.01	-0.28	(-1.45 0.83)	-0.30	0.58	0.01	-0.30	(-1.44 0.84)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.05	0.20	0.00	-0.06	(-0.44 0.33)	-0.05	0.20	0.00	-0.06	(-0.44 0.33)	
<i>Childcare</i>											
=1 if formal childcare	0.05	0.39	0.00	0.06	(-0.74 0.79)	0.04	0.39	0.00	0.05	(-0.74 0.78)	
=1 if informal/ other childcare	0.39	0.30	0.00	0.40	(-0.22 0.98)	0.41	0.30	0.00	0.41	(-0.20 0.99)	
=1 if grandparent care	0.39	0.21	0.00	0.39	(-0.03 0.80)	0.39	0.21	0.00	0.39	(-0.02 0.80)	
<i>Maternal employment (t - 1)</i>											
=1 if working part-time	-0.16	0.21	0.00	-0.16	(-0.58 0.25)	-0.18	0.21	0.00	-0.18	(-0.59 0.23)	
=1 if working full-time	-0.61	0.48	0.01	-0.59	(-1.60 0.31)	-0.63	0.49	0.01	-0.62	(-1.60 0.31)	
<i>How long mother breastfed child</i>											
=1 if at least 6 months	-0.27	0.30	0.00	-0.27	(-0.87 0.31)	-0.27	0.30	0.00	-0.27	(-0.89 0.30)	
<i>If child is naughty...</i>											

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Table A.3.96 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.10	0.53	0.01	-0.09	(-1.16 0.92)	-0.08	0.53	0.01	-0.07	(-1.18 0.93)
=1 if mother tells child off	0.29	0.18	0.00	0.29	(-0.06 0.65)	0.28	0.18	0.00	0.28	(-0.08 0.64)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	0.14	0.26	0.00	0.14	(-0.36 0.67)	0.15	0.26	0.00	0.14	(-0.36 0.67)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	-0.37	0.24	0.00	-0.36	(-0.84 0.09)	-0.33	0.23	0.00	-0.33	(-0.80 0.13)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	0.21	0.37	0.01	0.21	(-0.50 0.96)	0.20	0.37	0.01	0.19	(-0.51 0.95)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.23	0.20	0.00	0.23	(-0.16 0.62)	0.24	0.20	0.00	0.24	(-0.14 0.63)
<i>Maternal mental health</i>										
=1 if high distress	-0.21	0.39	0.00	-0.21	(-1.01 0.55)	-0.18	0.39	0.00	-0.18	(-0.96 0.56)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.00	0.18	0.00	-0.00	(-0.35 0.36)	0.01	0.18	0.00	0.01	(-0.35 0.37)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.41	0.29	0.00	-0.40	(-0.99 0.15)	-0.43	0.29	0.00	-0.42	(-1.01 0.12)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.29	0.26	0.00	0.29	(-0.22 0.80)	0.30	0.26	0.00	0.30	(-0.21 0.81)
=1 if rented (housing association or private)/ other	-0.13	0.25	0.00	-0.13	(-0.63 0.36)	-0.13	0.25	0.00	-0.13	(-0.61 0.37)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.46	0.31	0.00	-0.46	(-1.08 0.16)	-0.46	0.32	0.01	-0.46	(-1.07 0.17)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.11	0.30	0.00	0.11	(-0.49 0.68)	0.10	0.30	0.00	0.10	(-0.50 0.68)
=1 if managerial/ professional occupation	0.11	0.29	0.00	0.11	(-0.45 0.67)	0.10	0.29	0.00	0.10	(-0.46 0.67)
=1 if technical, semi-routine or routine occupation	0.44	0.21	0.00	0.44	(0.03 0.87)	0.44	0.21	0.00	0.43	(0.03 0.85)
=1 if can't remember or father died	-0.37	0.36	0.00	-0.37	(-1.09 0.32)	-0.38	0.36	0.00	-0.37	(-1.09 0.31)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	0.02	0.29	0.00	0.03	(-0.54 0.57)	0.05	0.28	0.00	0.05	(-0.51 0.59)
constant	0.20	0.94	0.04	0.21	(-1.66 2.02)	0.20	0.96	0.05	0.20	(-1.74 2.05)
α	0.77	0.37	0.02	0.69	(0.38 1.58)	0.77	0.32	0.01	0.70	(0.38 1.63)
$\ln\alpha$	-0.33	0.37	0.01	-0.37	(-0.96 0.46)	-0.33	0.36	0.01	-0.36	(-0.96 0.49)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.97: Bayesian Estimates: SDQ PR/ PB and # Hospital Admissions (Eq. 2, TP, Age 7)

	SDQ PR					SDQ PB					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.12	0.11	0.01	-0.11	(-0.35 0.11)	-0.13	0.11	0.01	-0.13	(-0.34 0.07)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.02	0.10	0.00	0.02	(-0.18 0.22)	0.02	0.10	0.00	0.02	(-0.18 0.22)	
=1 if NVQ level 3	-0.21	0.12	0.00	-0.21	(-0.45 0.04)	-0.21	0.12	0.00	-0.21	(-0.45 0.03)	
=1 if overseas qual. only	0.73	0.27	0.00	0.74	(0.20 1.24)	0.72	0.27	0.00	0.72	(0.19 1.24)	
=1 if none of these	-0.10	0.19	0.00	-0.10	(-0.47 0.27)	-0.10	0.19	0.00	-0.10	(-0.48 0.27)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	0.06	0.16	0.00	0.07	(-0.25 0.37)	0.05	0.16	0.00	0.05	(-0.26 0.36)	
=1 if 25 to 29 years	0.11	0.13	0.00	0.11	(-0.14 0.36)	0.11	0.13	0.00	0.10	(-0.14 0.35)	
=1 if 30 to 34 years	0.01	0.12	0.00	0.00	(-0.22 0.24)	0.00	0.12	0.00	0.00	(-0.23 0.23)	
<i>Child demography</i>											
=1 if female	-0.48	0.08	0.00	-0.48	(-0.64 -0.32)	-0.48	0.08	0.00	-0.48	(-0.64 -0.32)	
age (years)	-0.25	0.14	0.01	-0.25	(-0.54 0.03)	-0.26	0.15	0.01	-0.27	(-0.52 0.04)	
=1 if ethnicity is non-white	-0.01	0.18	0.00	-0.01	(-0.37 0.34)	-0.01	0.19	0.00	-0.01	(-0.39 0.35)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.07	0.18	0.00	0.07	(-0.28 0.40)	0.07	0.18	0.00	0.07	(-0.29 0.41)	
<i>Size of household</i>											
log of hh size incl. cm	-0.23	0.23	0.01	-0.23	(-0.68 0.23)	-0.21	0.23	0.01	-0.21	(-0.64 0.24)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.03	0.10	0.00	0.04	(-0.16 0.23)	0.04	0.10	0.00	0.04	(-0.16 0.23)	
=1 if two or more older siblings	0.06	0.13	0.00	0.06	(-0.20 0.30)	0.05	0.13	0.00	0.05	(-0.20 0.29)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.36	0.36	0.01	0.35	(-0.34 1.10)	0.26	0.36	0.01	0.26	(-0.44 0.95)	
<i>Country where interview took place</i>											
=1 if wales	0.37	0.36	0.01	0.37	(-0.34 1.07)	0.37	0.35	0.01	0.37	(-0.33 1.06)	
=1 if nireland	0.51	0.49	0.01	0.51	(-0.44 1.47)	0.51	0.50	0.01	0.51	(-0.47 1.50)	
=1 if scotland	0.25	0.39	0.01	0.25	(-0.54 1.02)	0.24	0.39	0.01	0.24	(-0.52 1.02)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	0.15	0.09	0.00	0.15	(-0.02 0.33)	0.15	0.09	0.00	0.15	(-0.02 0.33)	
<i>Childcare</i>											
=1 if formal childcare	-0.47	0.20	0.00	-0.47	(-0.88 -0.08)	-0.47	0.21	0.00	-0.47	(-0.90 -0.07)	
=1 if informal/ other childcare	-0.04	0.16	0.00	-0.04	(-0.35 0.27)	-0.04	0.16	0.00	-0.04	(-0.36 0.27)	
=1 if grandparent care	-0.04	0.10	0.00	-0.04	(-0.23 0.16)	-0.04	0.10	0.00	-0.04	(-0.23 0.15)	
<i>Maternal employment (t - 1)</i>											
=1 if working part-time	0.04	0.09	0.00	0.04	(-0.14 0.22)	0.04	0.09	0.00	0.04	(-0.14 0.22)	
=1 if working full-time	0.16	0.19	0.00	0.16	(-0.21 0.53)	0.17	0.19	0.00	0.17	(-0.21 0.54)	
<i>How long mother breastfed child</i>											
=1 if at least 6 months	-0.13	0.11	0.00	-0.12	(-0.34 0.08)	-0.13	0.11	0.00	-0.13	(-0.35 0.08)	
<i>If child is naughty...</i>											

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Table A.3.97 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.33	0.30	0.00	0.34	(-0.28 0.90)	0.33	0.30	0.00	0.34	(-0.26 0.90)
=1 if mother tells child off	-0.07	0.08	0.00	-0.07	(-0.23 0.10)	-0.06	0.08	0.00	-0.06	(-0.22 0.11)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.20	0.14	0.00	-0.21	(-0.47 0.07)	-0.21	0.14	0.00	-0.21	(-0.48 0.06)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	-0.06	0.12	0.00	-0.05	(-0.30 0.17)	-0.05	0.12	0.00	-0.05	(-0.28 0.17)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.17	0.19	0.00	-0.17	(-0.54 0.21)	-0.19	0.19	0.00	-0.18	(-0.56 0.19)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.40	0.09	0.00	0.40	(0.22 0.58)	0.40	0.09	0.00	0.40	(0.22 0.57)
<i>Maternal mental health</i>										
=1 if high distress	-0.10	0.26	0.00	-0.10	(-0.61 0.39)	-0.11	0.26	0.00	-0.10	(-0.63 0.39)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.21	0.10	0.00	0.21	(0.01 0.40)	0.20	0.10	0.00	0.20	(0.00 0.40)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.03	0.10	0.00	-0.03	(-0.24 0.17)	-0.03	0.11	0.00	-0.03	(-0.23 0.18)
Other										
<i>Housing tenure</i>										
=1 if council rented	-0.29	0.17	0.00	-0.29	(-0.62 0.04)	-0.30	0.17	0.00	-0.29	(-0.63 0.03)
=1 if rented (housing association or private)/ other	-0.18	0.14	0.00	-0.18	(-0.46 0.10)	-0.19	0.14	0.00	-0.19	(-0.47 0.09)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.05	0.21	0.00	-0.05	(-0.44 0.37)	-0.07	0.20	0.00	-0.07	(-0.47 0.34)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.17	0.16	0.00	0.17	(-0.16 0.49)	0.17	0.16	0.00	0.17	(-0.15 0.49)
=1 if managerial/ professional occupation	-0.11	0.12	0.00	-0.11	(-0.34 0.12)	-0.10	0.12	0.00	-0.10	(-0.33 0.12)
=1 if technical, semi-routine or routine occupation	-0.08	0.10	0.00	-0.08	(-0.27 0.12)	-0.07	0.10	0.00	-0.07	(-0.27 0.12)
=1 if can't remember or father died	-0.09	0.18	0.00	-0.09	(-0.44 0.25)	-0.09	0.18	0.00	-0.09	(-0.43 0.25)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	0.18	0.17	0.00	0.18	(-0.17 0.51)	0.18	0.17	0.00	0.18	(-0.15 0.51)
constant	-0.06	0.75	0.06	-0.08	(-1.46 1.41)	0.22	0.80	0.07	0.22	(-1.33 1.75)
α	0.85	0.17	0.01	0.83	(0.59 1.26)	0.84	0.16	0.01	0.82	(0.60 1.22)
$\ln\alpha$	-0.18	0.19	0.01	-0.18	(-0.52 0.23)	-0.19	0.18	0.01	-0.20	(-0.51 0.20)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.98: Bayesian Estimates: SDQ ES/ CP and SDQ HA (Eq. 1, LP, Age 7)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
hyperactivity/inattention	0.16	0.02	0.00	0.16	(0.11 0.20)	0.20	0.02	0.00	0.20	(0.16 0.24)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.03	0.07	0.00	-0.03	(-0.17 0.11)	0.02	0.07	0.00	0.02	(-0.11 0.15)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.06	0.07	0.00	0.06	(-0.08 0.21)	0.03	0.07	0.00	0.03	(-0.10 0.16)	
=1 if NVQ level 3	0.04	0.08	0.00	0.04	(-0.13 0.20)	0.07	0.08	0.00	0.07	(-0.08 0.22)	
=1 if overseas qual. only	0.13	0.20	0.00	0.13	(-0.26 0.53)	0.04	0.18	0.00	0.04	(-0.31 0.39)	
=1 if none of these	0.03	0.11	0.00	0.03	(-0.19 0.25)	0.21	0.10	0.00	0.21	(0.01 0.40)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	-0.22	0.11	0.00	-0.22	(-0.44 0.00)	0.11	0.10	0.00	0.11	(-0.09 0.32)	
=1 if 25 to 29 years	-0.01	0.10	0.00	-0.01	(-0.21 0.18)	0.10	0.09	0.00	0.10	(-0.08 0.28)	
=1 if 30 to 34 years	-0.07	0.10	0.00	-0.07	(-0.27 0.13)	-0.03	0.09	0.00	-0.03	(-0.21 0.16)	
<i>Child demography</i>											
=1 if female	0.19	0.06	0.00	0.19	(0.08 0.31)	-0.01	0.05	0.00	-0.01	(-0.11 0.09)	
age (years)	-0.00	0.09	0.00	0.00	(-0.18 0.18)	-0.14	0.08	0.00	-0.14	(-0.30 0.03)	
=1 if ethnicity is non-white	-0.01	0.11	0.00	-0.01	(-0.22 0.20)	-0.14	0.10	0.00	-0.15	(-0.33 0.05)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	-0.00	0.12	0.00	-0.00	(-0.24 0.23)	0.18	0.11	0.00	0.18	(-0.03 0.39)	
<i>Size of household</i>											
log of hh size incl. cm	0.19	0.11	0.00	0.19	(-0.03 0.41)	0.25	0.10	0.00	0.25	(0.05 0.45)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.11	0.07	0.00	0.11	(-0.04 0.25)	-0.01	0.06	0.00	-0.01	(-0.13 0.12)	
=1 if two or more older siblings	-0.18	0.09	0.00	-0.18	(-0.35 -0.00)	-0.09	0.08	0.00	-0.09	(-0.25 0.06)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.07	0.16	0.00	0.08	(-0.24 0.39)	-0.00	0.14	0.00	-0.00	(-0.28 0.29)	
<i>Country where interview took place</i>											
=1 if wales	0.27	0.30	0.00	0.28	(-0.32 0.85)	-0.13	0.27	0.00	-0.13	(-0.67 0.41)	
=1 if nireland	0.31	0.50	0.00	0.31	(-0.66 1.26)	0.74	0.48	0.00	0.74	(-0.19 1.68)	
=1 if scotland	-0.18	0.31	0.00	-0.18	(-0.78 0.45)	0.02	0.29	0.00	0.02	(-0.55 0.59)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.09	0.06	0.00	-0.09	(-0.21 0.03)	0.01	0.05	0.00	0.01	(-0.10 0.11)	
<i>Childcare</i>											
=1 if formal childcare	0.38	0.11	0.00	0.38	(0.16 0.59)	0.11	0.10	0.00	0.11	(-0.09 0.31)	
=1 if informal/ other childcare	0.05	0.09	0.00	0.05	(-0.12 0.23)	0.06	0.08	0.00	0.06	(-0.10 0.21)	
=1 if grandparent care	0.05	0.07	0.00	0.05	(-0.09 0.18)	-0.07	0.06	0.00	-0.07	(-0.19 0.05)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.19	0.07	0.00	-0.19	(-0.32 -0.06)	-0.04	0.06	0.00	-0.04	(-0.16 0.08)	
=1 if working full-time	-0.27	0.13	0.00	-0.27	(-0.52 -0.00)	-0.05	0.12	0.00	-0.05	(-0.29 0.18)	
<i>How long mother breastfed child</i>											

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Table A.3.98 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.21	0.09	0.00	0.21	(0.03 0.38)	0.00	0.08	0.00	0.00	(-0.16 0.16)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.01	0.26	0.00	0.01	(-0.50 0.52)	0.67	0.24	0.00	0.67	(0.20 1.15)
=1 if mother tells child off	0.07	0.06	0.00	0.07	(-0.04 0.18)	0.46	0.05	0.00	0.46	(0.36 0.56)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.09	0.09	0.00	-0.09	(-0.27 0.09)	-0.18	0.08	0.00	-0.18	(-0.34 -0.02)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.04	0.07	0.00	0.04	(-0.10 0.18)	0.05	0.07	0.00	0.05	(-0.08 0.18)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.03	0.09	0.00	-0.03	(-0.19 0.14)	-0.16	0.08	0.00	-0.16	(-0.31 -0.01)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.12	0.06	0.00	0.12	(-0.01 0.24)	0.08	0.06	0.00	0.08	(-0.03 0.19)
<i>Maternal mental health</i>										
=1 if high distress	0.61	0.12	0.00	0.61	(0.38 0.84)	0.21	0.11	0.00	0.22	(0.00 0.42)
<i>Does mother currently smoke</i>										
=1 if currently smokes	-0.06	0.06	0.00	-0.06	(-0.18 0.05)	-0.01	0.05	0.00	-0.01	(-0.12 0.09)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	0.07	0.08	0.00	0.07	(-0.08 0.22)	0.14	0.07	0.00	0.14	(0.01 0.28)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.16	0.09	0.00	0.16	(-0.02 0.34)	0.14	0.08	0.00	0.14	(-0.01 0.30)
=1 if rented (housing association or private)/ other	0.09	0.08	0.00	0.09	(-0.06 0.23)	0.01	0.07	0.00	0.01	(-0.12 0.15)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.19	0.11	0.00	-0.19	(-0.41 0.02)	0.07	0.10	0.00	0.07	(-0.11 0.26)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	-0.03	0.10	0.00	-0.03	(-0.23 0.16)	-0.09	0.09	0.00	-0.09	(-0.27 0.09)
=1 if managerial/ professional occupation	-0.01	0.09	0.00	-0.01	(-0.18 0.17)	0.06	0.08	0.00	0.06	(-0.10 0.22)
=1 if technical, semi-routine or routine occupation	-0.05	0.07	0.00	-0.05	(-0.18 0.08)	-0.00	0.06	0.00	-0.00	(-0.13 0.11)
=1 if can't remember or father died	-0.09	0.11	0.00	-0.09	(-0.30 0.12)	0.02	0.10	0.00	0.02	(-0.18 0.21)
constant	-0.56	0.69	0.01	-0.57	(-1.93 0.79)	-0.28	0.66	0.01	-0.27	(-1.58 1.00)
σ_ϵ	0.86	0.05	0.00	0.86	(0.76 0.94)	0.77	0.04	0.00	0.78	(0.69 0.84)
σ_ζ	0.42	0.11	0.00	0.43	(0.19 0.61)	0.38	0.09	0.00	0.38	(0.21 0.54)
$\rho_{\zeta\xi}$	-0.87	0.12	0.00	-0.91	(-1.00 -0.56)	-0.89	0.11	0.00	-0.92	(-1.00 -0.60)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.99: Bayesian Estimates: SDQ ES/ CP and SDQ HA (Eq. 1, TP, Age 7)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
hyperactivity/inattention	0.19	0.01	0.00	0.19	(0.17 0.22)	0.28	0.01	0.00	0.28	(0.26 0.30)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.07	0.04	0.00	-0.07	(-0.15 0.00)	-0.09	0.03	0.00	-0.09	(-0.16 -0.02)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	-0.07	0.03	0.00	-0.07	(-0.13 0.00)	-0.03	0.03	0.00	-0.03	(-0.09 0.03)	
=1 if NVQ level 3	-0.07	0.04	0.00	-0.07	(-0.15 0.00)	-0.06	0.03	0.00	-0.06	(-0.13 0.00)	
=1 if overseas qual. only	-0.02	0.12	0.00	-0.02	(-0.26 0.21)	0.13	0.11	0.00	0.13	(-0.09 0.35)	
=1 if none of these	-0.11	0.07	0.00	-0.11	(-0.25 0.04)	-0.10	0.07	0.00	-0.10	(-0.22 0.04)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	-0.02	0.05	0.00	-0.02	(-0.13 0.08)	0.07	0.05	0.00	0.07	(-0.02 0.17)	
=1 if 25 to 29 years	0.03	0.04	0.00	0.03	(-0.05 0.11)	-0.03	0.04	0.00	-0.03	(-0.10 0.05)	
=1 if 30 to 34 years	-0.01	0.04	0.00	-0.01	(-0.09 0.07)	-0.02	0.04	0.00	-0.02	(-0.09 0.04)	
<i>Child demography</i>											
=1 if female	0.20	0.03	0.00	0.20	(0.15 0.26)	0.03	0.02	0.00	0.03	(-0.01 0.08)	
age (years)	-0.02	0.05	0.00	-0.02	(-0.12 0.08)	0.03	0.05	0.00	0.03	(-0.06 0.12)	
=1 if ethnicity is non-white	-0.05	0.06	0.00	-0.05	(-0.18 0.07)	-0.16	0.06	0.00	-0.16	(-0.27 -0.05)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.08	0.06	0.00	0.08	(-0.05 0.20)	0.00	0.06	0.00	0.00	(-0.11 0.11)	
<i>Size of household</i>											
log of hh size incl. cm	0.34	0.08	0.00	0.34	(0.18 0.50)	0.29	0.07	0.00	0.29	(0.14 0.43)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.09	0.03	0.00	0.09	(0.03 0.16)	-0.10	0.03	0.00	-0.11	(-0.16 -0.05)	
=1 if two or more older siblings	-0.12	0.04	0.00	-0.12	(-0.21 -0.04)	-0.05	0.04	0.00	-0.05	(-0.13 0.02)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	-0.00	0.11	0.00	0.00	(-0.21 0.21)	0.08	0.09	0.00	0.08	(-0.11 0.26)	
<i>Country where interview took place</i>											
=1 if wales	-0.18	0.13	0.00	-0.18	(-0.45 0.07)	-0.01	0.12	0.00	-0.01	(-0.23 0.22)	
=1 if nireland	-0.01	0.28	0.00	-0.01	(-0.56 0.55)	-0.09	0.26	0.00	-0.08	(-0.60 0.42)	
=1 if scotland	-0.01	0.16	0.00	-0.01	(-0.31 0.30)	0.01	0.14	0.00	0.01	(-0.26 0.28)	
Time and Care											
<i>Time mother spents with child</i>											
=1 if at least just enough	-0.10	0.03	0.00	-0.10	(-0.15 -0.04)	-0.04	0.02	0.00	-0.04	(-0.09 0.01)	
<i>Childcare</i>											
=1 if formal childcare	0.00	0.06	0.00	0.00	(-0.11 0.12)	0.01	0.05	0.00	0.01	(-0.09 0.11)	
=1 if informal/ other childcare	-0.04	0.05	0.00	-0.04	(-0.13 0.05)	-0.01	0.04	0.00	-0.01	(-0.09 0.07)	
=1 if grandparent care	-0.03	0.03	0.00	-0.03	(-0.09 0.03)	-0.02	0.03	0.00	-0.02	(-0.08 0.03)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.07	0.03	0.00	-0.07	(-0.13 -0.01)	-0.02	0.03	0.00	-0.02	(-0.08 0.03)	
=1 if working full-time	-0.09	0.06	0.00	-0.09	(-0.21 0.04)	-0.01	0.05	0.00	-0.01	(-0.12 0.09)	
<i>How long mother breastfed child</i>											

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Table A.3.99 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.01	0.03	0.00	0.01	(-0.05 0.08)	-0.04	0.03	0.00	-0.04	(-0.10 0.02)
<i>If child is naughty...</i>										
=1 if mother smacks child	-0.01	0.14	0.00	-0.01	(-0.29 0.27)	0.49	0.12	0.00	0.49	(0.25 0.74)
=1 if mother tells child off	0.10	0.03	0.00	0.10	(0.04 0.15)	0.40	0.02	0.00	0.40	(0.36 0.45)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.13	0.05	0.00	-0.13	(-0.23 -0.04)	-0.15	0.04	0.00	-0.15	(-0.24 -0.06)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.09	0.04	0.00	0.09	(0.02 0.16)	-0.01	0.03	0.00	-0.01	(-0.07 0.06)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	0.09	0.05	0.00	0.09	(-0.00 0.18)	-0.00	0.04	0.00	-0.00	(-0.08 0.08)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.17	0.03	0.00	0.17	(0.11 0.23)	0.06	0.03	0.00	0.06	(0.01 0.11)
<i>Maternal mental health</i>										
=1 if high distress	0.55	0.09	0.00	0.55	(0.37 0.73)	0.34	0.08	0.00	0.34	(0.18 0.49)
<i>Does mother currently smoke</i>										
=1 if currently smokes	-0.07	0.04	0.00	-0.07	(-0.14 -0.00)	0.07	0.03	0.00	0.07	(0.00 0.13)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.06	0.03	0.00	-0.06	(-0.13 0.00)	-0.03	0.03	0.00	-0.03	(-0.09 0.03)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.03	0.06	0.00	0.03	(-0.09 0.15)	0.05	0.05	0.00	0.05	(-0.05 0.15)
=1 if rented (housing association or private)/ other	0.05	0.05	0.00	0.05	(-0.05 0.14)	0.02	0.04	0.00	0.02	(-0.06 0.11)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.11	0.06	0.00	-0.11	(-0.23 0.02)	-0.15	0.06	0.00	-0.15	(-0.27 -0.04)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.04	0.06	0.00	0.04	(-0.08 0.15)	0.03	0.05	0.00	0.02	(-0.08 0.13)
=1 if managerial/ professional occupation	0.07	0.04	0.00	0.06	(-0.01 0.14)	0.02	0.03	0.00	0.01	(-0.05 0.08)
=1 if technical, semi-routine or routine occupation	-0.00	0.03	0.00	-0.00	(-0.07 0.06)	-0.03	0.03	0.00	-0.03	(-0.09 0.03)
=1 if can't remember or father died	-0.07	0.06	0.00	-0.07	(-0.19 0.05)	0.10	0.05	0.00	0.10	(-0.01 0.21)
constant	-0.43	0.45	0.00	-0.43	(-1.31 0.46)	-0.89	0.41	0.00	-0.89	(-1.70 -0.07)
σ_ϵ	0.78	0.04	0.00	0.78	(0.70 0.85)	0.60	0.03	0.00	0.60	(0.54 0.66)
σ_ζ	0.61	0.06	0.00	0.62	(0.50 0.72)	0.66	0.04	0.00	0.66	(0.59 0.73)
$\rho_{\zeta\epsilon}$	-0.96	0.04	0.00	-0.97	(-1.00 -0.86)	-0.99	0.01	0.00	-0.99	(-1.00 -0.95)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.100: Bayesian Estimates: SDQ ES/ CP and SDQ HA (Eq. 2, LP, Age 7)

	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	0.00	0.16	0.00	-0.00	(-0.31 0.31)	0.05	0.16	0.00	0.05	(-0.27 0.35)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.33	0.17	0.00	0.33	(0.00 0.65)	0.33	0.16	0.00	0.33	(0.01 0.65)	
=1 if NVQ level 3	-0.10	0.19	0.00	-0.10	(-0.47 0.26)	-0.09	0.19	0.00	-0.09	(-0.46 0.27)	
=1 if overseas qual. only	0.48	0.40	0.00	0.48	(-0.29 1.25)	0.51	0.39	0.00	0.52	(-0.27 1.27)	
=1 if none of these	0.50	0.24	0.00	0.50	(0.03 0.96)	0.47	0.24	0.00	0.48	(0.01 0.93)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	0.60	0.24	0.00	0.60	(0.13 1.07)	0.60	0.24	0.00	0.61	(0.13 1.07)	
=1 if 25 to 29 years	0.42	0.22	0.00	0.42	(-0.01 0.84)	0.42	0.22	0.00	0.42	(-0.01 0.85)	
=1 if 30 to 34 years	0.42	0.22	0.00	0.42	(0.00 0.85)	0.43	0.22	0.00	0.43	(-0.00 0.85)	
<i>Child demography</i>											
=1 if female	-0.51	0.13	0.00	-0.51	(-0.76 -0.27)	-0.51	0.12	0.00	-0.51	(-0.76 -0.27)	
age (years)	0.23	0.19	0.00	0.23	(-0.15 0.61)	0.18	0.19	0.00	0.18	(-0.19 0.55)	
=1 if ethnicity is non-white	0.27	0.23	0.00	0.27	(-0.18 0.72)	0.27	0.24	0.00	0.27	(-0.19 0.73)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.48	0.30	0.00	0.47	(-0.12 1.08)	0.48	0.30	0.00	0.48	(-0.10 1.09)	
<i>Size of household</i>											
log of hh size incl. cm	-0.13	0.23	0.00	-0.12	(-0.57 0.33)	-0.21	0.23	0.00	-0.21	(-0.65 0.24)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.23	0.16	0.00	0.23	(-0.08 0.54)	0.21	0.16	0.00	0.21	(-0.10 0.51)	
=1 if two or more older siblings	0.38	0.19	0.00	0.38	(-0.00 0.75)	0.40	0.19	0.00	0.40	(0.02 0.77)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.17	0.40	0.00	0.17	(-0.59 0.94)	0.25	0.39	0.00	0.25	(-0.52 1.01)	
<i>Country where interview took place</i>											
=1 if wales	-0.09	0.47	0.00	-0.09	(-1.00 0.85)	-0.11	0.47	0.00	-0.11	(-1.04 0.83)	
=1 if nireland	0.31	0.58	0.01	0.31	(-0.82 1.44)	0.33	0.58	0.01	0.34	(-0.80 1.47)	
=1 if scotland	0.51	0.49	0.00	0.52	(-0.49 1.47)	0.56	0.51	0.01	0.56	(-0.42 1.57)	
Time and Care											
<i>Time mother spends with child</i>											
=1 if at least just enough	-0.24	0.14	0.00	-0.24	(-0.51 0.03)	-0.18	0.14	0.00	-0.18	(-0.45 0.09)	
<i>Childcare</i>											
=1 if formal childcare	0.15	0.26	0.00	0.15	(-0.36 0.65)	0.20	0.26	0.00	0.20	(-0.31 0.72)	
=1 if informal/ other childcare	-0.03	0.22	0.00	-0.03	(-0.45 0.40)	-0.02	0.22	0.00	-0.02	(-0.44 0.41)	
=1 if grandparent care	-0.03	0.15	0.00	-0.03	(-0.33 0.27)	-0.04	0.15	0.00	-0.04	(-0.34 0.25)	
<i>Maternal employment (t - 1)</i>											
=1 if working part-time	0.21	0.15	0.00	0.22	(-0.07 0.51)	0.21	0.15	0.00	0.21	(-0.08 0.49)	
=1 if working full-time	0.17	0.30	0.00	0.17	(-0.41 0.76)	0.09	0.30	0.00	0.09	(-0.49 0.68)	
<i>How long mother breastfed child</i>											
=1 if at least 6 months	-0.21	0.20	0.00	-0.21	(-0.60 0.18)	-0.20	0.20	0.00	-0.20	(-0.58 0.18)	
<i>If child is naughty...</i>											

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Table A.3.100 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	1.27	0.40	0.00	1.27	(0.48 2.05)	1.31	0.40	0.00	1.32	(0.51 2.09)
=1 if mother tells child off	0.76	0.13	0.00	0.76	(0.50 1.02)	0.73	0.13	0.00	0.73	(0.47 0.99)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.21	0.19	0.00	-0.21	(-0.57 0.17)	-0.18	0.19	0.00	-0.18	(-0.55 0.18)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.27	0.16	0.00	0.27	(-0.03 0.58)	0.25	0.16	0.00	0.26	(-0.06 0.55)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.29	0.26	0.00	-0.29	(-0.80 0.23)	-0.37	0.26	0.00	-0.37	(-0.87 0.14)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.04	0.15	0.00	0.04	(-0.25 0.33)	0.03	0.15	0.00	0.03	(-0.25 0.31)
<i>Maternal mental health</i>										
=1 if high distress	0.25	0.28	0.00	0.25	(-0.31 0.80)	0.25	0.28	0.00	0.25	(-0.30 0.79)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.09	0.15	0.00	0.08	(-0.21 0.37)	0.07	0.15	0.00	0.07	(-0.22 0.36)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.03	0.18	0.00	-0.03	(-0.39 0.34)	0.01	0.18	0.00	0.01	(-0.34 0.37)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.04	0.19	0.00	0.04	(-0.34 0.41)	0.05	0.19	0.00	0.06	(-0.31 0.42)
=1 if rented (housing association or private)/ other	0.13	0.17	0.00	0.13	(-0.20 0.46)	0.17	0.17	0.00	0.17	(-0.16 0.49)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.14	0.24	0.00	-0.14	(-0.62 0.34)	-0.14	0.25	0.00	-0.15	(-0.62 0.33)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.22	0.22	0.00	0.22	(-0.21 0.65)	0.22	0.22	0.00	0.22	(-0.21 0.64)
=1 if managerial/ professional occupation	-0.20	0.20	0.00	-0.20	(-0.58 0.19)	-0.19	0.19	0.00	-0.19	(-0.57 0.19)
=1 if technical, semi-routine or routine occupation	0.03	0.15	0.00	0.02	(-0.27 0.33)	0.03	0.15	0.00	0.03	(-0.27 0.32)
=1 if can't remember or father died	0.28	0.24	0.00	0.28	(-0.20 0.75)	0.28	0.24	0.00	0.28	(-0.20 0.76)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	0.14	0.21	0.00	0.14	(-0.26 0.55)	0.12	0.20	0.00	0.12	(-0.28 0.52)
Hyperactivity Risk Factors										
<i>Gestational age</i>										
=1 if gestational age < 37 weeks	0.24	0.27	0.00	0.24	(-0.29 0.76)	0.22	0.28	0.00	0.23	(-0.32 0.76)
<i>Maternal mental health (age 1)</i>										
=1 if increased risk of depression/ anxiety	0.36	0.17	0.00	0.36	(0.03 0.69)	0.29	0.17	0.00	0.29	(-0.03 0.62)
<i>Alcohol consumption during pregnancy</i>										
=1 if 1-2 times per month	0.22	0.23	0.00	0.22	(-0.22 0.67)	0.18	0.22	0.00	0.18	(-0.26 0.62)
=1 if at least once a week	-0.15	0.22	0.00	-0.15	(-0.58 0.27)	-0.20	0.22	0.00	-0.20	(-0.64 0.23)
<i>Smoking during pregnancy</i>										
=1 if mother smoked during pregnancy	0.14	0.15	0.00	0.14	(-0.17 0.44)	0.19	0.15	0.00	0.19	(-0.12 0.49)
<i>Smoking in the same room as child</i>										
=1 if anyone smokes in same room as child (age 1)	-0.01	0.18	0.00	-0.01	(-0.36 0.34)	-0.03	0.18	0.00	-0.04	(-0.38 0.32)
=1 if anyone smokes in same room as child (age 3)	0.24	0.16	0.00	0.24	(-0.06 0.56)	0.27	0.16	0.00	0.27	(-0.05 0.57)

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Table A.3.100 – continued from previous page											
	SDQ ES					SDQ CP					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
<i>Maternal attachment</i>											
Condon scale score (age 1)	0.02	0.07	0.00	0.02	(-0.11 0.15)	0.01	0.07	0.00	0.01	(-0.12 0.14)	
<i>Child-parent relationship</i>											
Condon scale score (age 3)	-0.58	0.07	0.00	-0.58	(-0.72 -0.44)	-0.59	0.07	0.00	-0.59	(-0.73 -0.46)	
<i>Maltreatment of children</i>											
Straus's conflict tactics scale (age 3)	0.09	0.07	0.00	0.09	(-0.05 0.23)	0.10	0.07	0.00	0.10	(-0.04 0.24)	
constant	1.39	0.87	0.01	1.39	(-0.33 3.08)	1.44	0.88	0.01	1.44	(-0.29 3.18)	
σ_τ	1.90	0.05	0.00	1.90	(1.81 2.00)	1.90	0.05	0.00	1.90	(1.81 2.00)	

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.101: Bayesian Estimates: SDQ ES/ CP and SDQ HA (Eq. 2, TP, Age 7)

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Standard Background Controls										
<i>Income</i>										
log of permanent family income (weekly, imp.)	-0.13	0.07	0.00	-0.13	(-0.28 0.02)	-0.12	0.07	0.00	-0.12	(-0.27 0.02)
<i>Maternal education</i>										
=1 if NVQ level 1 or 2	0.27	0.07	0.00	0.27	(0.13 0.41)	0.30	0.07	0.00	0.30	(0.17 0.44)
=1 if NVQ level 3	0.26	0.08	0.00	0.26	(0.11 0.42)	0.27	0.08	0.00	0.27	(0.11 0.42)
=1 if overseas qual. only	0.35	0.23	0.00	0.35	(-0.10 0.80)	0.34	0.24	0.00	0.35	(-0.12 0.80)
=1 if none of these	0.38	0.14	0.00	0.38	(0.10 0.66)	0.36	0.14	0.00	0.36	(0.08 0.63)
<i>Mother's age at birth</i>										
=1 if less than 25 years	0.25	0.11	0.00	0.25	(0.03 0.46)	0.25	0.11	0.00	0.25	(0.05 0.46)
=1 if 25 to 29 years	0.01	0.08	0.00	0.01	(-0.16 0.17)	0.01	0.08	0.00	0.02	(-0.15 0.18)
=1 if 30 to 34 years	0.02	0.08	0.00	0.02	(-0.13 0.17)	0.02	0.08	0.00	0.02	(-0.13 0.17)
<i>Child demography</i>										
=1 if female	-0.55	0.05	0.00	-0.55	(-0.66 -0.44)	-0.54	0.05	0.00	-0.54	(-0.65 -0.44)
age (years)	-0.12	0.10	0.00	-0.12	(-0.32 0.08)	-0.15	0.10	0.00	-0.16	(-0.34 0.04)
=1 if ethnicity is non-white	0.08	0.13	0.00	0.08	(-0.17 0.33)	0.10	0.13	0.00	0.10	(-0.15 0.35)
<i>Child's health endowment</i>										
=1 if birth weight < 2500g	0.47	0.15	0.00	0.47	(0.18 0.75)	0.52	0.15	0.00	0.52	(0.23 0.81)
<i>Size of household</i>										
log of hh size incl. cm	-0.30	0.15	0.00	-0.30	(-0.60 -0.01)	-0.36	0.15	0.00	-0.36	(-0.66 -0.07)
<i>Number of older siblings</i>										
=1 if no older siblings	-0.06	0.06	0.00	-0.06	(-0.19 0.06)	-0.07	0.06	0.00	-0.07	(-0.19 0.06)
=1 if two or more older siblings	0.04	0.09	0.00	0.04	(-0.13 0.21)	0.06	0.09	0.00	0.06	(-0.10 0.24)
<i>Respondent's relationship to child</i>										
=1 if natural mother of child	0.40	0.23	0.00	0.40	(-0.05 0.83)	0.30	0.22	0.00	0.30	(-0.13 0.74)
<i>Country where interview took place</i>										
=1 if wales	-0.13	0.26	0.00	-0.13	(-0.63 0.37)	-0.13	0.25	0.00	-0.13	(-0.62 0.37)
=1 if nireland	-0.21	0.44	0.00	-0.20	(-1.07 0.64)	-0.23	0.43	0.00	-0.23	(-1.06 0.63)
=1 if scotland	-0.19	0.30	0.00	-0.19	(-0.78 0.39)	-0.23	0.30	0.00	-0.23	(-0.83 0.35)
Time and Care										
<i>Time mother spends with child</i>										
=1 if at least just enough	-0.23	0.06	0.00	-0.23	(-0.34 -0.12)	-0.19	0.05	0.00	-0.19	(-0.30 -0.09)
<i>Childcare</i>										
=1 if formal childcare	-0.18	0.11	0.00	-0.18	(-0.41 0.05)	-0.18	0.11	0.00	-0.18	(-0.40 0.05)
=1 if informal/ other childcare	0.08	0.10	0.00	0.08	(-0.12 0.28)	0.08	0.10	0.00	0.08	(-0.12 0.28)
=1 if grandparent care	0.02	0.06	0.00	0.02	(-0.10 0.14)	0.01	0.06	0.00	0.01	(-0.11 0.13)
<i>Maternal employment (t - 1)</i>										
=1 if working part-time	0.06	0.06	0.00	0.06	(-0.06 0.17)	0.07	0.06	0.00	0.07	(-0.04 0.19)
=1 if working full-time	0.13	0.12	0.00	0.14	(-0.11 0.38)	0.19	0.12	0.00	0.19	(-0.04 0.42)
<i>How long mother breastfed child</i>										
=1 if at least 6 months	-0.29	0.07	0.00	-0.29	(-0.43 -0.15)	-0.28	0.07	0.00	-0.28	(-0.42 -0.15)
<i>If child is naughty...</i>										

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Table A.3.101 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.26	0.23	0.00	0.26	(-0.19 0.70)	0.50	0.22	0.00	0.50	(0.08 0.93)
=1 if mother tells child off	0.64	0.06	0.00	0.64	(0.53 0.75)	0.63	0.06	0.00	0.63	(0.52 0.74)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.59	0.10	0.00	-0.58	(-0.78 -0.40)	-0.59	0.09	0.00	-0.59	(-0.77 -0.41)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.08	0.08	0.00	0.08	(-0.07 0.23)	0.13	0.07	0.00	0.13	(-0.01 0.28)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.41	0.14	0.00	-0.41	(-0.67 -0.14)	-0.45	0.13	0.00	-0.45	(-0.72 -0.20)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.07	0.06	0.00	0.07	(-0.05 0.19)	0.05	0.06	0.00	0.05	(-0.07 0.17)
<i>Maternal mental health</i>										
=1 if high distress	0.72	0.18	0.00	0.72	(0.37 1.08)	0.74	0.17	0.00	0.74	(0.40 1.08)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.17	0.08	0.00	0.17	(0.01 0.34)	0.17	0.08	0.00	0.17	(0.01 0.32)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.05	0.07	0.00	-0.05	(-0.19 0.08)	-0.03	0.07	0.00	-0.03	(-0.15 0.10)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.31	0.12	0.00	0.31	(0.08 0.54)	0.25	0.12	0.00	0.25	(0.02 0.47)
=1 if rented (housing association or private)/ other	0.21	0.09	0.00	0.20	(0.02 0.39)	0.26	0.09	0.00	0.26	(0.08 0.44)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.04	0.15	0.00	-0.04	(-0.33 0.25)	-0.00	0.14	0.00	-0.00	(-0.28 0.28)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.10	0.12	0.00	0.10	(-0.13 0.34)	0.10	0.12	0.00	0.10	(-0.14 0.34)
=1 if managerial/ professional occupation	-0.18	0.07	0.00	-0.18	(-0.33 -0.04)	-0.18	0.07	0.00	-0.18	(-0.33 -0.04)
=1 if technical, semi-routine or routine occupation	0.08	0.07	0.00	0.08	(-0.05 0.21)	0.08	0.07	0.00	0.08	(-0.05 0.21)
=1 if can't remember or father died	0.18	0.12	0.00	0.18	(-0.06 0.41)	0.17	0.12	0.00	0.17	(-0.06 0.41)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	0.19	0.12	0.00	0.19	(-0.04 0.41)	0.16	0.11	0.00	0.16	(-0.06 0.38)
Hyperactivity Risk Factors										
<i>Gestational age</i>										
=1 if gestational age < 37 weeks	-0.07	0.13	0.00	-0.07	(-0.32 0.19)	-0.15	0.12	0.00	-0.15	(-0.39 0.09)
<i>Maternal mental health (age 1)</i>										
=1 if increased risk of depression/ anxiety	0.16	0.08	0.00	0.16	(-0.01 0.33)	0.10	0.08	0.00	0.10	(-0.06 0.26)
<i>Alcohol consumption during pregnancy</i>										
=1 if 1-2 times per month	-0.05	0.09	0.00	-0.05	(-0.23 0.13)	-0.05	0.09	0.00	-0.05	(-0.23 0.12)
=1 if at least once a week	-0.13	0.09	0.00	-0.13	(-0.30 0.05)	-0.14	0.09	0.00	-0.14	(-0.30 0.03)
<i>Smoking during pregnancy</i>										
=1 if mother smoked during pregnancy	0.02	0.09	0.00	0.02	(-0.15 0.18)	0.01	0.08	0.00	0.01	(-0.15 0.18)
<i>Smoking in the same room as child</i>										
=1 if anyone smokes in same room as child (age 1)	0.22	0.10	0.00	0.22	(0.02 0.42)	0.22	0.10	0.00	0.22	(0.03 0.41)
=1 if anyone smokes in same room as child (age 3)	0.07	0.09	0.00	0.06	(-0.11 0.24)	0.08	0.09	0.00	0.08	(-0.09 0.25)

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Table A.3.101 – continued from previous page

	SDQ ES					SDQ CP				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
<i>Maternal attachment</i>										
Condon scale score (age 1)	-0.12	0.03	0.00	-0.12	(-0.18 -0.06)	-0.09	0.03	0.00	-0.09	(-0.15 -0.03)
<i>Child-parent relationship</i>										
Condon scale score (age 3)	-0.59	0.03	0.00	-0.59	(-0.65 -0.53)	-0.63	0.03	0.00	-0.63	(-0.69 -0.57)
<i>Maltreatment of children</i>										
Straus's conflict tactics scale (age 3)	0.13	0.03	0.00	0.13	(0.07 0.19)	0.15	0.03	0.00	0.15	(0.09 0.21)
constant	5.25	0.65	0.01	5.25	(3.97 6.56)	5.49	0.64	0.01	5.50	(4.23 6.75)
σ_τ	1.74	0.02	0.00	1.74	(1.70 1.78)	1.72	0.02	0.00	1.72	(1.68 1.77)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.102: Bayesian Estimates: SDQ PR/ PB and SDQ HA (Eq. 1, LP, Age 7)

	SDQ PR					SDQ PB					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)											
hyperactivity/inattention	0.11	0.03	0.00	0.11	(0.06 0.17)	-0.15	0.03	0.00	-0.15	(-0.20 -0.10)	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.07	0.07	0.00	-0.07	(-0.21 0.07)	-0.15	0.07	0.00	-0.15	(-0.29 -0.00)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.04	0.07	0.00	0.04	(-0.10 0.19)	-0.00	0.07	0.00	-0.01	(-0.15 0.14)	
=1 if NVQ level 3	0.04	0.08	0.00	0.04	(-0.13 0.20)	0.06	0.08	0.00	0.06	(-0.10 0.23)	
=1 if overseas qual. only	0.10	0.20	0.00	0.10	(-0.29 0.48)	-0.10	0.20	0.00	-0.10	(-0.48 0.29)	
=1 if none of these	0.22	0.11	0.00	0.22	(-0.01 0.43)	-0.07	0.11	0.00	-0.07	(-0.29 0.14)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	-0.18	0.11	0.00	-0.18	(-0.40 0.04)	0.12	0.11	0.00	0.13	(-0.10 0.35)	
=1 if 25 to 29 years	-0.10	0.10	0.00	-0.10	(-0.30 0.11)	0.09	0.10	0.00	0.09	(-0.10 0.29)	
=1 if 30 to 34 years	-0.09	0.10	0.00	-0.09	(-0.29 0.11)	0.10	0.10	0.00	0.10	(-0.10 0.30)	
<i>Child demography</i>											
=1 if female	0.04	0.06	0.00	0.04	(-0.08 0.15)	0.21	0.06	0.00	0.21	(0.09 0.32)	
age (years)	0.04	0.09	0.00	0.04	(-0.14 0.22)	0.13	0.09	0.00	0.13	(-0.05 0.31)	
=1 if ethnicity is non-white	0.03	0.11	0.00	0.03	(-0.17 0.24)	0.23	0.11	0.00	0.23	(0.02 0.43)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.10	0.12	0.00	0.10	(-0.13 0.33)	0.17	0.12	0.00	0.17	(-0.06 0.40)	
<i>Size of household</i>											
log of hh size incl. cm	-0.11	0.11	0.00	-0.11	(-0.33 0.10)	-0.34	0.11	0.00	-0.34	(-0.56 -0.12)	
<i>Number of older siblings</i>											
=1 if no older siblings	0.21	0.07	0.00	0.21	(0.07 0.36)	-0.01	0.07	0.00	-0.01	(-0.15 0.13)	
=1 if two or more older siblings	0.09	0.09	0.00	0.09	(-0.08 0.26)	0.10	0.09	0.00	0.10	(-0.07 0.26)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.01	0.16	0.00	0.01	(-0.30 0.32)	0.15	0.16	0.00	0.15	(-0.16 0.47)	
<i>Country where interview took place</i>											
=1 if wales	0.11	0.30	0.00	0.11	(-0.49 0.69)	-0.02	0.30	0.00	-0.02	(-0.61 0.57)	
=1 if nireland	-0.20	0.50	0.01	-0.20	(-1.19 0.77)	-0.36	0.49	0.01	-0.36	(-1.33 0.60)	
=1 if scotland	0.15	0.32	0.00	0.15	(-0.46 0.78)	-0.32	0.31	0.00	-0.33	(-0.93 0.30)	
Time and Care											
<i>Time mother spents with child</i>											
=1 if at least just enough	-0.10	0.06	0.00	-0.10	(-0.21 0.02)	0.01	0.06	0.00	0.01	(-0.11 0.12)	
<i>Childcare</i>											
=1 if formal childcare	0.27	0.11	0.00	0.27	(0.05 0.49)	-0.11	0.11	0.00	-0.11	(-0.32 0.11)	
=1 if informal/ other childcare	0.08	0.09	0.00	0.08	(-0.10 0.25)	0.00	0.09	0.00	0.00	(-0.17 0.18)	
=1 if grandparent care	-0.00	0.07	0.00	-0.00	(-0.14 0.13)	0.05	0.07	0.00	0.05	(-0.08 0.18)	
<i>Maternal employment ($t - 1$)</i>											
=1 if working part-time	-0.10	0.07	0.00	-0.10	(-0.23 0.03)	0.05	0.07	0.00	0.06	(-0.08 0.19)	
=1 if working full-time	-0.06	0.13	0.00	-0.06	(-0.32 0.20)	0.11	0.13	0.00	0.11	(-0.14 0.37)	
<i>How long mother breastfed child</i>											

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Table A.3.102 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.02	0.09	0.00	0.02	(-0.16 0.19)	0.02	0.09	0.00	0.02	(-0.16 0.20)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.14	0.26	0.00	0.14	(-0.37 0.65)	-0.44	0.27	0.00	-0.44	(-0.95 0.08)
=1 if mother tells child off	-0.02	0.06	0.00	-0.02	(-0.13 0.09)	-0.19	0.06	0.00	-0.19	(-0.30 -0.08)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.00	0.09	0.00	-0.01	(-0.18 0.17)	0.19	0.09	0.00	0.19	(0.01 0.37)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.20	0.07	0.00	0.20	(0.05 0.34)	-0.10	0.07	0.00	-0.10	(-0.25 0.04)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.15	0.09	0.00	-0.15	(-0.32 0.03)	0.22	0.09	0.00	0.22	(0.05 0.40)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.08	0.06	0.00	0.08	(-0.04 0.20)	0.04	0.06	0.00	0.05	(-0.08 0.16)
<i>Maternal mental health</i>										
=1 if high distress	0.47	0.12	0.00	0.47	(0.24 0.70)	0.10	0.12	0.00	0.10	(-0.13 0.33)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.03	0.06	0.00	0.03	(-0.08 0.15)	0.03	0.06	0.00	0.03	(-0.09 0.15)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.23	0.08	0.00	-0.23	(-0.38 -0.08)	0.04	0.08	0.00	0.05	(-0.10 0.19)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.12	0.09	0.00	0.12	(-0.06 0.29)	-0.12	0.09	0.00	-0.11	(-0.29 0.06)
=1 if rented (housing association or private)/ other	0.10	0.08	0.00	0.10	(-0.06 0.25)	0.02	0.08	0.00	0.02	(-0.13 0.17)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.09	0.11	0.00	-0.09	(-0.30 0.12)	0.08	0.11	0.00	0.08	(-0.13 0.29)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	-0.22	0.10	0.00	-0.22	(-0.42 -0.03)	-0.05	0.10	0.00	-0.05	(-0.25 0.14)
=1 if managerial/ professional occupation	0.04	0.09	0.00	0.04	(-0.13 0.21)	-0.16	0.09	0.00	-0.16	(-0.33 0.01)
=1 if technical, semi-routine or routine occupation	-0.00	0.07	0.00	-0.00	(-0.14 0.13)	0.07	0.07	0.00	0.07	(-0.06 0.20)
=1 if can't remember or father died	0.08	0.11	0.00	0.08	(-0.13 0.30)	0.02	0.11	0.00	0.02	(-0.20 0.24)
constant	-0.09	0.70	0.01	-0.09	(-1.49 1.29)	0.02	0.69	0.01	0.02	(-1.35 1.37)
σ_ϵ	0.91	0.04	0.00	0.91	(0.81 0.97)	0.88	0.04	0.00	0.88	(0.78 0.95)
σ_ζ	0.27	0.13	0.01	0.27	(0.04 0.52)	0.35	0.11	0.01	0.36	(0.12 0.57)
$\rho_{\zeta\xi}$	-0.68	0.34	0.02	-0.79	(-0.99 0.36)	0.82	0.19	0.01	0.87	(0.33 1.00)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.103: Bayesian Estimates: SDQ PR/ PB and SDQ HA (Eq. 1, TP, Age 7)

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)										
hyperactivity/inattention	0.19	0.01	0.00	0.19	(0.16 0.21)	-0.21	0.01	0.00	-0.21	(-0.24 -0.18)
Standard Background Controls										
<i>Income</i>										
log of permanent family income (weekly, imp.)	-0.08	0.04	0.00	-0.09	(-0.16 -0.01)	0.03	0.04	0.00	0.03	(-0.05 0.10)
<i>Maternal education</i>										
=1 if NVQ level 1 or 2	-0.08	0.03	0.00	-0.08	(-0.14 -0.01)	0.07	0.03	0.00	0.07	(0.01 0.14)
=1 if NVQ level 3	-0.03	0.04	0.00	-0.03	(-0.11 0.04)	0.07	0.04	0.00	0.07	(-0.00 0.15)
=1 if overseas qual. only	0.05	0.12	0.00	0.04	(-0.19 0.27)	-0.09	0.12	0.00	-0.08	(-0.32 0.15)
=1 if none of these	-0.19	0.07	0.00	-0.19	(-0.33 -0.05)	0.16	0.07	0.00	0.16	(0.02 0.30)
<i>Mother's age at birth</i>										
=1 if less than 25 years	0.04	0.05	0.00	0.04	(-0.07 0.14)	0.07	0.05	0.00	0.07	(-0.03 0.18)
=1 if 25 to 29 years	-0.04	0.04	0.00	-0.04	(-0.12 0.04)	0.08	0.04	0.00	0.08	(-0.00 0.16)
=1 if 30 to 34 years	-0.06	0.04	0.00	-0.06	(-0.13 0.02)	0.02	0.04	0.00	0.02	(-0.06 0.09)
<i>Child demography</i>										
=1 if female	0.04	0.03	0.00	0.04	(-0.02 0.09)	0.19	0.03	0.00	0.19	(0.14 0.25)
age (years)	-0.06	0.05	0.00	-0.06	(-0.16 0.04)	0.06	0.05	0.00	0.06	(-0.04 0.16)
=1 if ethnicity is non-white	0.14	0.06	0.00	0.14	(0.02 0.26)	0.09	0.06	0.00	0.09	(-0.04 0.21)
<i>Child's health endowment</i>										
=1 if birth weight < 2500g	0.12	0.06	0.00	0.12	(-0.00 0.24)	0.06	0.06	0.00	0.06	(-0.06 0.18)
<i>Size of household</i>										
log of hh size incl. cm	0.05	0.08	0.00	0.05	(-0.11 0.20)	-0.29	0.08	0.00	-0.29	(-0.45 -0.14)
<i>Number of older siblings</i>										
=1 if no older siblings	0.12	0.03	0.00	0.12	(0.06 0.18)	-0.01	0.03	0.00	-0.01	(-0.07 0.05)
=1 if two or more older siblings	0.09	0.04	0.00	0.09	(0.01 0.17)	-0.01	0.04	0.00	-0.01	(-0.09 0.07)
<i>Respondent's relationship to child</i>										
=1 if natural mother of child	-0.10	0.10	0.00	-0.10	(-0.30 0.11)	0.10	0.10	0.00	0.10	(-0.10 0.31)
<i>Country where interview took place</i>										
=1 if wales	-0.07	0.13	0.00	-0.07	(-0.33 0.18)	-0.01	0.13	0.00	-0.01	(-0.26 0.25)
=1 if nireland	-0.11	0.28	0.00	-0.10	(-0.66 0.43)	0.38	0.29	0.00	0.38	(-0.20 0.93)
=1 if scotland	-0.06	0.15	0.00	-0.06	(-0.36 0.24)	-0.13	0.16	0.00	-0.13	(-0.44 0.18)
Time and Care										
<i>Time mother spends with child</i>										
=1 if at least just enough	-0.04	0.03	0.00	-0.05	(-0.10 0.01)	-0.03	0.03	0.00	-0.03	(-0.08 0.02)
<i>Childcare</i>										
=1 if formal childcare	-0.11	0.06	0.00	-0.11	(-0.22 0.00)	-0.01	0.06	0.00	-0.01	(-0.12 0.10)
=1 if informal/ other childcare	-0.02	0.05	0.00	-0.02	(-0.11 0.07)	0.01	0.05	0.00	0.01	(-0.08 0.10)
=1 if grandparent care	-0.04	0.03	0.00	-0.04	(-0.10 0.03)	0.03	0.03	0.00	0.03	(-0.03 0.09)
<i>Maternal employment ($t - 1$)</i>										
=1 if working part-time	-0.07	0.03	0.00	-0.07	(-0.12 -0.01)	0.03	0.03	0.00	0.03	(-0.03 0.09)
=1 if working full-time	-0.09	0.06	0.00	-0.09	(-0.21 0.03)	0.08	0.06	0.00	0.09	(-0.04 0.20)
<i>How long mother breastfed child</i>										

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Table A.3.103 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	-0.02	0.03	0.00	-0.02	(-0.08 0.05)	-0.04	0.03	0.00	-0.04	(-0.11 0.03)
<i>If child is naughty...</i>										
=1 if mother smacks child	0.22	0.14	0.00	0.22	(-0.06 0.50)	0.04	0.14	0.00	0.04	(-0.24 0.31)
=1 if mother tells child off	0.00	0.03	0.00	0.00	(-0.05 0.05)	-0.18	0.03	0.00	-0.18	(-0.23 -0.12)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.24	0.05	0.00	-0.24	(-0.34 -0.15)	0.05	0.05	0.00	0.05	(-0.05 0.14)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.06	0.04	0.00	0.06	(-0.01 0.13)	0.01	0.04	0.00	0.01	(-0.06 0.08)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.00	0.05	0.00	-0.00	(-0.09 0.09)	0.05	0.05	0.00	0.05	(-0.04 0.14)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.09	0.03	0.00	0.09	(0.04 0.15)	0.03	0.03	0.00	0.03	(-0.03 0.09)
<i>Maternal mental health</i>										
=1 if high distress	0.49	0.09	0.00	0.49	(0.32 0.66)	-0.07	0.09	0.00	-0.07	(-0.25 0.10)
<i>Does mother currently smoke</i>										
=1 if currently smokes	-0.01	0.03	0.00	-0.01	(-0.08 0.06)	0.01	0.03	0.00	0.01	(-0.06 0.08)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.07	0.03	0.00	-0.07	(-0.13 -0.01)	-0.00	0.03	0.00	-0.00	(-0.07 0.06)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.05	0.06	0.00	0.05	(-0.06 0.17)	-0.02	0.06	0.00	-0.02	(-0.14 0.10)
=1 if rented (housing association or private)/ other	0.10	0.05	0.00	0.10	(0.01 0.20)	0.08	0.05	0.00	0.08	(-0.01 0.17)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.21	0.06	0.00	-0.22	(-0.34 -0.09)	0.17	0.06	0.00	0.17	(0.04 0.29)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.09	0.06	0.00	0.09	(-0.03 0.20)	0.11	0.06	0.00	0.11	(-0.00 0.23)
=1 if managerial/ professional occupation	0.02	0.04	0.00	0.02	(-0.05 0.09)	-0.03	0.04	0.00	-0.03	(-0.11 0.04)
=1 if technical, semi-routine or routine occupation	0.02	0.03	0.00	0.02	(-0.05 0.08)	0.01	0.03	0.00	0.01	(-0.05 0.07)
=1 if can't remember or father died	-0.02	0.06	0.00	-0.02	(-0.13 0.10)	-0.08	0.06	0.00	-0.08	(-0.20 0.04)
constant	0.88	0.45	0.00	0.88	(0.01 1.76)	0.01	0.45	0.00	0.02	(-0.85 0.89)
σ_ϵ	0.81	0.03	0.00	0.81	(0.74 0.88)	0.78	0.04	0.00	0.78	(0.71 0.85)
σ_ζ	0.52	0.06	0.00	0.52	(0.38 0.64)	0.58	0.06	0.00	0.58	(0.46 0.70)
$\rho_{\zeta\xi}$	-0.93	0.06	0.00	-0.94	(-1.00 -0.77)	0.95	0.05	0.00	0.96	(0.83 1.00)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.104: Bayesian Estimates: SDQ PR/ PB and SDQ HA (Eq. 2, LP, Age 7)

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Standard Background Controls										
<i>Income</i>										
log of permanent family income (weekly, imp.)	0.00	0.16	0.00	-0.00	(-0.31 0.31)	0.05	0.16	0.00	0.05	(-0.27 0.35)
<i>Maternal education</i>										
=1 if NVQ level 1 or 2	0.34	0.17	0.00	0.34	(0.02 0.67)	0.34	0.16	0.00	0.34	(0.01 0.65)
=1 if NVQ level 3	-0.09	0.19	0.00	-0.09	(-0.46 0.28)	-0.09	0.19	0.00	-0.09	(-0.47 0.28)
=1 if overseas qual. only	0.50	0.39	0.00	0.50	(-0.28 1.27)	0.47	0.39	0.00	0.47	(-0.29 1.25)
=1 if none of these	0.50	0.24	0.00	0.50	(0.03 0.97)	0.49	0.24	0.00	0.49	(0.02 0.95)
<i>Mother's age at birth</i>										
=1 if less than 25 years	0.61	0.24	0.00	0.61	(0.15 1.08)	0.62	0.24	0.00	0.62	(0.15 1.09)
=1 if 25 to 29 years	0.43	0.22	0.00	0.43	(0.00 0.86)	0.43	0.22	0.00	0.43	(-0.01 0.85)
=1 if 30 to 34 years	0.43	0.22	0.00	0.43	(-0.00 0.87)	0.43	0.22	0.00	0.43	(0.00 0.87)
<i>Child demography</i>										
=1 if female	-0.51	0.12	0.00	-0.51	(-0.76 -0.27)	-0.52	0.12	0.00	-0.52	(-0.76 -0.27)
age (years)	0.20	0.19	0.00	0.19	(-0.17 0.57)	0.18	0.19	0.00	0.18	(-0.20 0.55)
=1 if ethnicity is non-white	0.27	0.23	0.00	0.27	(-0.19 0.72)	0.27	0.23	0.00	0.27	(-0.19 0.73)
<i>Child's health endowment</i>										
=1 if birth weight < 2500g	0.48	0.31	0.00	0.48	(-0.12 1.07)	0.44	0.30	0.00	0.44	(-0.16 1.02)
<i>Size of household</i>										
log of hh size incl. cm	-0.17	0.23	0.00	-0.17	(-0.61 0.28)	-0.19	0.23	0.00	-0.19	(-0.64 0.26)
<i>Number of older siblings</i>										
=1 if no older siblings	0.22	0.16	0.00	0.22	(-0.09 0.53)	0.21	0.16	0.00	0.21	(-0.10 0.53)
=1 if two or more older siblings	0.39	0.19	0.00	0.39	(0.01 0.77)	0.39	0.19	0.00	0.39	(0.02 0.77)
<i>Respondent's relationship to child</i>										
=1 if natural mother of child	0.18	0.40	0.00	0.18	(-0.60 0.96)	0.22	0.40	0.00	0.22	(-0.56 0.99)
<i>Country where interview took place</i>										
=1 if wales	-0.09	0.47	0.00	-0.09	(-1.01 0.82)	-0.12	0.47	0.00	-0.12	(-1.04 0.80)
=1 if nireland	0.28	0.58	0.01	0.28	(-0.86 1.41)	0.30	0.58	0.01	0.30	(-0.83 1.45)
=1 if scotland	0.52	0.51	0.01	0.52	(-0.48 1.53)	0.55	0.50	0.00	0.55	(-0.44 1.52)
Time and Care										
<i>Time mother spends with child</i>										
=1 if at least just enough	-0.20	0.14	0.00	-0.20	(-0.47 0.08)	-0.20	0.14	0.00	-0.20	(-0.47 0.07)
<i>Childcare</i>										
=1 if formal childcare	0.18	0.27	0.00	0.18	(-0.35 0.70)	0.17	0.26	0.00	0.17	(-0.35 0.67)
=1 if informal/ other childcare	-0.01	0.22	0.00	-0.01	(-0.44 0.43)	0.02	0.22	0.00	0.02	(-0.41 0.44)
=1 if grandparent care	-0.02	0.16	0.00	-0.02	(-0.32 0.28)	-0.06	0.15	0.00	-0.06	(-0.36 0.24)
<i>Maternal employment (t - 1)</i>										
=1 if working part-time	0.24	0.15	0.00	0.24	(-0.04 0.53)	0.27	0.15	0.00	0.27	(-0.02 0.55)
=1 if working full-time	0.16	0.30	0.00	0.15	(-0.44 0.75)	0.13	0.30	0.00	0.13	(-0.48 0.72)
<i>How long mother breastfed child</i>										
=1 if at least 6 months	-0.20	0.20	0.00	-0.20	(-0.59 0.18)	-0.21	0.20	0.00	-0.21	(-0.60 0.19)
<i>If child is naughty...</i>										

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Table A.3.104 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	1.28	0.41	0.00	1.28	(0.49 2.09)	1.26	0.40	0.00	1.26	(0.47 2.03)
=1 if mother tells child off	0.75	0.14	0.00	0.75	(0.49 1.02)	0.73	0.13	0.00	0.73	(0.47 1.00)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.18	0.19	0.00	-0.18	(-0.56 0.19)	-0.20	0.19	0.00	-0.20	(-0.57 0.17)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.28	0.16	0.00	0.29	(-0.02 0.60)	0.27	0.16	0.00	0.27	(-0.04 0.57)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.31	0.26	0.00	-0.31	(-0.83 0.20)	-0.29	0.26	0.00	-0.29	(-0.79 0.22)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.05	0.15	0.00	0.05	(-0.24 0.34)	0.02	0.15	0.00	0.02	(-0.26 0.31)
<i>Maternal mental health</i>										
=1 if high distress	0.22	0.28	0.00	0.22	(-0.34 0.77)	0.19	0.28	0.00	0.19	(-0.37 0.74)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.09	0.15	0.00	0.09	(-0.20 0.38)	0.06	0.15	0.00	0.06	(-0.22 0.34)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	0.02	0.18	0.00	0.02	(-0.34 0.38)	0.01	0.18	0.00	0.01	(-0.35 0.37)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.04	0.19	0.00	0.04	(-0.34 0.42)	0.06	0.19	0.00	0.06	(-0.33 0.43)
=1 if rented (housing association or private)/ other	0.16	0.17	0.00	0.16	(-0.18 0.49)	0.19	0.17	0.00	0.19	(-0.14 0.51)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.15	0.25	0.00	-0.15	(-0.64 0.35)	-0.10	0.25	0.00	-0.11	(-0.58 0.38)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.23	0.22	0.00	0.23	(-0.21 0.66)	0.22	0.22	0.00	0.22	(-0.20 0.65)
=1 if managerial/ professional occupation	-0.20	0.20	0.00	-0.20	(-0.59 0.20)	-0.19	0.19	0.00	-0.19	(-0.57 0.19)
=1 if technical, semi-routine or routine occupation	0.03	0.15	0.00	0.03	(-0.26 0.32)	0.02	0.15	0.00	0.02	(-0.27 0.32)
=1 if can't remember or father died	0.27	0.24	0.00	0.27	(-0.20 0.75)	0.28	0.24	0.00	0.28	(-0.20 0.76)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	0.15	0.21	0.00	0.15	(-0.26 0.55)	0.12	0.21	0.00	0.12	(-0.28 0.53)
Hyperactivity Risk Factors										
<i>Gestational age</i>										
=1 if gestational age < 37 weeks	0.23	0.28	0.00	0.23	(-0.31 0.79)	0.29	0.27	0.00	0.29	(-0.24 0.82)
<i>Maternal mental health (age 1)</i>										
=1 if increased risk of depression/ anxiety	0.32	0.17	0.00	0.32	(-0.00 0.66)	0.26	0.17	0.00	0.26	(-0.08 0.60)
<i>Alcohol consumption during pregnancy</i>										
=1 if 1-2 times per month	0.17	0.22	0.00	0.17	(-0.27 0.61)	0.20	0.23	0.00	0.21	(-0.24 0.64)
=1 if at least once a week	-0.18	0.22	0.00	-0.18	(-0.62 0.26)	-0.11	0.23	0.00	-0.11	(-0.55 0.34)
<i>Smoking during pregnancy</i>										
=1 if mother smoked during pregnancy	0.19	0.15	0.00	0.19	(-0.12 0.49)	0.20	0.15	0.00	0.20	(-0.10 0.51)
<i>Smoking in the same room as child</i>										
=1 if anyone smokes in same room as child (age 1)	-0.01	0.18	0.00	-0.01	(-0.36 0.35)	-0.00	0.18	0.00	-0.00	(-0.35 0.34)
=1 if anyone smokes in same room as child (age 3)	0.24	0.16	0.00	0.24	(-0.07 0.55)	0.25	0.16	0.00	0.25	(-0.06 0.57)

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Table A.3.104 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
<i>Maternal attachment</i>										
Condon scale score (age 1)	0.02	0.07	0.00	0.02	(-0.11 0.16)	0.05	0.07	0.00	0.05	(-0.08 0.18)
<i>Child-parent relationship</i>										
Condon scale score (age 3)	-0.56	0.07	0.00	-0.56	(-0.70 -0.42)	-0.59	0.07	0.00	-0.59	(-0.73 -0.44)
<i>Maltreatment of children</i>										
Straus's conflict tactics scale (age 3)	0.09	0.07	0.00	0.09	(-0.05 0.24)	0.10	0.07	0.00	0.10	(-0.04 0.24)
constant	1.42	0.87	0.01	1.44	(-0.32 3.12)	1.48	0.88	0.01	1.48	(-0.23 3.21)
σ_τ	1.91	0.05	0.00	1.91	(1.82 2.01)	1.91	0.05	0.00	1.91	(1.81 2.01)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/self-regulation; CSR EMO: CSR emotional disregulation; CSR COO: CSR cooperation.

Table A.3.105: Bayesian Estimates: SDQ PR/ PB and SDQ HA (Eq. 2, TP, Age 7)

	SDQ PR					SDQ PB					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls											
<i>Income</i>											
log of permanent family income (weekly, imp.)	-0.13	0.07	0.00	-0.13	(-0.28 0.02)	-0.12	0.07	0.00	-0.12	(-0.27 0.02)	
<i>Maternal education</i>											
=1 if NVQ level 1 or 2	0.28	0.07	0.00	0.28	(0.15 0.42)	0.29	0.07	0.00	0.29	(0.16 0.43)	
=1 if NVQ level 3	0.29	0.08	0.00	0.29	(0.14 0.44)	0.28	0.08	0.00	0.28	(0.13 0.44)	
=1 if overseas qual. only	0.37	0.23	0.00	0.37	(-0.10 0.82)	0.32	0.24	0.00	0.32	(-0.13 0.79)	
=1 if none of these	0.36	0.14	0.00	0.36	(0.07 0.64)	0.35	0.14	0.00	0.35	(0.08 0.63)	
<i>Mother's age at birth</i>											
=1 if less than 25 years	0.26	0.11	0.00	0.26	(0.05 0.47)	0.25	0.11	0.00	0.25	(0.04 0.46)	
=1 if 25 to 29 years	0.02	0.09	0.00	0.02	(-0.15 0.19)	0.01	0.08	0.00	0.01	(-0.15 0.17)	
=1 if 30 to 34 years	0.03	0.08	0.00	0.03	(-0.12 0.18)	0.02	0.08	0.00	0.02	(-0.13 0.17)	
<i>Child demography</i>											
=1 if female	-0.55	0.05	0.00	-0.55	(-0.66 -0.44)	-0.54	0.05	0.00	-0.54	(-0.64 -0.43)	
age (years)	-0.12	0.10	0.00	-0.12	(-0.31 0.08)	-0.12	0.10	0.00	-0.12	(-0.32 0.08)	
=1 if ethnicity is non-white	0.09	0.13	0.00	0.09	(-0.16 0.34)	0.09	0.13	0.00	0.09	(-0.17 0.34)	
<i>Child's health endowment</i>											
=1 if birth weight < 2500g	0.46	0.15	0.00	0.46	(0.17 0.76)	0.48	0.15	0.00	0.48	(0.18 0.76)	
<i>Size of household</i>											
log of hh size incl. cm	-0.39	0.15	0.00	-0.39	(-0.70 -0.09)	-0.33	0.15	0.00	-0.33	(-0.63 -0.03)	
<i>Number of older siblings</i>											
=1 if no older siblings	-0.07	0.06	0.00	-0.07	(-0.19 0.06)	-0.06	0.06	0.00	-0.06	(-0.18 0.06)	
=1 if two or more older siblings	0.05	0.09	0.00	0.05	(-0.12 0.22)	0.05	0.09	0.00	0.05	(-0.12 0.22)	
<i>Respondent's relationship to child</i>											
=1 if natural mother of child	0.35	0.23	0.00	0.35	(-0.10 0.80)	0.30	0.23	0.00	0.29	(-0.15 0.75)	
<i>Country where interview took place</i>											
=1 if wales	-0.13	0.26	0.00	-0.13	(-0.65 0.37)	-0.04	0.26	0.00	-0.03	(-0.54 0.47)	
=1 if nireland	-0.09	0.44	0.00	-0.09	(-0.95 0.77)	-0.21	0.44	0.00	-0.20	(-1.07 0.64)	
=1 if scotland	-0.15	0.30	0.00	-0.15	(-0.73 0.44)	-0.16	0.30	0.00	-0.16	(-0.75 0.44)	
Time and Care											
<i>Time mother spents with child</i>											
=1 if at least just enough	-0.24	0.06	0.00	-0.24	(-0.35 -0.13)	-0.18	0.06	0.00	-0.18	(-0.29 -0.07)	
<i>Childcare</i>											
=1 if formal childcare	-0.12	0.12	0.00	-0.12	(-0.34 0.11)	-0.16	0.12	0.00	-0.16	(-0.39 0.07)	
=1 if informal/ other childcare	0.15	0.10	0.00	0.15	(-0.05 0.35)	0.07	0.10	0.00	0.07	(-0.13 0.27)	
=1 if grandparent care	-0.00	0.06	0.00	-0.00	(-0.12 0.12)	-0.01	0.06	0.00	-0.01	(-0.13 0.11)	
<i>Maternal employment (t - 1)</i>											
=1 if working part-time	0.03	0.06	0.00	0.03	(-0.09 0.14)	0.05	0.06	0.00	0.05	(-0.07 0.17)	
=1 if working full-time	0.15	0.12	0.00	0.15	(-0.09 0.39)	0.21	0.12	0.00	0.21	(-0.04 0.45)	
<i>How long mother breastfed child</i>											
=1 if at least 6 months	-0.29	0.07	0.00	-0.29	(-0.43 -0.15)	-0.29	0.07	0.00	-0.29	(-0.43 -0.16)	
<i>If child is naughty...</i>											

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Table A.3.105 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.28	0.23	0.00	0.28	(-0.18 0.74)	0.29	0.23	0.00	0.29	(-0.15 0.74)
=1 if mother tells child off	0.61	0.06	0.00	0.61	(0.50 0.73)	0.65	0.06	0.00	0.65	(0.54 0.76)
<i>Bedtime on term-time weekdays</i>										
=1 if regular bedtime	-0.59	0.10	0.00	-0.59	(-0.79 -0.40)	-0.56	0.10	0.00	-0.56	(-0.75 -0.36)
<i>Daily TV/ video consumption</i>										
=1 if more than 3 hours tv/ videos	0.10	0.08	0.00	0.10	(-0.05 0.25)	0.13	0.08	0.00	0.13	(-0.02 0.28)
<i>How often mother reads to the child</i>										
=1 if at least several times a week	-0.40	0.14	0.00	-0.40	(-0.67 -0.13)	-0.42	0.14	0.00	-0.42	(-0.69 -0.15)
Health and Health Related Behaviour										
<i>Maternal physical health</i>										
=1 if longstanding illness	0.07	0.06	0.00	0.06	(-0.06 0.19)	0.02	0.06	0.00	0.01	(-0.10 0.14)
<i>Maternal mental health</i>										
=1 if high distress	0.70	0.18	0.00	0.70	(0.34 1.06)	0.62	0.18	0.00	0.62	(0.27 0.98)
<i>Does mother currently smoke</i>										
=1 if currently smokes	0.19	0.08	0.00	0.18	(0.02 0.35)	0.13	0.08	0.00	0.14	(-0.02 0.29)
<i>How often mother drinks alcohol</i>										
=1 if at least 3 times a week	-0.03	0.07	0.00	-0.03	(-0.16 0.11)	-0.03	0.07	0.00	-0.03	(-0.16 0.11)
Other										
<i>Housing tenure</i>										
=1 if council rented	0.28	0.12	0.00	0.28	(0.04 0.51)	0.27	0.12	0.00	0.27	(0.04 0.50)
=1 if rented (housing association or private)/ other	0.22	0.09	0.00	0.22	(0.03 0.41)	0.21	0.09	0.00	0.21	(0.02 0.40)
<i>Child's fruit consumption</i>										
=1 if cm has at least one portion of fruit per day	-0.02	0.15	0.00	-0.02	(-0.31 0.27)	-0.04	0.15	0.00	-0.04	(-0.32 0.25)
<i>Maternal grandfathers' SES when respondent was aged 14</i>										
=1 if was not working	0.10	0.12	0.00	0.10	(-0.14 0.34)	0.10	0.12	0.00	0.10	(-0.14 0.34)
=1 if managerial/ professional occupation	-0.18	0.07	0.00	-0.18	(-0.33 -0.03)	-0.19	0.08	0.00	-0.19	(-0.34 -0.04)
=1 if technical, semi-routine or routine occupation	0.08	0.07	0.00	0.08	(-0.05 0.21)	0.08	0.07	0.00	0.08	(-0.05 0.21)
=1 if can't remember or father died	0.17	0.12	0.00	0.17	(-0.06 0.41)	0.18	0.12	0.00	0.18	(-0.06 0.42)
<i>Problems with damp on the wall</i>										
=1 if at least some problems	0.19	0.12	0.00	0.19	(-0.04 0.43)	0.21	0.12	0.00	0.21	(-0.02 0.44)
Hyperactivity Risk Factors										
<i>Gestational age</i>										
=1 if gestational age < 37 weeks	-0.06	0.13	0.00	-0.06	(-0.31 0.20)	-0.06	0.13	0.00	-0.06	(-0.31 0.19)
<i>Maternal mental health (age 1)</i>										
=1 if increased risk of depression/ anxiety	0.15	0.09	0.00	0.15	(-0.02 0.32)	0.12	0.08	0.00	0.12	(-0.05 0.28)
<i>Alcohol consumption during pregnancy</i>										
=1 if 1-2 times per month	-0.02	0.09	0.00	-0.02	(-0.20 0.16)	-0.00	0.09	0.00	-0.00	(-0.19 0.18)
=1 if at least once a week	-0.13	0.09	0.00	-0.13	(-0.31 0.05)	-0.11	0.09	0.00	-0.11	(-0.28 0.07)
<i>Smoking during pregnancy</i>										
=1 if mother smoked during pregnancy	-0.00	0.09	0.00	-0.00	(-0.18 0.17)	0.06	0.09	0.00	0.06	(-0.11 0.22)
<i>Smoking in the same room as child</i>										
=1 if anyone smokes in same room as child (age 1)	0.24	0.10	0.00	0.24	(0.04 0.44)	0.22	0.10	0.00	0.22	(0.02 0.42)
=1 if anyone smokes in same room as child (age 3)	0.09	0.09	0.00	0.09	(-0.08 0.27)	0.05	0.09	0.00	0.05	(-0.12 0.22)

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Table A.3.105 – continued from previous page

	SDQ PR					SDQ PB				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
<i>Maternal attachment</i>										
Condon scale score (age 1)	-0.08	0.03	0.00	-0.08	(-0.14 -0.02)	-0.08	0.03	0.00	-0.08	(-0.14 -0.02)
<i>Child-parent relationship</i>										
Condon scale score (age 3)	-0.60	0.03	0.00	-0.60	(-0.66 -0.53)	-0.60	0.03	0.00	-0.60	(-0.67 -0.54)
<i>Maltreatment of children</i>										
Straus's conflict tactics scale (age 3)	0.13	0.03	0.00	0.13	(0.06 0.19)	0.14	0.03	0.00	0.14	(0.08 0.20)
constant	5.39	0.66	0.01	5.39	(4.11 6.68)	5.40	0.65	0.01	5.40	(4.12 6.69)
σ_τ	1.74	0.02	0.00	1.74	(1.70 1.79)	1.74	0.02	0.00	1.74	(1.70 1.78)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.106: Bayesian Estimates: CSR and # Chronic Conditions (Eq. 1, LP, Age 7)

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
number of health problems	-0.04	0.09	0.00	-0.04	(-0.25 0.12)	0.10	0.08	0.00	0.09	(-0.04 0.28)	-0.02	0.08	0.00	-0.02	(-0.17 0.15)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.02	0.07	0.00	0.02	(-0.11 0.15)	-0.08	0.06	0.00	-0.08	(-0.20 0.04)	-0.02	0.06	0.00	-0.02	(-0.14 0.11)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.19	0.07	0.00	-0.19	(-0.32 -0.05)	0.22	0.06	0.00	0.23	(0.10 0.35)	-0.14	0.07	0.00	-0.14	(-0.27 -0.01)
=1 if NVQ level 3	0.03	0.08	0.00	0.03	(-0.13 0.18)	0.10	0.07	0.00	0.10	(-0.04 0.24)	-0.06	0.08	0.00	-0.06	(-0.21 0.09)
=1 if overseas qual. only	-0.37	0.17	0.00	-0.37	(-0.71 -0.03)	0.33	0.16	0.00	0.33	(0.02 0.65)	-0.34	0.17	0.00	-0.34	(-0.67 -0.01)
=1 if none of these	-0.17	0.10	0.00	-0.17	(-0.36 0.03)	0.24	0.09	0.00	0.24	(0.05 0.42)	-0.20	0.10	0.00	-0.20	(-0.39 -0.01)
<i>Mother's age at birth</i>															
=1 if less than 25 years	0.17	0.10	0.00	0.17	(-0.03 0.36)	0.40	0.09	0.00	0.40	(0.22 0.58)	0.02	0.10	0.00	0.02	(-0.17 0.21)
=1 if 25 to 29 years	0.04	0.09	0.00	0.04	(-0.14 0.22)	0.29	0.08	0.00	0.29	(0.13 0.46)	0.02	0.09	0.00	0.02	(-0.15 0.19)
=1 if 30 to 34 years	-0.08	0.09	0.00	-0.08	(-0.26 0.10)	0.19	0.08	0.00	0.19	(0.03 0.36)	0.05	0.09	0.00	0.05	(-0.13 0.22)
<i>Child demography</i>															
=1 if female	0.14	0.05	0.00	0.14	(0.04 0.24)	-0.16	0.05	0.00	-0.16	(-0.25 -0.07)	0.17	0.05	0.00	0.17	(0.08 0.27)
age (years)	0.20	0.08	0.00	0.21	(0.04 0.37)	-0.14	0.08	0.00	-0.14	(-0.29 0.01)	-0.00	0.08	0.00	-0.00	(-0.16 0.16)
=1 if ethnicity is non-white	0.25	0.09	0.00	0.25	(0.07 0.44)	-0.03	0.09	0.00	-0.03	(-0.20 0.14)	-0.08	0.09	0.00	-0.08	(-0.26 0.11)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.40	0.10	0.00	-0.40	(-0.60 -0.21)	0.21	0.09	0.00	0.21	(0.04 0.40)	-0.21	0.09	0.00	-0.21	(-0.40 -0.02)
<i>Size of household</i>															
log of hh size incl. cm	0.04	0.10	0.00	0.04	(-0.16 0.24)	0.25	0.09	0.00	0.25	(0.07 0.43)	0.06	0.10	0.00	0.06	(-0.13 0.25)
<i>Number of older siblings</i>															
=1 if no older siblings	-0.01	0.06	0.00	-0.01	(-0.14 0.11)	0.06	0.06	0.00	0.06	(-0.05 0.18)	0.01	0.06	0.00	0.01	(-0.12 0.13)
=1 if two or more older siblings	0.11	0.08	0.00	0.11	(-0.04 0.27)	-0.11	0.07	0.00	-0.11	(-0.25 0.03)	-0.04	0.07	0.00	-0.04	(-0.19 0.11)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	-0.05	0.15	0.00	-0.05	(-0.35 0.25)	-0.07	0.14	0.00	-0.07	(-0.35 0.20)	-0.05	0.15	0.00	-0.05	(-0.34 0.24)
<i>Country where interview took place</i>															
=1 if wales	0.33	0.26	0.00	0.33	(-0.17 0.85)	-0.01	0.24	0.00	-0.01	(-0.48 0.47)	-0.09	0.25	0.00	-0.08	(-0.58 0.40)
=1 if nireland	-0.66	0.51	0.01	-0.66	(-1.64 0.35)	0.33	0.49	0.00	0.33	(-0.63 1.28)	-0.52	0.50	0.00	-0.51	(-1.49 0.44)
=1 if scotland	0.22	0.30	0.00	0.22	(-0.38 0.82)	0.11	0.29	0.00	0.11	(-0.44 0.67)	-0.04	0.29	0.00	-0.04	(-0.62 0.53)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	0.16	0.06	0.00	0.16	(0.05 0.27)	-0.05	0.05	0.00	-0.05	(-0.16 0.05)	0.02	0.05	0.00	0.02	(-0.09 0.12)
<i>Childcare</i>															
=1 if formal childcare	0.13	0.11	0.00	0.13	(-0.08 0.34)	0.17	0.10	0.00	0.17	(-0.02 0.36)	-0.02	0.10	0.00	-0.02	(-0.22 0.19)
=1 if informal/ other childcare	0.06	0.08	0.00	0.06	(-0.10 0.22)	0.02	0.07	0.00	0.02	(-0.12 0.17)	-0.17	0.08	0.00	-0.17	(-0.32 -0.01)
=1 if grandparent care	0.09	0.06	0.00	0.09	(-0.03 0.22)	-0.01	0.06	0.00	-0.01	(-0.12 0.11)	0.02	0.06	0.00	0.02	(-0.10 0.14)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	0.07	0.06	0.00	0.07	(-0.06 0.19)	-0.09	0.06	0.00	-0.09	(-0.20 0.02)	0.06	0.06	0.00	0.06	(-0.06 0.17)
=1 if working full-time	0.01	0.12	0.00	0.01	(-0.23 0.25)	-0.02	0.11	0.00	-0.02	(-0.23 0.21)	0.10	0.12	0.00	0.10	(-0.13 0.33)
<i>How long mother breastfed child</i>															

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Table A.3.106 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months <i>If child is naughty...</i>	-0.10	0.08	0.00	-0.10	(-0.26 0.06)	-0.09	0.07	0.00	-0.09	(-0.23 0.06)	0.16	0.08	0.00	0.16	(0.01 0.31)
=1 if mother smacks child	-0.19	0.22	0.00	-0.19	(-0.62 0.24)	0.57	0.20	0.00	0.57	(0.16 0.96)	-1.01	0.21	0.00	-1.01	(-1.43 -0.59)
=1 if mother tells child off	-0.23	0.05	0.00	-0.23	(-0.33 -0.14)	0.57	0.05	0.00	0.57	(0.48 0.66)	-0.46	0.05	0.00	-0.46	(-0.56 -0.37)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.18	0.08	0.00	0.18	(0.02 0.33)	-0.12	0.07	0.00	-0.12	(-0.27 0.02)	0.13	0.08	0.00	0.13	(-0.03 0.28)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.16	0.07	0.00	-0.16	(-0.30 -0.03)	0.09	0.06	0.00	0.09	(-0.02 0.21)	-0.07	0.06	0.00	-0.07	(-0.19 0.06)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.02	0.08	0.00	0.02	(-0.14 0.18)	-0.13	0.07	0.00	-0.13	(-0.28 0.01)	0.16	0.08	0.00	0.16	(0.00 0.31)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.01	0.06	0.00	0.01	(-0.10 0.12)	0.07	0.05	0.00	0.07	(-0.03 0.18)	-0.05	0.05	0.00	-0.05	(-0.16 0.05)
<i>Maternal mental health</i>															
=1 if high distress	-0.07	0.11	0.00	-0.07	(-0.28 0.14)	0.32	0.10	0.00	0.32	(0.12 0.51)	-0.24	0.10	0.00	-0.24	(-0.45 -0.04)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.09	0.05	0.00	-0.09	(-0.19 0.02)	0.11	0.05	0.00	0.11	(0.02 0.21)	-0.11	0.05	0.00	-0.11	(-0.21 -0.01)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	0.04	0.07	0.00	0.04	(-0.09 0.18)	0.05	0.06	0.00	0.05	(-0.08 0.17)	0.02	0.07	0.00	0.02	(-0.12 0.15)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.06	0.08	0.00	-0.06	(-0.21 0.10)	0.06	0.07	0.00	0.06	(-0.08 0.21)	-0.10	0.08	0.00	-0.10	(-0.26 0.05)
=1 if rented (housing association or private)/ other	0.01	0.07	0.00	0.01	(-0.13 0.15)	-0.02	0.06	0.00	-0.02	(-0.14 0.11)	0.03	0.07	0.00	0.03	(-0.10 0.16)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.10	0.10	0.00	0.10	(-0.10 0.29)	-0.05	0.09	0.00	-0.05	(-0.22 0.13)	-0.05	0.10	0.00	-0.05	(-0.24 0.13)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.00	0.09	0.00	0.00	(-0.17 0.18)	0.18	0.08	0.00	0.18	(0.02 0.34)	-0.04	0.09	0.00	-0.04	(-0.21 0.12)
=1 if managerial/ professional occupation	0.06	0.08	0.00	0.06	(-0.10 0.22)	0.07	0.08	0.00	0.07	(-0.08 0.22)	0.04	0.08	0.00	0.04	(-0.11 0.20)
=1 if technical, semi-routine or routine occupation	-0.01	0.06	0.00	-0.01	(-0.13 0.11)	0.02	0.06	0.00	0.02	(-0.09 0.13)	0.00	0.06	0.00	0.00	(-0.11 0.12)
=1 if can't remember or father died	0.01	0.10	0.00	0.01	(-0.18 0.20)	0.21	0.09	0.00	0.21	(0.03 0.38)	-0.08	0.10	0.00	-0.08	(-0.27 0.12)
constant	-1.88	0.67	0.01	-1.88	(-3.20 -0.57)	0.76	0.63	0.01	0.76	(-0.48 1.99)	0.20	0.64	0.01	0.19	(-1.09 1.44)
σ_ϵ	0.95	0.03	0.00	0.96	(0.88 1.00)	0.88	0.03	0.00	0.88	(0.81 0.92)	0.93	0.03	0.00	0.93	(0.86 0.97)
σ_ζ	0.16	0.13	0.02	0.13	(0.01 0.43)	0.15	0.10	0.01	0.14	(0.03 0.39)	0.13	0.10	0.01	0.11	(0.02 0.38)
$\rho_{\zeta\xi}$	0.19	0.52	0.04	0.24	(-0.81 0.97)	-0.28	0.57	0.06	-0.41	(-0.98 0.91)	-0.20	0.54	0.05	-0.25	(-0.98 0.84)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.107: Bayesian Estimates: CSR and # Chronic Conditions (Eq. 1, TP, Age 7)

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
number of health problems	-0.10	0.05	0.00	-0.11	(-0.20 0.02)	0.32	0.06	0.00	0.32	(0.20 0.45)	-0.15	0.08	0.00	-0.14	(-0.32 -0.01)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.13	0.03	0.00	0.13	(0.07 0.20)	-0.18	0.03	0.00	-0.18	(-0.24 -0.12)	0.18	0.03	0.00	0.18	(0.12 0.24)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.05	0.03	0.00	-0.05	(-0.11 0.01)	0.09	0.03	0.00	0.09	(0.04 0.15)	-0.03	0.03	0.00	-0.03	(-0.09 0.03)
=1 if NVQ level 3	-0.03	0.03	0.00	-0.03	(-0.10 0.04)	0.02	0.03	0.00	0.02	(-0.05 0.08)	-0.05	0.03	0.00	-0.05	(-0.12 0.01)
=1 if overseas qual. only	-0.11	0.10	0.00	-0.11	(-0.31 0.08)	0.23	0.09	0.00	0.22	(0.04 0.41)	-0.23	0.10	0.00	-0.23	(-0.43 -0.04)
=1 if none of these	-0.06	0.06	0.00	-0.06	(-0.17 0.06)	0.14	0.06	0.00	0.14	(0.03 0.25)	-0.06	0.06	0.00	-0.06	(-0.18 0.05)
<i>Mother's age at birth</i>															
=1 if less than 25 years	-0.04	0.05	0.00	-0.04	(-0.13 0.06)	0.27	0.04	0.00	0.27	(0.19 0.36)	0.01	0.05	0.00	0.01	(-0.08 0.10)
=1 if 25 to 29 years	-0.01	0.04	0.00	-0.01	(-0.09 0.06)	0.13	0.03	0.00	0.13	(0.06 0.20)	0.07	0.04	0.00	0.07	(0.00 0.15)
=1 if 30 to 34 years	-0.03	0.03	0.00	-0.03	(-0.10 0.03)	0.06	0.03	0.00	0.06	(-0.00 0.12)	-0.01	0.03	0.00	-0.01	(-0.07 0.06)
<i>Child demography</i>															
=1 if female	0.20	0.02	0.00	0.21	(0.16 0.25)	-0.13	0.02	0.00	-0.13	(-0.17 -0.08)	0.16	0.02	0.00	0.16	(0.11 0.20)
age (years)	0.23	0.05	0.00	0.23	(0.14 0.32)	-0.01	0.04	0.00	-0.01	(-0.10 0.07)	-0.00	0.05	0.00	-0.00	(-0.09 0.08)
=1 if ethnicity is non-white	-0.10	0.05	0.00	-0.10	(-0.21 0.00)	-0.02	0.05	0.00	-0.02	(-0.11 0.08)	-0.07	0.05	0.00	-0.07	(-0.17 0.04)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.15	0.05	0.00	-0.15	(-0.26 -0.04)	0.12	0.05	0.00	0.12	(0.03 0.22)	-0.10	0.05	0.00	-0.10	(-0.20 0.00)
<i>Size of household</i>															
log of hh size incl. cm	0.10	0.07	0.00	0.10	(-0.04 0.24)	0.18	0.07	0.00	0.18	(0.05 0.32)	-0.03	0.07	0.00	-0.03	(-0.16 0.11)
<i>Number of older siblings</i>															
=1 if no older siblings	-0.04	0.03	0.00	-0.04	(-0.09 0.02)	0.04	0.03	0.00	0.04	(-0.01 0.09)	0.06	0.03	0.00	0.06	(0.01 0.11)
=1 if two or more older siblings	-0.05	0.04	0.00	-0.05	(-0.12 0.03)	-0.11	0.03	0.00	-0.11	(-0.18 -0.04)	0.02	0.04	0.00	0.02	(-0.05 0.09)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	0.03	0.10	0.00	0.03	(-0.16 0.21)	0.03	0.09	0.00	0.03	(-0.14 0.20)	-0.21	0.09	0.00	-0.21	(-0.39 -0.03)
<i>Country where interview took place</i>															
=1 if wales	0.21	0.12	0.00	0.21	(-0.03 0.44)	-0.09	0.11	0.00	-0.09	(-0.31 0.13)	0.21	0.12	0.00	0.21	(-0.02 0.44)
=1 if nireland	0.34	0.26	0.00	0.34	(-0.15 0.84)	-0.22	0.24	0.00	-0.22	(-0.68 0.25)	0.28	0.25	0.00	0.28	(-0.21 0.77)
=1 if scotland	0.17	0.14	0.00	0.17	(-0.11 0.45)	-0.06	0.13	0.00	-0.06	(-0.32 0.21)	-0.07	0.14	0.00	-0.07	(-0.34 0.21)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	0.07	0.03	0.00	0.07	(0.02 0.12)	-0.10	0.02	0.00	-0.10	(-0.14 -0.05)	0.05	0.03	0.00	0.05	(0.00 0.10)
<i>Childcare</i>															
=1 if formal childcare	-0.03	0.05	0.00	-0.03	(-0.13 0.08)	0.05	0.05	0.00	0.05	(-0.04 0.15)	-0.00	0.05	0.00	0.00	(-0.10 0.10)
=1 if informal/ other childcare	-0.03	0.04	0.00	-0.03	(-0.11 0.05)	0.07	0.04	0.00	0.07	(-0.01 0.14)	0.01	0.04	0.00	0.01	(-0.07 0.09)
=1 if grandparent care	0.01	0.03	0.00	0.01	(-0.04 0.07)	-0.01	0.03	0.00	-0.01	(-0.06 0.04)	0.02	0.03	0.00	0.02	(-0.04 0.07)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	0.02	0.03	0.00	0.02	(-0.03 0.08)	-0.05	0.03	0.00	-0.05	(-0.10 -0.00)	0.02	0.03	0.00	0.02	(-0.03 0.07)
=1 if working full-time	0.11	0.06	0.00	0.11	(-0.01 0.22)	0.01	0.05	0.00	0.01	(-0.09 0.12)	-0.01	0.05	0.00	-0.01	(-0.12 0.09)
<i>How long mother breastfed child</i>															

continued on next page

Table A.3.107 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.04	0.03	0.00	0.04	(-0.01 0.11)	-0.16	0.03	0.00	-0.16	(-0.22 -0.11)	0.07	0.03	0.00	0.07	(0.01 0.12)
<i>If child is naughty...</i>															
=1 if mother smacks child	-0.34	0.13	0.00	-0.34	(-0.60 -0.09)	0.45	0.12	0.00	0.45	(0.21 0.68)	-0.27	0.13	0.00	-0.27	(-0.52 -0.02)
=1 if mother tells child off	-0.30	0.02	0.00	-0.30	(-0.35 -0.25)	0.55	0.02	0.00	0.55	(0.51 0.60)	-0.44	0.02	0.00	-0.44	(-0.48 -0.39)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.10	0.04	0.00	0.10	(0.01 0.19)	-0.19	0.04	0.00	-0.19	(-0.27 -0.11)	0.14	0.04	0.00	0.14	(0.06 0.23)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.08	0.03	0.00	-0.08	(-0.15 -0.01)	0.09	0.03	0.00	0.09	(0.03 0.15)	-0.04	0.03	0.00	-0.04	(-0.10 0.03)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.02	0.04	0.00	-0.02	(-0.10 0.06)	0.02	0.04	0.00	0.02	(-0.05 0.10)	0.07	0.04	0.00	0.07	(-0.01 0.15)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.04	0.03	0.00	0.04	(-0.02 0.09)	0.08	0.03	0.00	0.08	(0.03 0.13)	-0.01	0.03	0.00	-0.01	(-0.07 0.04)
<i>Maternal mental health</i>															
=1 if high distress	-0.17	0.08	0.00	-0.17	(-0.32 -0.01)	0.46	0.07	0.00	0.46	(0.32 0.61)	-0.36	0.08	0.00	-0.36	(-0.51 -0.21)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.04	0.03	0.00	-0.04	(-0.11 0.02)	0.11	0.03	0.00	0.11	(0.06 0.17)	-0.12	0.03	0.00	-0.12	(-0.18 -0.06)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.03	0.03	0.00	-0.03	(-0.09 0.03)	0.02	0.03	0.00	0.02	(-0.04 0.07)	0.01	0.03	0.00	0.01	(-0.04 0.07)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.00	0.05	0.00	-0.00	(-0.10 0.10)	0.15	0.05	0.00	0.15	(0.06 0.24)	-0.14	0.05	0.00	-0.14	(-0.23 -0.04)
=1 if rented (housing association or private)/ other	0.03	0.04	0.00	0.03	(-0.05 0.12)	0.09	0.04	0.00	0.09	(0.01 0.16)	-0.05	0.04	0.00	-0.05	(-0.13 0.03)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.12	0.06	0.00	0.12	(0.01 0.23)	-0.10	0.05	0.00	-0.10	(-0.20 0.01)	0.19	0.06	0.00	0.19	(0.08 0.30)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.01	0.05	0.00	-0.01	(-0.12 0.09)	0.12	0.05	0.00	0.12	(0.02 0.21)	-0.03	0.05	0.00	-0.03	(-0.13 0.07)
=1 if managerial/ professional occupation	0.07	0.03	0.00	0.07	(0.01 0.14)	0.01	0.03	0.00	0.01	(-0.05 0.07)	0.03	0.03	0.00	0.03	(-0.03 0.10)
=1 if technical, semi-routine or routine occupation	-0.01	0.03	0.00	-0.01	(-0.06 0.05)	0.03	0.03	0.00	0.03	(-0.03 0.08)	-0.04	0.03	0.00	-0.04	(-0.09 0.02)
=1 if can't remember or father died	-0.01	0.05	0.00	-0.01	(-0.11 0.10)	0.02	0.05	0.00	0.02	(-0.07 0.12)	-0.01	0.05	0.00	-0.01	(-0.11 0.09)
constant	-2.79	0.41	0.00	-2.79	(-3.58 -1.99)	0.74	0.38	0.00	0.73	(-0.02 1.49)	-1.05	0.40	0.00	-1.06	(-1.82 -0.25)
σ_ϵ	0.95	0.02	0.00	0.96	(0.88 0.98)	0.84	0.03	0.00	0.84	(0.76 0.88)	0.92	0.03	0.00	0.93	(0.85 0.95)
σ_ζ	0.15	0.11	0.03	0.14	(0.03 0.40)	0.32	0.08	0.01	0.32	(0.19 0.49)	0.20	0.11	0.02	0.19	(0.05 0.43)
$\rho_{\zeta\xi}$	0.18	0.49	0.08	0.20	(-0.74 0.89)	-0.82	0.17	0.02	-0.87	(-0.99 -0.36)	0.26	0.53	0.10	0.39	(-0.91 0.92)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.108: Bayesian Estimates: CSR and # Chronic Conditions (Eq. 2, LP, Age 7)

	CSR IND					CSR EMO					CSR COO							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Standard Background Controls																		
<i>Income</i>																		
log of permanent family income (weekly, imp.)	-0.37	0.16	0.01	-0.37	(-0.67	-0.04)	-0.39	0.17	0.01	-0.40	(-0.71	-0.06)	-0.39	0.16	0.01	-0.39	(-0.71	-0.07)
<i>Maternal education</i>																		
=1 if NVQ level 1 or 2	-0.15	0.17	0.00	-0.15	(-0.49	0.18)	-0.16	0.17	0.00	-0.17	(-0.50	0.18)	-0.16	0.17	0.00	-0.16	(-0.49	0.19)
=1 if NVQ level 3	-0.07	0.20	0.00	-0.07	(-0.48	0.32)	-0.09	0.20	0.00	-0.09	(-0.48	0.31)	-0.08	0.20	0.00	-0.08	(-0.47	0.33)
=1 if overseas qual. only	-0.49	0.44	0.00	-0.49	(-1.39	0.34)	-0.50	0.44	0.00	-0.49	(-1.42	0.33)	-0.49	0.45	0.00	-0.48	(-1.41	0.34)
=1 if none of these	-0.18	0.24	0.00	-0.18	(-0.67	0.28)	-0.21	0.24	0.00	-0.21	(-0.67	0.26)	-0.20	0.24	0.00	-0.19	(-0.67	0.28)
<i>Mother's age at birth</i>																		
=1 if less than 25 years	-0.09	0.24	0.00	-0.09	(-0.55	0.38)	-0.10	0.24	0.00	-0.10	(-0.58	0.38)	-0.09	0.24	0.00	-0.09	(-0.56	0.39)
=1 if 25 to 29 years	0.13	0.22	0.00	0.12	(-0.30	0.57)	0.12	0.22	0.00	0.11	(-0.32	0.56)	0.13	0.22	0.00	0.12	(-0.31	0.56)
=1 if 30 to 34 years	0.10	0.22	0.00	0.10	(-0.34	0.55)	0.10	0.22	0.00	0.10	(-0.34	0.54)	0.10	0.22	0.00	0.10	(-0.34	0.54)
<i>Child demography</i>																		
=1 if female	-0.17	0.13	0.00	-0.17	(-0.42	0.08)	-0.17	0.13	0.00	-0.17	(-0.42	0.09)	-0.17	0.13	0.00	-0.17	(-0.42	0.08)
age (years)	-0.05	0.21	0.01	-0.05	(-0.45	0.39)	-0.02	0.20	0.01	-0.02	(-0.42	0.36)	-0.00	0.19	0.01	-0.00	(-0.38	0.36)
=1 if ethnicity is non-white	-0.49	0.26	0.00	-0.49	(-1.02	0.01)	-0.50	0.26	0.00	-0.50	(-1.02	0.01)	-0.49	0.26	0.00	-0.48	(-1.00	0.01)
<i>Child's health endowment</i>																		
=1 if birth weight < 2500g	0.31	0.23	0.00	0.31	(-0.14	0.75)	0.31	0.23	0.00	0.31	(-0.15	0.76)	0.31	0.23	0.00	0.31	(-0.16	0.74)
<i>Size of household</i>																		
log of hh size incl. cm	-0.23	0.24	0.00	-0.23	(-0.69	0.23)	-0.22	0.24	0.00	-0.22	(-0.70	0.25)	-0.24	0.23	0.00	-0.24	(-0.70	0.21)
<i>Number of older siblings</i>																		
=1 if no older siblings	-0.21	0.17	0.00	-0.21	(-0.53	0.12)	-0.21	0.16	0.00	-0.21	(-0.54	0.12)	-0.21	0.17	0.00	-0.21	(-0.54	0.11)
=1 if two or more older siblings	-0.00	0.19	0.00	-0.00	(-0.38	0.37)	0.00	0.20	0.00	0.00	(-0.39	0.39)	0.00	0.19	0.00	0.00	(-0.38	0.38)
<i>Respondent's relationship to child</i>																		
=1 if natural mother of child	0.73	0.51	0.02	0.71	(-0.23	1.76)	0.68	0.49	0.02	0.67	(-0.22	1.70)	0.71	0.51	0.02	0.69	(-0.24	1.77)
<i>Country where interview took place</i>																		
=1 if wales	-0.06	0.48	0.01	-0.05	(-0.99	0.86)	-0.05	0.48	0.01	-0.05	(-1.00	0.90)	-0.07	0.48	0.01	-0.06	(-1.01	0.88)
=1 if nireland	-0.15	0.58	0.01	-0.15	(-1.28	0.98)	-0.17	0.59	0.01	-0.17	(-1.31	0.98)	-0.15	0.58	0.01	-0.15	(-1.31	0.98)
=1 if scotland	-0.55	0.52	0.01	-0.55	(-1.54	0.47)	-0.55	0.52	0.01	-0.55	(-1.56	0.46)	-0.54	0.52	0.01	-0.54	(-1.56	0.48)
Time and Care																		
<i>Time mother spends with child</i>																		
=1 if at least just enough	-0.24	0.14	0.00	-0.24	(-0.52	0.04)	-0.24	0.14	0.00	-0.24	(-0.52	0.03)	-0.24	0.14	0.00	-0.24	(-0.52	0.03)
<i>Childcare</i>																		
=1 if formal childcare	0.01	0.29	0.00	0.01	(-0.57	0.57)	0.01	0.29	0.00	0.01	(-0.56	0.57)	-0.01	0.29	0.00	-0.00	(-0.59	0.56)
=1 if informal/ other childcare	0.18	0.23	0.00	0.18	(-0.27	0.61)	0.17	0.22	0.00	0.18	(-0.28	0.60)	0.18	0.22	0.00	0.18	(-0.27	0.60)
=1 if grandparent care	0.15	0.16	0.00	0.15	(-0.16	0.46)	0.15	0.16	0.00	0.15	(-0.16	0.45)	0.15	0.16	0.00	0.15	(-0.16	0.46)
<i>Maternal employment (t - 1)</i>																		
=1 if working part-time	0.04	0.15	0.00	0.03	(-0.26	0.34)	0.04	0.15	0.00	0.04	(-0.27	0.34)	0.04	0.16	0.00	0.04	(-0.27	0.35)
=1 if working full-time	-0.24	0.36	0.00	-0.23	(-0.97	0.45)	-0.23	0.36	0.00	-0.22	(-0.95	0.46)	-0.21	0.36	0.00	-0.21	(-0.94	0.49)
<i>How long mother breastfed child</i>																		
=1 if at least 6 months	0.03	0.20	0.00	0.03	(-0.37	0.43)	0.03	0.20	0.00	0.03	(-0.37	0.42)	0.03	0.20	0.00	0.03	(-0.37	0.42)
<i>If child is naughty...</i>																		

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Table A.3.108 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.74	0.36	0.00	0.75	(0.03 1.41)	0.80	0.36	0.00	0.80	(0.07 1.50)	0.73	0.36	0.00	0.73	(0.01 1.42)
=1 if mother tells child off	0.09	0.13	0.00	0.09	(-0.17 0.35)	0.10	0.13	0.00	0.10	(-0.16 0.36)	0.09	0.13	0.00	0.09	(-0.17 0.35)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	-0.02	0.19	0.00	-0.03	(-0.39 0.35)	-0.02	0.19	0.00	-0.02	(-0.38 0.36)	-0.02	0.19	0.00	-0.03	(-0.38 0.35)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	0.11	0.16	0.00	0.12	(-0.20 0.43)	0.12	0.16	0.00	0.12	(-0.20 0.43)	0.12	0.16	0.00	0.12	(-0.20 0.43)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.40	0.30	0.01	0.40	(-0.17 1.01)	0.41	0.30	0.01	0.40	(-0.16 1.02)	0.40	0.30	0.01	0.40	(-0.17 1.02)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.74	0.13	0.00	0.74	(0.47 1.00)	0.73	0.14	0.00	0.73	(0.46 1.00)	0.74	0.13	0.00	0.74	(0.47 1.00)
<i>Maternal mental health</i>															
=1 if high distress	0.29	0.24	0.00	0.30	(-0.20 0.77)	0.31	0.25	0.00	0.32	(-0.18 0.79)	0.29	0.25	0.00	0.30	(-0.20 0.77)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.03	0.13	0.00	-0.03	(-0.29 0.23)	-0.02	0.13	0.00	-0.02	(-0.29 0.24)	-0.03	0.14	0.00	-0.03	(-0.29 0.24)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.47	0.21	0.00	-0.46	(-0.89 -0.06)	-0.47	0.21	0.00	-0.47	(-0.88 -0.07)	-0.47	0.21	0.00	-0.47	(-0.89 -0.07)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.14	0.20	0.00	0.14	(-0.25 0.52)	0.13	0.20	0.00	0.13	(-0.25 0.52)	0.13	0.20	0.00	0.13	(-0.26 0.51)
=1 if rented (housing association or private)/ other	-0.02	0.18	0.00	-0.02	(-0.38 0.33)	-0.03	0.18	0.00	-0.03	(-0.38 0.33)	-0.04	0.18	0.00	-0.04	(-0.40 0.33)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	-0.02	0.25	0.00	-0.02	(-0.51 0.49)	-0.01	0.25	0.00	-0.02	(-0.50 0.49)	-0.02	0.25	0.00	-0.02	(-0.50 0.47)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.02	0.22	0.00	-0.02	(-0.47 0.41)	-0.03	0.22	0.00	-0.02	(-0.47 0.40)	-0.03	0.22	0.00	-0.03	(-0.47 0.40)
=1 if managerial/ professional occupation	-0.09	0.21	0.00	-0.08	(-0.50 0.31)	-0.08	0.21	0.00	-0.08	(-0.49 0.32)	-0.09	0.21	0.00	-0.09	(-0.50 0.33)
=1 if technical, semi-routine or routine occupation	-0.10	0.16	0.00	-0.09	(-0.40 0.21)	-0.10	0.16	0.00	-0.10	(-0.41 0.21)	-0.09	0.16	0.00	-0.09	(-0.41 0.22)
=1 if can't remember or father died	-0.08	0.24	0.00	-0.07	(-0.55 0.39)	-0.07	0.24	0.00	-0.07	(-0.54 0.39)	-0.07	0.24	0.00	-0.07	(-0.55 0.39)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	0.27	0.20	0.00	0.27	(-0.12 0.64)	0.26	0.20	0.00	0.26	(-0.14 0.65)	0.27	0.20	0.00	0.27	(-0.11 0.65)
constant	-0.19	0.87	0.05	-0.20	(-1.89 1.55)	-0.14	0.89	0.05	-0.15	(-1.87 1.60)	-0.24	0.86	0.05	-0.23	(-1.96 1.44)
α	9.35	6.44	0.34	7.44	(2.92 26.75)	9.23	6.58	0.36	7.38	(2.92 28.01)	8.81	5.41	0.26	7.43	(2.89 22.72)
$\ln\alpha$	2.06	0.57	0.03	2.01	(1.07 3.29)	2.05	0.57	0.03	2.00	(1.07 3.33)	2.03	0.53	0.03	2.01	(1.06 3.12)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.109: Bayesian Estimates: CSR and # Chronic Conditions (Eq. 2, TP, Age 7)

	CSR IND					CSR EMO					CSR COO							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Standard Background Controls																		
<i>Income</i>																		
log of permanent family income (weekly, imp.)	-0.20	0.08	0.01	-0.20	(-0.37	-0.04)	-0.20	0.08	0.01	-0.20	(-0.35	-0.02)	-0.21	0.09	0.01	-0.21	(-0.37	-0.04)
<i>Maternal education</i>																		
=1 if NVQ level 1 or 2	-0.14	0.08	0.00	-0.14	(-0.30	0.01)	-0.13	0.08	0.00	-0.13	(-0.28	0.02)	-0.14	0.08	0.00	-0.14	(-0.30	0.01)
=1 if NVQ level 3	-0.10	0.09	0.00	-0.10	(-0.28	0.08)	-0.09	0.09	0.00	-0.09	(-0.27	0.08)	-0.10	0.09	0.00	-0.10	(-0.27	0.07)
=1 if overseas qual. only	0.15	0.22	0.00	0.16	(-0.30	0.59)	0.16	0.22	0.00	0.16	(-0.29	0.59)	0.15	0.22	0.00	0.15	(-0.30	0.58)
=1 if none of these	-0.21	0.15	0.00	-0.20	(-0.50	0.08)	-0.20	0.15	0.00	-0.20	(-0.49	0.08)	-0.21	0.15	0.00	-0.21	(-0.51	0.08)
<i>Mother's age at birth</i>																		
=1 if less than 25 years	0.13	0.12	0.00	0.13	(-0.10	0.36)	0.13	0.12	0.00	0.13	(-0.11	0.35)	0.13	0.12	0.00	0.13	(-0.10	0.36)
=1 if 25 to 29 years	0.16	0.10	0.00	0.16	(-0.03	0.35)	0.16	0.09	0.00	0.16	(-0.03	0.35)	0.16	0.09	0.00	0.16	(-0.02	0.35)
=1 if 30 to 34 years	0.06	0.09	0.00	0.06	(-0.11	0.23)	0.06	0.09	0.00	0.06	(-0.11	0.23)	0.06	0.09	0.00	0.06	(-0.11	0.24)
<i>Child demography</i>																		
=1 if female	-0.36	0.06	0.00	-0.36	(-0.48	-0.25)	-0.36	0.06	0.00	-0.36	(-0.48	-0.24)	-0.36	0.06	0.00	-0.36	(-0.48	-0.24)
age (years)	0.18	0.12	0.01	0.18	(-0.06	0.41)	0.19	0.11	0.01	0.20	(-0.03	0.40)	0.19	0.11	0.01	0.20	(-0.03	0.40)
=1 if ethnicity is non-white	-0.03	0.14	0.00	-0.03	(-0.30	0.23)	-0.04	0.14	0.00	-0.04	(-0.31	0.23)	-0.03	0.14	0.00	-0.03	(-0.30	0.24)
<i>Child's health endowment</i>																		
=1 if birth weight < 2500g	0.31	0.12	0.00	0.31	(0.07	0.55)	0.31	0.12	0.00	0.31	(0.07	0.55)	0.31	0.12	0.00	0.32	(0.07	0.55)
<i>Size of household</i>																		
log of hh size incl. cm	-0.27	0.17	0.01	-0.27	(-0.59	0.06)	-0.31	0.17	0.01	-0.31	(-0.64	0.03)	-0.26	0.17	0.01	-0.26	(-0.61	0.07)
<i>Number of older siblings</i>																		
=1 if no older siblings	-0.04	0.07	0.00	-0.04	(-0.18	0.10)	-0.04	0.07	0.00	-0.04	(-0.19	0.10)	-0.04	0.07	0.00	-0.04	(-0.18	0.10)
=1 if two or more older siblings	-0.09	0.10	0.00	-0.09	(-0.29	0.10)	-0.08	0.10	0.00	-0.08	(-0.27	0.11)	-0.09	0.10	0.00	-0.09	(-0.28	0.10)
<i>Respondent's relationship to child</i>																		
=1 if natural mother of child	0.30	0.28	0.01	0.30	(-0.23	0.85)	0.31	0.27	0.01	0.31	(-0.21	0.84)	0.32	0.28	0.01	0.32	(-0.22	0.89)
<i>Country where interview took place</i>																		
=1 if wales	0.49	0.29	0.01	0.49	(-0.08	1.07)	0.47	0.29	0.01	0.47	(-0.09	1.03)	0.49	0.30	0.01	0.49	(-0.10	1.07)
=1 if nireland	-0.11	0.45	0.01	-0.11	(-0.97	0.79)	-0.13	0.44	0.01	-0.12	(-1.00	0.72)	-0.11	0.46	0.01	-0.11	(-1.02	0.78)
=1 if scotland	-0.67	0.31	0.01	-0.67	(-1.27	-0.07)	-0.70	0.31	0.01	-0.70	(-1.29	-0.09)	-0.71	0.31	0.01	-0.71	(-1.31	-0.10)
Time and Care																		
<i>Time mother spends with child</i>																		
=1 if at least just enough	-0.10	0.07	0.00	-0.10	(-0.23	0.03)	-0.11	0.06	0.00	-0.11	(-0.24	0.01)	-0.10	0.07	0.00	-0.10	(-0.23	0.03)
<i>Childcare</i>																		
=1 if formal childcare	-0.01	0.14	0.00	-0.01	(-0.29	0.26)	-0.04	0.14	0.00	-0.04	(-0.32	0.23)	-0.02	0.14	0.00	-0.02	(-0.29	0.26)
=1 if informal/ other childcare	0.02	0.12	0.00	0.03	(-0.20	0.25)	0.04	0.11	0.00	0.04	(-0.19	0.26)	0.03	0.12	0.00	0.03	(-0.21	0.25)
=1 if grandparent care	-0.12	0.07	0.00	-0.12	(-0.27	0.03)	-0.12	0.08	0.00	-0.12	(-0.27	0.03)	-0.11	0.07	0.00	-0.11	(-0.26	0.03)
<i>Maternal employment (t - 1)</i>																		
=1 if working part-time	-0.07	0.07	0.00	-0.07	(-0.21	0.07)	-0.07	0.07	0.00	-0.07	(-0.20	0.07)	-0.06	0.07	0.00	-0.07	(-0.20	0.08)
=1 if working full-time	-0.02	0.15	0.00	-0.01	(-0.31	0.27)	0.00	0.14	0.00	0.01	(-0.29	0.29)	0.00	0.15	0.00	0.00	(-0.29	0.29)
<i>How long mother breastfed child</i>																		
=1 if at least 6 months	0.09	0.08	0.00	0.09	(-0.06	0.24)	0.09	0.08	0.00	0.09	(-0.06	0.25)	0.09	0.08	0.00	0.09	(-0.06	0.25)
<i>If child is naughty...</i>																		

continued on next page

Table A.3.109 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.48	0.29	0.00	-0.47	(-1.06 0.07)	-0.39	0.29	0.00	-0.39	(-0.97 0.15)	-0.44	0.29	0.00	-0.44	(-1.04 0.10)
=1 if mother tells child off	0.07	0.06	0.00	0.07	(-0.06 0.19)	0.12	0.06	0.00	0.12	(-0.01 0.24)	0.08	0.06	0.00	0.08	(-0.05 0.20)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	-0.15	0.11	0.00	-0.15	(-0.36 0.06)	-0.16	0.11	0.00	-0.16	(-0.36 0.05)	-0.16	0.11	0.00	-0.16	(-0.36 0.05)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	0.10	0.09	0.00	0.10	(-0.07 0.26)	0.15	0.09	0.00	0.15	(-0.02 0.32)	0.10	0.09	0.00	0.10	(-0.07 0.27)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.04	0.15	0.00	0.04	(-0.26 0.35)	-0.01	0.15	0.00	-0.01	(-0.30 0.30)	0.05	0.16	0.00	0.05	(-0.25 0.36)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.66	0.06	0.00	0.66	(0.53 0.78)	0.66	0.06	0.00	0.65	(0.53 0.78)	0.66	0.07	0.00	0.66	(0.53 0.78)
<i>Maternal mental health</i>															
=1 if high distress	0.22	0.17	0.00	0.22	(-0.12 0.55)	0.27	0.17	0.00	0.28	(-0.07 0.60)	0.24	0.17	0.00	0.24	(-0.10 0.57)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.10	0.08	0.00	0.10	(-0.05 0.25)	0.07	0.08	0.00	0.07	(-0.08 0.23)	0.09	0.08	0.00	0.09	(-0.06 0.25)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.14	0.08	0.00	-0.14	(-0.30 0.02)	-0.15	0.08	0.00	-0.14	(-0.31 0.01)	-0.14	0.08	0.00	-0.14	(-0.30 0.02)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.17	0.12	0.00	-0.17	(-0.41 0.07)	-0.18	0.12	0.00	-0.18	(-0.42 0.06)	-0.17	0.12	0.00	-0.17	(-0.41 0.07)
=1 if rented (housing association or private)/ other	-0.03	0.10	0.00	-0.03	(-0.23 0.17)	-0.03	0.10	0.00	-0.03	(-0.23 0.17)	-0.03	0.10	0.00	-0.03	(-0.23 0.17)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	-0.18	0.15	0.00	-0.18	(-0.46 0.13)	-0.20	0.15	0.00	-0.20	(-0.49 0.10)	-0.17	0.15	0.00	-0.17	(-0.46 0.13)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.19	0.13	0.00	0.20	(-0.06 0.44)	0.18	0.13	0.00	0.19	(-0.07 0.43)	0.19	0.13	0.00	0.19	(-0.06 0.44)
=1 if managerial/ professional occupation	-0.05	0.09	0.00	-0.05	(-0.23 0.12)	-0.05	0.09	0.00	-0.05	(-0.23 0.11)	-0.05	0.09	0.00	-0.05	(-0.23 0.12)
=1 if technical, semi-routine or routine occupation	0.08	0.07	0.00	0.08	(-0.07 0.22)	0.07	0.07	0.00	0.08	(-0.07 0.22)	0.08	0.07	0.00	0.08	(-0.07 0.22)
=1 if can't remember or father died	0.05	0.13	0.00	0.05	(-0.20 0.31)	0.05	0.13	0.00	0.05	(-0.21 0.30)	0.05	0.13	0.00	0.05	(-0.21 0.31)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	0.31	0.12	0.00	0.31	(0.07 0.54)	0.33	0.12	0.00	0.33	(0.10 0.56)	0.31	0.12	0.00	0.31	(0.07 0.54)
constant	-1.23	0.71	0.06	-1.22	(-2.66 0.15)	-1.26	0.76	0.07	-1.24	(-2.81 0.13)	-1.34	0.69	0.06	-1.32	(-2.74 -0.01)
α	20.02	11.51	1.08	16.91	(7.41 54.22)	22.90	13.56	1.30	19.25	(8.43 60.12)	20.76	12.97	1.26	17.18	(7.54 52.91)
$\ln\alpha$	2.87	0.49	0.05	2.83	(2.00 3.99)	3.00	0.50	0.05	2.96	(2.13 4.10)	2.89	0.51	0.05	2.84	(2.02 3.97)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.110: Bayesian Estimates: CSR and # Hospital Admissions (Eq. 1, LP, Age 7)

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
number of hospital admissions	0.00	0.06	0.00	0.00	(-0.11 0.13)	0.02	0.05	0.00	0.03	(-0.08 0.12)	-0.00	0.06	0.00	-0.00	(-0.12 0.11)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.03	0.07	0.00	0.03	(-0.10 0.15)	-0.09	0.06	0.00	-0.09	(-0.21 0.03)	-0.01	0.06	0.00	-0.01	(-0.14 0.11)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.19	0.07	0.00	-0.19	(-0.32 -0.06)	0.22	0.06	0.00	0.22	(0.10 0.34)	-0.14	0.07	0.00	-0.14	(-0.27 -0.01)
=1 if NVQ level 3	0.02	0.08	0.00	0.03	(-0.13 0.18)	0.10	0.07	0.00	0.10	(-0.04 0.25)	-0.06	0.08	0.00	-0.06	(-0.21 0.09)
=1 if overseas qual. only	-0.37	0.17	0.00	-0.37	(-0.71 -0.03)	0.32	0.17	0.00	0.32	(-0.01 0.64)	-0.34	0.17	0.00	-0.34	(-0.68 -0.01)
=1 if none of these	-0.16	0.10	0.00	-0.17	(-0.36 0.03)	0.23	0.09	0.00	0.23	(0.05 0.41)	-0.20	0.10	0.00	-0.20	(-0.39 -0.01)
<i>Mother's age at birth</i>															
=1 if less than 25 years	0.17	0.10	0.00	0.17	(-0.03 0.37)	0.40	0.09	0.00	0.40	(0.21 0.58)	0.02	0.10	0.00	0.02	(-0.17 0.21)
=1 if 25 to 29 years	0.04	0.09	0.00	0.04	(-0.14 0.22)	0.30	0.08	0.00	0.30	(0.13 0.46)	0.02	0.09	0.00	0.02	(-0.15 0.19)
=1 if 30 to 34 years	-0.08	0.09	0.00	-0.08	(-0.26 0.10)	0.19	0.08	0.00	0.19	(0.03 0.36)	0.04	0.09	0.00	0.04	(-0.12 0.22)
<i>Child demography</i>															
=1 if female	0.14	0.05	0.00	0.14	(0.04 0.24)	-0.16	0.05	0.00	-0.16	(-0.25 -0.07)	0.17	0.05	0.00	0.17	(0.08 0.27)
age (years)	0.20	0.08	0.00	0.20	(0.04 0.36)	-0.14	0.08	0.00	-0.14	(-0.29 0.02)	-0.00	0.08	0.00	-0.00	(-0.17 0.16)
=1 if ethnicity is non-white	0.25	0.10	0.00	0.25	(0.06 0.44)	-0.04	0.09	0.00	-0.04	(-0.21 0.13)	-0.07	0.09	0.00	-0.07	(-0.25 0.11)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.41	0.10	0.00	-0.41	(-0.60 -0.21)	0.22	0.09	0.00	0.22	(0.05 0.40)	-0.21	0.09	0.00	-0.21	(-0.40 -0.03)
<i>Size of household</i>															
log of hh size incl. cm	0.04	0.10	0.00	0.04	(-0.15 0.24)	0.24	0.09	0.00	0.24	(0.06 0.43)	0.06	0.10	0.00	0.06	(-0.13 0.26)
<i>Number of older siblings</i>															
=1 if no older siblings	-0.01	0.06	0.00	-0.01	(-0.14 0.12)	0.06	0.06	0.00	0.06	(-0.05 0.18)	0.01	0.06	0.00	0.01	(-0.12 0.13)
=1 if two or more older siblings	0.11	0.08	0.00	0.11	(-0.04 0.26)	-0.10	0.07	0.00	-0.11	(-0.24 0.04)	-0.04	0.07	0.00	-0.04	(-0.18 0.11)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	-0.05	0.15	0.00	-0.05	(-0.34 0.25)	-0.06	0.14	0.00	-0.06	(-0.34 0.21)	-0.05	0.15	0.00	-0.05	(-0.34 0.24)
<i>Country where interview took place</i>															
=1 if wales	0.34	0.26	0.00	0.33	(-0.18 0.86)	-0.02	0.24	0.00	-0.02	(-0.49 0.45)	-0.09	0.26	0.00	-0.09	(-0.59 0.41)
=1 if nireland	-0.67	0.50	0.01	-0.66	(-1.68 0.32)	0.32	0.49	0.00	0.32	(-0.61 1.27)	-0.52	0.49	0.00	-0.52	(-1.49 0.45)
=1 if scotland	0.22	0.30	0.00	0.23	(-0.37 0.82)	0.09	0.29	0.00	0.09	(-0.46 0.65)	-0.03	0.30	0.00	-0.04	(-0.62 0.55)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	0.16	0.06	0.00	0.16	(0.06 0.28)	-0.06	0.05	0.00	-0.06	(-0.16 0.04)	0.02	0.05	0.00	0.02	(-0.09 0.12)
<i>Childcare</i>															
=1 if formal childcare	0.13	0.11	0.00	0.13	(-0.08 0.34)	0.17	0.10	0.00	0.17	(-0.02 0.36)	-0.02	0.10	0.00	-0.02	(-0.22 0.19)
=1 if informal/ other childcare	0.06	0.08	0.00	0.06	(-0.09 0.22)	0.02	0.07	0.00	0.02	(-0.13 0.16)	-0.17	0.08	0.00	-0.17	(-0.32 -0.02)
=1 if grandparent care	0.09	0.06	0.00	0.09	(-0.03 0.22)	-0.01	0.06	0.00	-0.01	(-0.12 0.11)	0.02	0.06	0.00	0.02	(-0.10 0.13)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	0.07	0.06	0.00	0.07	(-0.06 0.19)	-0.09	0.06	0.00	-0.09	(-0.20 0.02)	0.06	0.06	0.00	0.06	(-0.06 0.17)
=1 if working full-time	0.01	0.12	0.00	0.01	(-0.22 0.25)	-0.02	0.11	0.00	-0.02	(-0.23 0.20)	0.10	0.12	0.00	0.10	(-0.13 0.34)
<i>How long mother breastfed child</i>															

continued on next page

Table A.3.110 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	-0.10	0.08	0.00	-0.10	(-0.26 0.06)	-0.09	0.07	0.00	-0.09	(-0.23 0.06)	0.16	0.08	0.00	0.16	(0.00 0.31)
<i>If child is naughty...</i>															
=1 if mother smacks child	-0.19	0.22	0.00	-0.19	(-0.61 0.24)	0.56	0.20	0.00	0.56	(0.17 0.97)	-1.01	0.21	0.00	-1.01	(-1.43 -0.59)
=1 if mother tells child off	-0.23	0.05	0.00	-0.23	(-0.33 -0.14)	0.57	0.05	0.00	0.57	(0.48 0.66)	-0.46	0.05	0.00	-0.46	(-0.56 -0.37)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.17	0.08	0.00	0.17	(0.01 0.33)	-0.11	0.07	0.00	-0.11	(-0.26 0.03)	0.12	0.08	0.00	0.12	(-0.03 0.27)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.17	0.07	0.00	-0.17	(-0.30 -0.03)	0.10	0.06	0.00	0.09	(-0.02 0.21)	-0.07	0.06	0.00	-0.07	(-0.19 0.06)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.02	0.08	0.00	0.02	(-0.14 0.18)	-0.13	0.07	0.00	-0.13	(-0.28 0.01)	0.16	0.08	0.00	0.16	(0.01 0.31)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.01	0.06	0.00	0.01	(-0.10 0.12)	0.08	0.05	0.00	0.08	(-0.02 0.18)	-0.05	0.05	0.00	-0.05	(-0.16 0.05)
<i>Maternal mental health</i>															
=1 if high distress	-0.07	0.11	0.00	-0.07	(-0.28 0.13)	0.33	0.10	0.00	0.33	(0.13 0.52)	-0.24	0.10	0.00	-0.24	(-0.45 -0.04)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.08	0.05	0.00	-0.08	(-0.19 0.02)	0.11	0.05	0.00	0.11	(0.02 0.21)	-0.11	0.05	0.00	-0.11	(-0.21 -0.01)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	0.04	0.07	0.00	0.04	(-0.10 0.18)	0.05	0.06	0.00	0.04	(-0.08 0.17)	0.02	0.07	0.00	0.02	(-0.11 0.15)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.06	0.08	0.00	-0.06	(-0.22 0.10)	0.07	0.08	0.00	0.07	(-0.08 0.22)	-0.10	0.08	0.00	-0.10	(-0.26 0.05)
=1 if rented (housing association or private)/ other	0.01	0.07	0.00	0.01	(-0.13 0.14)	-0.02	0.06	0.00	-0.02	(-0.14 0.11)	0.03	0.07	0.00	0.03	(-0.10 0.17)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.10	0.10	0.00	0.10	(-0.10 0.29)	-0.04	0.09	0.00	-0.04	(-0.22 0.14)	-0.05	0.10	0.00	-0.05	(-0.24 0.14)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.00	0.09	0.00	0.00	(-0.17 0.18)	0.18	0.08	0.00	0.18	(0.02 0.34)	-0.05	0.09	0.00	-0.05	(-0.22 0.12)
=1 if managerial/ professional occupation	0.06	0.08	0.00	0.06	(-0.09 0.22)	0.07	0.07	0.00	0.07	(-0.08 0.21)	0.04	0.08	0.00	0.04	(-0.12 0.20)
=1 if technical, semi-routine or routine occupation	-0.01	0.06	0.00	-0.01	(-0.13 0.11)	0.02	0.06	0.00	0.02	(-0.09 0.13)	0.00	0.06	0.00	0.00	(-0.11 0.12)
=1 if can't remember or father died	0.01	0.10	0.00	0.01	(-0.18 0.20)	0.21	0.09	0.00	0.21	(0.03 0.38)	-0.08	0.09	0.00	-0.08	(-0.26 0.11)
constant	-1.89	0.66	0.01	-1.88	(-3.20 -0.62)	0.78	0.63	0.01	0.79	(-0.45 2.02)	0.21	0.65	0.01	0.21	(-1.07 1.48)
σ_ϵ	0.96	0.03	0.00	0.96	(0.89 1.00)	0.88	0.02	0.00	0.88	(0.83 0.92)	0.92	0.03	0.00	0.93	(0.86 0.97)
σ_ζ	0.14	0.10	0.01	0.12	(0.01 0.38)	0.11	0.09	0.01	0.09	(0.01 0.33)	0.16	0.10	0.01	0.14	(0.05 0.39)
$\rho_{\zeta\xi}$	-0.06	0.59	0.05	-0.13	(-0.94 0.96)	0.32	0.52	0.05	0.42	(-0.80 0.97)	0.04	0.52	0.04	0.02	(-0.85 0.94)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.111: Bayesian Estimates: CSR and # Hospital Admissions (Eq. 1, TP, Age 7)

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
number of hospital admissions	-0.06	0.03	0.00	-0.06	(-0.14 -0.00)	0.06	0.04	0.00	0.06	(-0.02 0.14)	-0.08	0.05	0.00	-0.08	(-0.18 0.01)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.13	0.03	0.00	0.13	(0.07 0.20)	-0.19	0.03	0.00	-0.19	(-0.25 -0.13)	0.19	0.03	0.00	0.18	(0.12 0.25)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.05	0.03	0.00	-0.05	(-0.11 0.01)	0.08	0.03	0.00	0.09	(0.03 0.14)	-0.03	0.03	0.00	-0.03	(-0.09 0.03)
=1 if NVQ level 3	-0.03	0.03	0.00	-0.03	(-0.10 0.04)	0.01	0.03	0.00	0.01	(-0.05 0.08)	-0.05	0.03	0.00	-0.05	(-0.12 0.01)
=1 if overseas qual. only	-0.11	0.10	0.00	-0.11	(-0.31 0.08)	0.24	0.09	0.00	0.24	(0.06 0.42)	-0.23	0.10	0.00	-0.23	(-0.43 -0.04)
=1 if none of these	-0.05	0.06	0.00	-0.05	(-0.17 0.06)	0.13	0.06	0.00	0.13	(0.02 0.24)	-0.06	0.06	0.00	-0.06	(-0.18 0.06)
<i>Mother's age at birth</i>															
=1 if less than 25 years	-0.04	0.05	0.00	-0.04	(-0.14 0.05)	0.28	0.04	0.00	0.28	(0.20 0.37)	0.01	0.05	0.00	0.01	(-0.08 0.10)
=1 if 25 to 29 years	-0.02	0.04	0.00	-0.02	(-0.09 0.06)	0.14	0.03	0.00	0.14	(0.07 0.21)	0.07	0.04	0.00	0.07	(-0.00 0.14)
=1 if 30 to 34 years	-0.04	0.03	0.00	-0.04	(-0.10 0.03)	0.06	0.03	0.00	0.06	(0.00 0.13)	-0.01	0.03	0.00	-0.01	(-0.08 0.05)
<i>Child demography</i>															
=1 if female	0.21	0.02	0.00	0.21	(0.16 0.25)	-0.15	0.02	0.00	-0.15	(-0.19 -0.10)	0.17	0.02	0.00	0.17	(0.12 0.21)
age (years)	0.22	0.05	0.00	0.22	(0.13 0.31)	0.01	0.04	0.00	0.01	(-0.08 0.09)	-0.02	0.05	0.00	-0.02	(-0.10 0.07)
=1 if ethnicity is non-white	-0.10	0.05	0.00	-0.10	(-0.21 0.01)	-0.02	0.05	0.00	-0.02	(-0.12 0.08)	-0.06	0.05	0.00	-0.06	(-0.17 0.04)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.16	0.05	0.00	-0.16	(-0.26 -0.05)	0.15	0.05	0.00	0.15	(0.05 0.25)	-0.11	0.05	0.00	-0.11	(-0.21 -0.01)
<i>Size of household</i>															
log of hh size incl. cm	0.10	0.07	0.00	0.10	(-0.04 0.25)	0.17	0.07	0.00	0.17	(0.04 0.30)	-0.02	0.07	0.00	-0.02	(-0.16 0.12)
<i>Number of older siblings</i>															
=1 if no older siblings	-0.04	0.03	0.00	-0.04	(-0.09 0.02)	0.04	0.03	0.00	0.04	(-0.01 0.09)	0.06	0.03	0.00	0.06	(0.01 0.11)
=1 if two or more older siblings	-0.04	0.04	0.00	-0.04	(-0.12 0.03)	-0.11	0.03	0.00	-0.12	(-0.18 -0.05)	0.02	0.04	0.00	0.02	(-0.05 0.10)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	0.02	0.10	0.00	0.02	(-0.17 0.21)	0.04	0.09	0.00	0.04	(-0.14 0.21)	-0.22	0.09	0.00	-0.22	(-0.41 -0.03)
<i>Country where interview took place</i>															
=1 if wales	0.20	0.12	0.00	0.20	(-0.03 0.43)	-0.07	0.11	0.00	-0.07	(-0.28 0.15)	0.20	0.12	0.00	0.20	(-0.03 0.43)
=1 if nireland	0.35	0.25	0.00	0.35	(-0.13 0.84)	-0.23	0.24	0.00	-0.23	(-0.69 0.23)	0.30	0.25	0.00	0.30	(-0.19 0.78)
=1 if scotland	0.18	0.14	0.00	0.18	(-0.09 0.46)	-0.10	0.13	0.00	-0.10	(-0.36 0.16)	-0.04	0.14	0.00	-0.04	(-0.32 0.23)
Time and Care															
<i>Time mother spends with child</i>															
=1 if at least just enough	0.07	0.03	0.00	0.07	(0.02 0.12)	-0.11	0.02	0.00	-0.11	(-0.15 -0.06)	0.06	0.03	0.00	0.06	(0.01 0.11)
<i>Childcare</i>															
=1 if formal childcare	-0.03	0.05	0.00	-0.03	(-0.14 0.07)	0.05	0.05	0.00	0.05	(-0.05 0.15)	-0.00	0.05	0.00	-0.00	(-0.10 0.10)
=1 if informal/ other childcare	-0.03	0.04	0.00	-0.03	(-0.12 0.05)	0.07	0.04	0.00	0.07	(-0.01 0.14)	0.01	0.04	0.00	0.01	(-0.07 0.09)
=1 if grandparent care	0.02	0.03	0.00	0.02	(-0.04 0.07)	-0.02	0.03	0.00	-0.02	(-0.07 0.04)	0.02	0.03	0.00	0.02	(-0.03 0.08)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	0.03	0.03	0.00	0.03	(-0.03 0.08)	-0.06	0.03	0.00	-0.06	(-0.11 -0.01)	0.02	0.03	0.00	0.02	(-0.03 0.08)
=1 if working full-time	0.11	0.06	0.00	0.11	(0.00 0.22)	0.01	0.05	0.00	0.01	(-0.09 0.11)	-0.01	0.06	0.00	-0.01	(-0.12 0.10)
<i>How long mother breastfed child</i>															

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Table A.3.111 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	0.04	0.03	0.00	0.04	(-0.02 0.10)	-0.15	0.03	0.00	-0.15	(-0.21 -0.10)	0.06	0.03	0.00	0.06	(0.00 0.12)
<i>If child is naughty...</i>															
=1 if mother smacks child	-0.35	0.13	0.00	-0.34	(-0.60 -0.10)	0.45	0.12	0.00	0.45	(0.22 0.69)	-0.28	0.13	0.00	-0.28	(-0.52 -0.03)
=1 if mother tells child off	-0.30	0.02	0.00	-0.30	(-0.35 -0.25)	0.56	0.02	0.00	0.56	(0.51 0.60)	-0.44	0.02	0.00	-0.44	(-0.48 -0.39)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.10	0.04	0.00	0.10	(0.01 0.19)	-0.19	0.04	0.00	-0.19	(-0.27 -0.11)	0.14	0.04	0.00	0.14	(0.06 0.23)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.08	0.03	0.00	-0.08	(-0.15 -0.02)	0.09	0.03	0.00	0.09	(0.03 0.15)	-0.04	0.03	0.00	-0.04	(-0.10 0.03)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.02	0.04	0.00	-0.02	(-0.10 0.06)	0.02	0.04	0.00	0.02	(-0.05 0.10)	0.07	0.04	0.00	0.07	(-0.01 0.15)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.03	0.03	0.00	0.03	(-0.03 0.08)	0.11	0.03	0.00	0.11	(0.06 0.16)	-0.03	0.03	0.00	-0.03	(-0.08 0.02)
<i>Maternal mental health</i>															
=1 if high distress	-0.18	0.08	0.00	-0.18	(-0.34 -0.03)	0.49	0.07	0.00	0.49	(0.34 0.63)	-0.38	0.08	0.00	-0.38	(-0.53 -0.23)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.04	0.03	0.00	-0.04	(-0.10 0.02)	0.12	0.03	0.00	0.12	(0.06 0.18)	-0.12	0.03	0.00	-0.12	(-0.18 -0.06)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.03	0.03	0.00	-0.03	(-0.09 0.03)	0.01	0.03	0.00	0.01	(-0.04 0.07)	0.01	0.03	0.00	0.01	(-0.04 0.07)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.01	0.05	0.00	-0.01	(-0.11 0.10)	0.15	0.05	0.00	0.15	(0.06 0.24)	-0.14	0.05	0.00	-0.14	(-0.24 -0.04)
=1 if rented (housing association or private)/ other	0.03	0.04	0.00	0.03	(-0.05 0.12)	0.09	0.04	0.00	0.09	(0.01 0.16)	-0.05	0.04	0.00	-0.05	(-0.13 0.04)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.13	0.06	0.00	0.13	(0.02 0.24)	-0.11	0.05	0.00	-0.11	(-0.21 -0.01)	0.20	0.06	0.00	0.20	(0.09 0.31)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.02	0.05	0.00	-0.02	(-0.12 0.09)	0.13	0.05	0.00	0.13	(0.03 0.23)	-0.04	0.05	0.00	-0.04	(-0.14 0.07)
=1 if managerial/ professional occupation	0.07	0.03	0.00	0.07	(0.01 0.14)	0.01	0.03	0.00	0.01	(-0.05 0.07)	0.03	0.03	0.00	0.03	(-0.03 0.10)
=1 if technical, semi-routine or routine occupation	-0.01	0.03	0.00	-0.01	(-0.07 0.05)	0.03	0.03	0.00	0.03	(-0.02 0.09)	-0.04	0.03	0.00	-0.04	(-0.10 0.02)
=1 if can't remember or father died	-0.01	0.05	0.00	-0.01	(-0.11 0.09)	0.03	0.05	0.00	0.03	(-0.06 0.13)	-0.01	0.05	0.00	-0.01	(-0.11 0.09)
constant	-2.77	0.41	0.00	-2.76	(-3.57 -1.98)	0.78	0.39	0.00	0.78	(0.04 1.54)	-1.03	0.40	0.00	-1.03	(-1.82 -0.25)
σ_ϵ	0.95	0.03	0.00	0.96	(0.88 0.98)	0.88	0.01	0.00	0.88	(0.85 0.90)	0.92	0.03	0.00	0.92	(0.85 0.95)
σ_ζ	0.13	0.11	0.04	0.09	(0.02 0.40)	0.14	0.06	0.01	0.13	(0.05 0.29)	0.22	0.09	0.02	0.22	(0.07 0.43)
$\rho_{\zeta\epsilon}$	0.01	0.44	0.06	0.04	(-0.81 0.78)	-0.13	0.53	0.09	-0.22	(-0.90 0.94)	0.29	0.41	0.05	0.34	(-0.73 0.92)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.112: Bayesian Estimates: CSR and # Hospital Admissions (Eq. 2, LP, Age 7)

	CSR IND					CSR EMO					CSR COO							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Standard Background Controls																		
<i>Income</i>																		
log of permanent family income (weekly, imp.)	-0.07	0.23	0.01	-0.07	(-0.48	0.38)	-0.05	0.21	0.01	-0.04	(-0.47	0.38)	-0.06	0.23	0.02	-0.06	(-0.52	0.39)
<i>Maternal education</i>																		
=1 if NVQ level 1 or 2	0.03	0.23	0.00	0.03	(-0.42	0.49)	0.03	0.23	0.00	0.03	(-0.44	0.49)	0.03	0.24	0.00	0.03	(-0.43	0.50)
=1 if NVQ level 3	0.13	0.27	0.00	0.13	(-0.40	0.66)	0.13	0.27	0.00	0.13	(-0.41	0.66)	0.13	0.27	0.00	0.13	(-0.40	0.67)
=1 if overseas qual. only	-0.25	0.56	0.01	-0.23	(-1.40	0.79)	-0.26	0.55	0.01	-0.25	(-1.36	0.78)	-0.25	0.56	0.01	-0.24	(-1.36	0.82)
=1 if none of these	0.46	0.31	0.00	0.46	(-0.15	1.07)	0.46	0.31	0.00	0.46	(-0.14	1.06)	0.46	0.31	0.00	0.47	(-0.14	1.06)
<i>Mother's age at birth</i>																		
=1 if less than 25 years	-0.18	0.31	0.00	-0.18	(-0.79	0.44)	-0.18	0.32	0.00	-0.18	(-0.79	0.45)	-0.18	0.31	0.00	-0.18	(-0.80	0.44)
=1 if 25 to 29 years	-0.25	0.30	0.00	-0.25	(-0.81	0.33)	-0.26	0.29	0.00	-0.26	(-0.83	0.32)	-0.25	0.30	0.00	-0.25	(-0.82	0.34)
=1 if 30 to 34 years	-0.34	0.31	0.00	-0.34	(-0.94	0.26)	-0.34	0.31	0.00	-0.34	(-0.94	0.26)	-0.34	0.30	0.00	-0.35	(-0.93	0.26)
<i>Child demography</i>																		
=1 if female	-0.12	0.18	0.00	-0.12	(-0.47	0.22)	-0.13	0.18	0.00	-0.12	(-0.48	0.22)	-0.12	0.18	0.00	-0.13	(-0.47	0.22)
age (years)	-0.41	0.26	0.02	-0.40	(-0.93	0.11)	-0.43	0.26	0.02	-0.42	(-0.94	0.07)	-0.39	0.26	0.02	-0.39	(-0.91	0.14)
=1 if ethnicity is non-white	0.02	0.32	0.00	0.03	(-0.62	0.64)	0.03	0.32	0.00	0.04	(-0.60	0.65)	0.03	0.32	0.00	0.03	(-0.63	0.66)
<i>Child's health endowment</i>																		
=1 if birth weight < 2500g	-0.10	0.34	0.00	-0.10	(-0.78	0.54)	-0.11	0.34	0.00	-0.11	(-0.79	0.54)	-0.10	0.33	0.00	-0.09	(-0.77	0.54)
<i>Size of household</i>																		
log of hh size incl. cm	-0.21	0.31	0.01	-0.21	(-0.83	0.41)	-0.21	0.32	0.01	-0.20	(-0.84	0.41)	-0.22	0.32	0.01	-0.22	(-0.82	0.41)
<i>Number of older siblings</i>																		
=1 if no older siblings	-0.10	0.22	0.00	-0.10	(-0.53	0.33)	-0.09	0.22	0.00	-0.09	(-0.54	0.34)	-0.10	0.22	0.00	-0.10	(-0.53	0.33)
=1 if two or more older siblings	-0.38	0.28	0.00	-0.37	(-0.93	0.15)	-0.38	0.28	0.00	-0.38	(-0.94	0.17)	-0.38	0.28	0.00	-0.37	(-0.93	0.17)
<i>Respondent's relationship to child</i>																		
=1 if natural mother of child	0.22	0.60	0.02	0.20	(-0.92	1.44)	0.21	0.60	0.02	0.19	(-0.92	1.43)	0.21	0.59	0.02	0.19	(-0.88	1.42)
<i>Country where interview took place</i>																		
=1 if wales	0.25	0.56	0.01	0.26	(-0.85	1.34)	0.26	0.54	0.01	0.26	(-0.81	1.33)	0.27	0.54	0.01	0.27	(-0.82	1.31)
=1 if nireland	-0.16	0.61	0.01	-0.16	(-1.38	1.03)	-0.15	0.62	0.01	-0.15	(-1.37	1.08)	-0.15	0.61	0.01	-0.14	(-1.34	1.06)
=1 if scotland	-0.29	0.59	0.01	-0.28	(-1.46	0.87)	-0.30	0.59	0.01	-0.30	(-1.46	0.84)	-0.29	0.58	0.01	-0.29	(-1.48	0.83)
Time and Care																		
<i>Time mother spends with child</i>																		
=1 if at least just enough	-0.06	0.20	0.00	-0.06	(-0.44	0.33)	-0.05	0.20	0.00	-0.05	(-0.43	0.34)	-0.06	0.20	0.00	-0.06	(-0.44	0.34)
<i>Childcare</i>																		
=1 if formal childcare	0.05	0.39	0.00	0.05	(-0.73	0.80)	0.05	0.39	0.00	0.05	(-0.72	0.79)	0.04	0.39	0.00	0.05	(-0.75	0.79)
=1 if informal/ other childcare	0.41	0.30	0.00	0.41	(-0.18	0.99)	0.40	0.30	0.00	0.40	(-0.20	0.99)	0.41	0.30	0.00	0.41	(-0.18	0.99)
=1 if grandparent care	0.39	0.21	0.00	0.40	(-0.01	0.80)	0.40	0.21	0.00	0.40	(-0.00	0.82)	0.39	0.21	0.00	0.39	(-0.01	0.79)
<i>Maternal employment (t - 1)</i>																		
=1 if working part-time	-0.16	0.21	0.00	-0.16	(-0.58	0.25)	-0.17	0.21	0.00	-0.16	(-0.58	0.25)	-0.17	0.21	0.00	-0.17	(-0.58	0.23)
=1 if working full-time	-0.61	0.49	0.01	-0.60	(-1.60	0.33)	-0.63	0.48	0.01	-0.62	(-1.58	0.27)	-0.62	0.48	0.01	-0.61	(-1.58	0.30)
<i>How long mother breastfed child</i>																		
=1 if at least 6 months	-0.26	0.30	0.00	-0.26	(-0.86	0.31)	-0.27	0.30	0.00	-0.26	(-0.88	0.32)	-0.27	0.30	0.00	-0.27	(-0.88	0.30)
<i>If child is naughty...</i>																		

continued on next page

Table A.3.112 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	-0.08	0.53	0.01	-0.07	(-1.14 0.93)	-0.11	0.53	0.01	-0.10	(-1.16 0.90)	-0.06	0.52	0.01	-0.06	(-1.10 0.96)
=1 if mother tells child off	0.28	0.18	0.00	0.28	(-0.08 0.64)	0.28	0.18	0.00	0.28	(-0.07 0.62)	0.28	0.18	0.00	0.28	(-0.08 0.64)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.15	0.26	0.00	0.15	(-0.36 0.66)	0.15	0.26	0.00	0.14	(-0.35 0.68)	0.14	0.26	0.00	0.14	(-0.36 0.67)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.34	0.24	0.00	-0.34	(-0.82 0.12)	-0.34	0.24	0.00	-0.34	(-0.81 0.11)	-0.34	0.24	0.00	-0.34	(-0.81 0.13)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	0.20	0.38	0.01	0.19	(-0.52 0.94)	0.20	0.37	0.01	0.19	(-0.51 0.93)	0.20	0.38	0.01	0.19	(-0.53 0.97)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.24	0.20	0.00	0.24	(-0.15 0.62)	0.24	0.20	0.00	0.24	(-0.13 0.63)	0.24	0.20	0.00	0.24	(-0.14 0.63)
<i>Maternal mental health</i>															
=1 if high distress	-0.18	0.39	0.00	-0.18	(-0.96 0.56)	-0.20	0.40	0.00	-0.19	(-1.00 0.55)	-0.20	0.40	0.00	-0.19	(-1.00 0.57)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.01	0.19	0.00	0.01	(-0.36 0.37)	0.01	0.18	0.00	0.01	(-0.35 0.38)	0.00	0.19	0.00	0.01	(-0.37 0.37)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.42	0.29	0.00	-0.42	(-1.01 0.13)	-0.42	0.29	0.00	-0.42	(-1.00 0.13)	-0.42	0.29	0.00	-0.41	(-0.99 0.13)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.29	0.26	0.00	0.29	(-0.22 0.79)	0.30	0.26	0.00	0.30	(-0.19 0.82)	0.28	0.26	0.00	0.28	(-0.22 0.79)
=1 if rented (housing association or private)/ other	-0.14	0.25	0.00	-0.14	(-0.62 0.35)	-0.13	0.25	0.00	-0.13	(-0.61 0.35)	-0.14	0.25	0.00	-0.14	(-0.63 0.35)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	-0.45	0.31	0.00	-0.46	(-1.05 0.17)	-0.45	0.32	0.01	-0.45	(-1.07 0.19)	-0.47	0.32	0.01	-0.47	(-1.08 0.17)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.10	0.30	0.00	0.11	(-0.48 0.69)	0.11	0.30	0.00	0.11	(-0.48 0.69)	0.10	0.30	0.00	0.10	(-0.48 0.68)
=1 if managerial/ professional occupation	0.11	0.29	0.00	0.11	(-0.46 0.67)	0.10	0.29	0.00	0.11	(-0.45 0.67)	0.11	0.29	0.00	0.11	(-0.47 0.67)
=1 if technical, semi-routine or routine occupation	0.43	0.22	0.00	0.43	(0.01 0.86)	0.44	0.21	0.00	0.44	(0.02 0.86)	0.43	0.22	0.00	0.43	(0.01 0.85)
=1 if can't remember or father died	-0.37	0.36	0.00	-0.37	(-1.10 0.34)	-0.37	0.36	0.00	-0.36	(-1.07 0.32)	-0.37	0.36	0.00	-0.36	(-1.09 0.33)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	0.04	0.28	0.00	0.04	(-0.53 0.61)	0.05	0.28	0.00	0.05	(-0.53 0.61)	0.04	0.28	0.00	0.04	(-0.54 0.58)
constant	0.29	0.97	0.05	0.31	(-1.59 2.13)	0.25	0.96	0.05	0.26	(-1.63 2.15)	0.20	0.91	0.04	0.19	(-1.54 2.00)
α	0.75	0.29	0.01	0.69	(0.38 1.47)	0.77	0.31	0.01	0.70	(0.38 1.56)	0.76	0.30	0.01	0.69	(0.38 1.55)
$\ln\alpha$	-0.36	0.34	0.01	-0.38	(-0.96 0.38)	-0.33	0.36	0.01	-0.36	(-0.96 0.45)	-0.34	0.35	0.01	-0.37	(-0.97 0.44)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.113: Bayesian Estimates: CSR and # Hospital Admissions (Eq. 2, TP, Age 7)

	CSR IND					CSR EMO					CSR COO					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls																
<i>Income</i>																
log of permanent family income (weekly, imp.)	-0.13	0.10	0.01	-0.13	(-0.32 0.08)	-0.13	0.11	0.01	-0.13	(-0.34 0.08)	-0.14	0.11	0.01	-0.14	(-0.36 0.07)	
<i>Maternal education</i>																
=1 if NVQ level 1 or 2	0.02	0.10	0.00	0.02	(-0.19 0.22)	0.02	0.10	0.00	0.02	(-0.18 0.22)	0.02	0.10	0.00	0.02	(-0.18 0.22)	
=1 if NVQ level 3	-0.21	0.12	0.00	-0.21	(-0.46 0.03)	-0.21	0.12	0.00	-0.21	(-0.45 0.03)	-0.21	0.13	0.00	-0.21	(-0.46 0.03)	
=1 if overseas qual. only	0.73	0.27	0.00	0.73	(0.20 1.25)	0.73	0.27	0.00	0.73	(0.19 1.26)	0.72	0.27	0.00	0.72	(0.19 1.24)	
=1 if none of these	-0.10	0.19	0.00	-0.10	(-0.49 0.27)	-0.10	0.19	0.00	-0.10	(-0.48 0.26)	-0.11	0.19	0.00	-0.11	(-0.49 0.26)	
<i>Mother's age at birth</i>																
=1 if less than 25 years	0.06	0.16	0.00	0.06	(-0.25 0.37)	0.06	0.16	0.00	0.06	(-0.25 0.37)	0.06	0.15	0.00	0.06	(-0.25 0.36)	
=1 if 25 to 29 years	0.11	0.13	0.00	0.11	(-0.14 0.35)	0.11	0.13	0.00	0.11	(-0.14 0.35)	0.11	0.13	0.00	0.11	(-0.14 0.35)	
=1 if 30 to 34 years	0.00	0.12	0.00	-0.00	(-0.23 0.24)	0.01	0.12	0.00	0.01	(-0.22 0.24)	0.00	0.12	0.00	0.00	(-0.23 0.23)	
<i>Child demography</i>																
=1 if female	-0.48	0.08	0.00	-0.48	(-0.63 -0.32)	-0.48	0.08	0.00	-0.48	(-0.64 -0.32)	-0.48	0.08	0.00	-0.47	(-0.64 -0.32)	
age (years)	-0.25	0.15	0.01	-0.25	(-0.55 0.03)	-0.25	0.14	0.01	-0.25	(-0.54 0.01)	-0.24	0.14	0.01	-0.24	(-0.53 0.03)	
=1 if ethnicity is non-white	-0.01	0.19	0.00	-0.01	(-0.39 0.36)	-0.01	0.19	0.00	-0.01	(-0.38 0.34)	-0.02	0.19	0.00	-0.02	(-0.40 0.34)	
<i>Child's health endowment</i>																
=1 if birth weight < 2500g	0.07	0.18	0.00	0.07	(-0.28 0.40)	0.07	0.18	0.00	0.07	(-0.28 0.41)	0.06	0.18	0.00	0.07	(-0.29 0.40)	
<i>Size of household</i>																
log of hh size incl. cm	-0.23	0.23	0.01	-0.23	(-0.68 0.21)	-0.21	0.23	0.01	-0.21	(-0.67 0.24)	-0.23	0.23	0.01	-0.23	(-0.67 0.21)	
<i>Number of older siblings</i>																
=1 if no older siblings	0.03	0.10	0.00	0.04	(-0.16 0.23)	0.04	0.10	0.00	0.04	(-0.16 0.22)	0.03	0.10	0.00	0.03	(-0.16 0.22)	
=1 if two or more older siblings	0.05	0.13	0.00	0.05	(-0.19 0.31)	0.05	0.13	0.00	0.05	(-0.20 0.30)	0.05	0.13	0.00	0.06	(-0.20 0.30)	
<i>Respondent's relationship to child</i>																
=1 if natural mother of child	0.30	0.36	0.01	0.29	(-0.36 1.06)	0.35	0.36	0.01	0.34	(-0.32 1.07)	0.31	0.36	0.01	0.29	(-0.38 1.05)	
<i>Country where interview took place</i>																
=1 if wales	0.38	0.36	0.01	0.38	(-0.32 1.07)	0.37	0.35	0.01	0.37	(-0.32 1.07)	0.38	0.36	0.01	0.39	(-0.31 1.08)	
=1 if nireland	0.52	0.50	0.01	0.52	(-0.46 1.49)	0.50	0.50	0.01	0.50	(-0.48 1.50)	0.47	0.52	0.01	0.48	(-0.55 1.45)	
=1 if scotland	0.24	0.40	0.01	0.24	(-0.53 1.02)	0.24	0.39	0.01	0.24	(-0.51 1.02)	0.24	0.39	0.01	0.24	(-0.53 1)	
Time and Care																
<i>Time mother spends with child</i>																
=1 if at least just enough	0.15	0.09	0.00	0.15	(-0.02 0.33)	0.15	0.09	0.00	0.15	(-0.02 0.33)	0.15	0.09	0.00	0.15	(-0.02 0.33)	
<i>Childcare</i>																
=1 if formal childcare	-0.47	0.21	0.00	-0.47	(-0.89 -0.07)	-0.48	0.21	0.00	-0.47	(-0.89 -0.08)	-0.47	0.21	0.00	-0.47	(-0.89 -0.08)	
=1 if informal/ other childcare	-0.04	0.16	0.00	-0.04	(-0.35 0.26)	-0.04	0.16	0.00	-0.04	(-0.35 0.26)	-0.04	0.16	0.00	-0.04	(-0.35 0.27)	
=1 if grandparent care	-0.03	0.10	0.00	-0.03	(-0.23 0.16)	-0.04	0.10	0.00	-0.04	(-0.23 0.15)	-0.04	0.10	0.00	-0.03	(-0.22 0.15)	
<i>Maternal employment (t - 1)</i>																
=1 if working part-time	0.04	0.09	0.00	0.04	(-0.15 0.22)	0.04	0.09	0.00	0.04	(-0.15 0.22)	0.04	0.09	0.00	0.04	(-0.14 0.22)	
=1 if working full-time	0.16	0.19	0.00	0.16	(-0.21 0.52)	0.17	0.19	0.00	0.17	(-0.21 0.53)	0.17	0.19	0.00	0.17	(-0.20 0.53)	
<i>How long mother breastfed child</i>																
=1 if at least 6 months	-0.13	0.11	0.00	-0.13	(-0.35 0.09)	-0.13	0.11	0.00	-0.13	(-0.34 0.09)	-0.13	0.11	0.00	-0.13	(-0.34 0.08)	
<i>If child is naughty...</i>																

continued on next page

Table A.3.113 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.33	0.30	0.00	0.34	(-0.26 0.91)	0.33	0.30	0.00	0.34	(-0.27 0.90)	0.34	0.30	0.00	0.35	(-0.25 0.92)
=1 if mother tells child off	-0.07	0.08	0.00	-0.07	(-0.23 0.09)	-0.07	0.09	0.00	-0.07	(-0.23 0.10)	-0.06	0.08	0.00	-0.06	(-0.23 0.11)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	-0.21	0.14	0.00	-0.21	(-0.47 0.07)	-0.21	0.14	0.00	-0.21	(-0.48 0.07)	-0.21	0.14	0.00	-0.21	(-0.48 0.07)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.06	0.12	0.00	-0.06	(-0.29 0.17)	-0.06	0.12	0.00	-0.05	(-0.29 0.18)	-0.05	0.12	0.00	-0.05	(-0.29 0.18)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.17	0.19	0.00	-0.18	(-0.54 0.20)	-0.17	0.19	0.00	-0.17	(-0.54 0.21)	-0.17	0.19	0.00	-0.18	(-0.54 0.20)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.40	0.09	0.00	0.40	(0.22 0.57)	0.40	0.09	0.00	0.40	(0.22 0.57)	0.40	0.09	0.00	0.40	(0.23 0.57)
<i>Maternal mental health</i>															
=1 if high distress	-0.11	0.25	0.00	-0.11	(-0.62 0.39)	-0.11	0.26	0.00	-0.10	(-0.63 0.39)	-0.09	0.25	0.00	-0.09	(-0.60 0.39)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.21	0.10	0.00	0.21	(0.01 0.40)	0.21	0.10	0.00	0.21	(0.01 0.40)	0.20	0.10	0.00	0.20	(0.01 0.40)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.03	0.10	0.00	-0.03	(-0.23 0.18)	-0.03	0.10	0.00	-0.03	(-0.24 0.17)	-0.03	0.11	0.00	-0.03	(-0.24 0.17)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.29	0.17	0.00	-0.29	(-0.62 0.03)	-0.30	0.17	0.00	-0.30	(-0.62 0.03)	-0.30	0.17	0.00	-0.30	(-0.64 0.02)
=1 if rented (housing association or private)/ other	-0.18	0.14	0.00	-0.18	(-0.46 0.10)	-0.18	0.14	0.00	-0.18	(-0.46 0.09)	-0.19	0.14	0.00	-0.19	(-0.47 0.09)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	-0.06	0.20	0.00	-0.07	(-0.46 0.34)	-0.05	0.21	0.00	-0.06	(-0.45 0.36)	-0.07	0.20	0.00	-0.07	(-0.46 0.34)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.17	0.16	0.00	0.17	(-0.16 0.49)	0.17	0.17	0.00	0.17	(-0.16 0.50)	0.16	0.16	0.00	0.17	(-0.16 0.49)
=1 if managerial/ professional occupation	-0.11	0.11	0.00	-0.11	(-0.34 0.11)	-0.11	0.12	0.00	-0.11	(-0.34 0.12)	-0.11	0.12	0.00	-0.11	(-0.33 0.12)
=1 if technical, semi-routine or routine occupation	-0.08	0.10	0.00	-0.08	(-0.27 0.11)	-0.08	0.10	0.00	-0.08	(-0.27 0.12)	-0.08	0.10	0.00	-0.08	(-0.27 0.11)
=1 if can't remember or father died	-0.09	0.18	0.00	-0.09	(-0.44 0.25)	-0.09	0.18	0.00	-0.09	(-0.44 0.26)	-0.09	0.18	0.00	-0.09	(-0.45 0.25)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	0.18	0.17	0.00	0.18	(-0.16 0.51)	0.18	0.17	0.00	0.18	(-0.15 0.51)	0.18	0.17	0.00	0.18	(-0.16 0.51)
constant	0.10	0.82	0.07	0.09	(-1.47 1.70)	0.02	0.81	0.07	0.03	(-1.59 1.49)	0.09	0.80	0.07	0.10	(-1.46 1.68)
α	0.85	0.16	0.01	0.82	(0.59 1.24)	0.85	0.15	0.01	0.84	(0.61 1.20)	0.85	0.16	0.01	0.83	(0.60 1.20)
$\ln\alpha$	-0.18	0.19	0.01	-0.19	(-0.52 0.21)	-0.17	0.17	0.01	-0.18	(-0.49 0.18)	-0.18	0.18	0.01	-0.19	(-0.51 0.18)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.114: Bayesian Estimates: CSR and SDQ HA (Eq. 1, LP, Age 7)

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
Child Health ($t - 1$)															
hyperactivity/inattention	-0.16	0.03	0.00	-0.16	(-0.21 -0.12)	0.21	0.02	0.00	0.21	(0.16 0.25)	-0.17	0.03	0.00	-0.18	(-0.22 -0.12)
Standard Background Controls															
<i>Income</i>															
log of permanent family income (weekly, imp.)	0.01	0.07	0.00	0.01	(-0.13 0.15)	-0.06	0.06	0.00	-0.06	(-0.18 0.06)	-0.04	0.07	0.00	-0.04	(-0.17 0.10)
<i>Maternal education</i>															
=1 if NVQ level 1 or 2	-0.09	0.07	0.00	-0.09	(-0.24 0.05)	0.12	0.06	0.00	0.12	(-0.00 0.25)	-0.01	0.07	0.00	-0.01	(-0.15 0.13)
=1 if NVQ level 3	0.06	0.08	0.00	0.06	(-0.10 0.23)	0.13	0.07	0.00	0.13	(-0.02 0.27)	-0.05	0.08	0.00	-0.05	(-0.20 0.11)
=1 if overseas qual. only	-0.28	0.19	0.00	-0.28	(-0.66 0.10)	-0.00	0.17	0.00	-0.00	(-0.34 0.33)	-0.07	0.19	0.00	-0.07	(-0.44 0.30)
=1 if none of these	0.03	0.11	0.00	0.03	(-0.18 0.25)	0.11	0.10	0.00	0.11	(-0.07 0.30)	0.03	0.11	0.00	0.03	(-0.18 0.24)
<i>Mother's age at birth</i>															
=1 if less than 25 years	0.32	0.11	0.00	0.32	(0.10 0.54)	0.33	0.10	0.00	0.33	(0.14 0.53)	0.09	0.11	0.00	0.10	(-0.12 0.31)
=1 if 25 to 29 years	0.09	0.10	0.00	0.09	(-0.11 0.28)	0.25	0.09	0.00	0.25	(0.09 0.43)	0.01	0.10	0.00	0.01	(-0.17 0.20)
=1 if 30 to 34 years	-0.03	0.10	0.00	-0.03	(-0.22 0.17)	0.10	0.09	0.00	0.10	(-0.07 0.27)	0.09	0.10	0.00	0.09	(-0.10 0.28)
<i>Child demography</i>															
=1 if female	-0.00	0.06	0.00	-0.00	(-0.11 0.11)	-0.01	0.05	0.00	-0.01	(-0.11 0.09)	0.06	0.06	0.00	0.06	(-0.05 0.17)
age (years)	0.17	0.09	0.00	0.17	(-0.00 0.34)	-0.12	0.08	0.00	-0.12	(-0.28 0.04)	-0.01	0.09	0.00	-0.01	(-0.18 0.16)
=1 if ethnicity is non-white	0.34	0.10	0.00	0.34	(0.13 0.55)	-0.09	0.09	0.00	-0.09	(-0.27 0.09)	-0.07	0.10	0.00	-0.07	(-0.27 0.13)
<i>Child's health endowment</i>															
=1 if birth weight < 2500g	-0.23	0.12	0.00	-0.23	(-0.46 -0.00)	0.13	0.10	0.00	0.13	(-0.08 0.33)	-0.00	0.11	0.00	-0.00	(-0.22 0.22)
<i>Size of household</i>															
log of hh size incl. cm	-0.08	0.11	0.00	-0.08	(-0.30 0.13)	0.29	0.09	0.00	0.29	(0.10 0.48)	0.03	0.11	0.00	0.03	(-0.18 0.23)
<i>Number of older siblings</i>															
=1 if no older siblings	0.02	0.07	0.00	0.02	(-0.12 0.16)	0.02	0.06	0.00	0.02	(-0.10 0.14)	0.03	0.07	0.00	0.03	(-0.10 0.16)
=1 if two or more older siblings	0.21	0.09	0.00	0.21	(0.04 0.37)	-0.14	0.07	0.00	-0.14	(-0.29 0.01)	-0.03	0.08	0.00	-0.03	(-0.19 0.13)
<i>Respondent's relationship to child</i>															
=1 if natural mother of child	0.01	0.16	0.00	0.01	(-0.30 0.32)	0.03	0.14	0.00	0.03	(-0.25 0.30)	-0.11	0.15	0.00	-0.11	(-0.42 0.18)
<i>Country where interview took place</i>															
=1 if wales	0.14	0.30	0.00	0.14	(-0.44 0.72)	0.05	0.27	0.00	0.05	(-0.47 0.58)	-0.02	0.29	0.00	-0.02	(-0.59 0.55)
=1 if nireland	-0.60	0.50	0.00	-0.59	(-1.57 0.38)	0.18	0.48	0.00	0.19	(-0.78 1.12)	-0.41	0.49	0.00	-0.40	(-1.37 0.56)
=1 if scotland	0.27	0.31	0.00	0.26	(-0.34 0.88)	0.03	0.28	0.00	0.03	(-0.52 0.57)	-0.19	0.30	0.00	-0.19	(-0.77 0.40)
Time and Care															
<i>Time mother spents with child</i>															
=1 if at least just enough	0.11	0.06	0.00	0.11	(-0.01 0.22)	-0.00	0.05	0.00	-0.00	(-0.10 0.10)	-0.07	0.06	0.00	-0.07	(-0.18 0.04)
<i>Childcare</i>															
=1 if formal childcare	0.07	0.11	0.00	0.07	(-0.15 0.28)	0.20	0.10	0.00	0.20	(0.01 0.39)	-0.06	0.11	0.00	-0.06	(-0.27 0.15)
=1 if informal/ other childcare	0.08	0.09	0.00	0.08	(-0.09 0.26)	-0.05	0.08	0.00	-0.05	(-0.20 0.09)	-0.16	0.08	0.00	-0.16	(-0.33 0.00)
=1 if grandparent care	0.11	0.07	0.00	0.11	(-0.02 0.24)	-0.05	0.06	0.00	-0.05	(-0.16 0.07)	0.02	0.06	0.00	0.02	(-0.11 0.14)
<i>Maternal employment ($t - 1$)</i>															
=1 if working part-time	0.07	0.07	0.00	0.07	(-0.06 0.20)	-0.07	0.06	0.00	-0.07	(-0.19 0.04)	0.08	0.06	0.00	0.08	(-0.04 0.20)
=1 if working full-time	0.13	0.13	0.00	0.14	(-0.11 0.38)	-0.08	0.11	0.00	-0.08	(-0.30 0.14)	0.13	0.12	0.00	0.13	(-0.12 0.37)
<i>How long mother breastfed child</i>															

continued on next page

Table A.3.114 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	-0.09	0.09	0.00	-0.09	(-0.26 0.09)	-0.04	0.08	0.00	-0.04	(-0.19 0.11)	0.15	0.09	0.00	0.15	(-0.01 0.32)
<i>If child is naughty...</i>															
=1 if mother smacks child	0.14	0.26	0.00	0.14	(-0.39 0.65)	0.48	0.23	0.00	0.48	(0.03 0.94)	-0.97	0.25	0.00	-0.97	(-1.46 -0.48)
=1 if mother tells child off	-0.08	0.06	0.00	-0.08	(-0.19 0.03)	0.41	0.05	0.00	0.41	(0.31 0.51)	-0.33	0.06	0.00	-0.33	(-0.44 -0.22)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.16	0.09	0.00	0.17	(-0.01 0.34)	-0.07	0.08	0.00	-0.07	(-0.22 0.08)	0.08	0.09	0.00	0.08	(-0.09 0.25)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.12	0.07	0.00	-0.12	(-0.26 0.02)	0.04	0.06	0.00	0.04	(-0.08 0.16)	-0.01	0.07	0.00	-0.01	(-0.15 0.12)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.04	0.09	0.00	-0.04	(-0.21 0.13)	-0.12	0.08	0.00	-0.13	(-0.27 0.02)	0.16	0.08	0.00	0.16	(-0.00 0.32)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.00	0.06	0.00	0.00	(-0.12 0.13)	0.10	0.05	0.00	0.10	(-0.01 0.21)	-0.04	0.06	0.00	-0.04	(-0.16 0.07)
<i>Maternal mental health</i>															
=1 if high distress	0.06	0.12	0.00	0.06	(-0.17 0.29)	0.17	0.10	0.00	0.17	(-0.03 0.37)	-0.16	0.11	0.00	-0.15	(-0.37 0.07)
<i>Does mother currently smoke</i>															
=1 if currently smokes	-0.03	0.06	0.00	-0.03	(-0.14 0.08)	0.05	0.05	0.00	0.05	(-0.05 0.16)	-0.06	0.06	0.00	-0.06	(-0.17 0.05)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.01	0.07	0.00	-0.01	(-0.16 0.13)	0.13	0.07	0.00	0.13	(0.01 0.26)	-0.02	0.07	0.00	-0.02	(-0.16 0.13)
Other															
<i>Housing tenure</i>															
=1 if council rented	-0.12	0.09	0.00	-0.12	(-0.30 0.05)	0.01	0.08	0.00	0.01	(-0.14 0.16)	-0.09	0.09	0.00	-0.09	(-0.26 0.08)
=1 if rented (housing association or private)/ other	-0.01	0.07	0.00	-0.01	(-0.16 0.14)	-0.08	0.07	0.00	-0.08	(-0.21 0.05)	0.04	0.07	0.00	0.04	(-0.10 0.19)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.11	0.11	0.00	0.11	(-0.09 0.32)	0.01	0.09	0.00	0.01	(-0.16 0.19)	-0.07	0.10	0.00	-0.07	(-0.27 0.13)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	-0.04	0.10	0.00	-0.04	(-0.23 0.16)	0.10	0.09	0.00	0.10	(-0.07 0.27)	-0.03	0.09	0.00	-0.03	(-0.21 0.16)
=1 if managerial/ professional occupation	0.02	0.09	0.00	0.02	(-0.15 0.19)	0.08	0.08	0.00	0.08	(-0.07 0.23)	-0.01	0.08	0.00	-0.01	(-0.17 0.16)
=1 if technical, semi-routine or routine occupation	0.01	0.07	0.00	0.01	(-0.12 0.14)	-0.00	0.06	0.00	-0.00	(-0.12 0.11)	-0.02	0.06	0.00	-0.02	(-0.14 0.11)
=1 if can't remember or father died	0.10	0.11	0.00	0.10	(-0.12 0.31)	0.16	0.09	0.00	0.16	(-0.02 0.35)	-0.02	0.10	0.00	-0.02	(-0.22 0.18)
constant	-1.08	0.69	0.01	-1.10	(-2.45 0.29)	-0.23	0.64	0.01	-0.24	(-1.48 1.04)	1.00	0.68	0.01	0.99	(-0.33 2.35)
σ_ϵ	0.90	0.04	0.00	0.90	(0.81 0.96)	0.76	0.04	0.00	0.76	(0.68 0.82)	0.85	0.04	0.00	0.85	(0.76 0.91)
σ_ζ	0.24	0.12	0.01	0.24	(0.04 0.48)	0.30	0.10	0.01	0.31	(0.06 0.48)	0.32	0.11	0.01	0.33	(0.09 0.53)
$\rho_{\zeta\epsilon}$	0.60	0.34	0.01	0.69	(-0.31 0.99)	-0.84	0.16	0.01	-0.88	(-1.00 -0.43)	0.78	0.26	0.01	0.85	(0.09 0.99)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.115: Bayesian Estimates: CSR and SDQ HA (Eq. 1, TP, Age 7)

	CSR IND					CSR EMO					CSR COO					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Child Health ($t - 1$)																
hyperactivity/inattention	-0.22	0.01	0.00	-0.22	(-0.25 -0.20)	0.32	0.01	0.00	0.32	(0.30 0.34)	-0.26	0.01	0.00	-0.26	(-0.29 -0.24)	
Standard Background Controls																
<i>Income</i>																
log of permanent family income (weekly, imp.)	0.07	0.04	0.00	0.07	(-0.00 0.14)	-0.06	0.03	0.00	-0.06	(-0.12 0.01)	0.10	0.04	0.00	0.10	(0.03 0.17)	
<i>Maternal education</i>																
=1 if NVQ level 1 or 2	0.03	0.03	0.00	0.03	(-0.03 0.10)	-0.03	0.03	0.00	-0.03	(-0.08 0.03)	0.06	0.03	0.00	0.06	(-0.01 0.12)	
=1 if NVQ level 3	0.03	0.04	0.00	0.03	(-0.04 0.11)	-0.06	0.03	0.00	-0.06	(-0.13 0.00)	0.01	0.04	0.00	0.01	(-0.06 0.09)	
=1 if overseas qual. only	-0.10	0.11	0.00	-0.10	(-0.33 0.12)	0.12	0.11	0.00	0.12	(-0.10 0.32)	-0.17	0.12	0.00	-0.17	(-0.40 0.06)	
=1 if none of these	0.07	0.07	0.00	0.07	(-0.07 0.20)	-0.00	0.06	0.00	-0.00	(-0.13 0.12)	0.12	0.07	0.00	0.12	(-0.01 0.26)	
<i>Mother's age at birth</i>																
=1 if less than 25 years	0.02	0.05	0.00	0.02	(-0.08 0.12)	0.17	0.05	0.00	0.17	(0.08 0.27)	0.10	0.05	0.00	0.10	(-0.00 0.20)	
=1 if 25 to 29 years	-0.01	0.04	0.00	-0.01	(-0.09 0.06)	0.12	0.04	0.00	0.12	(0.05 0.19)	0.09	0.04	0.00	0.09	(0.01 0.17)	
=1 if 30 to 34 years	-0.01	0.04	0.00	-0.01	(-0.08 0.06)	0.04	0.03	0.00	0.04	(-0.02 0.11)	0.04	0.04	0.00	0.04	(-0.04 0.11)	
<i>Child demography</i>																
=1 if female	0.08	0.03	0.00	0.08	(0.02 0.13)	0.05	0.02	0.00	0.05	(0.01 0.10)	-0.01	0.03	0.00	-0.01	(-0.06 0.04)	
age (years)	0.20	0.05	0.00	0.20	(0.10 0.29)	0.01	0.04	0.00	0.01	(-0.08 0.09)	-0.04	0.05	0.00	-0.04	(-0.13 0.06)	
=1 if ethnicity is non-white	-0.05	0.06	0.00	-0.05	(-0.17 0.07)	-0.04	0.06	0.00	-0.04	(-0.15 0.07)	0.03	0.06	0.00	0.03	(-0.09 0.15)	
<i>Child's health endowment</i>																
=1 if birth weight < 2500g	-0.08	0.06	0.00	-0.08	(-0.20 0.03)	0.00	0.06	0.00	0.00	(-0.11 0.11)	0.02	0.06	0.00	0.02	(-0.09 0.14)	
<i>Size of household</i>																
log of hh size incl. cm	0.00	0.08	0.00	0.00	(-0.15 0.15)	0.31	0.07	0.00	0.31	(0.18 0.45)	-0.11	0.08	0.00	-0.11	(-0.26 0.04)	
<i>Number of older siblings</i>																
=1 if no older siblings	-0.04	0.03	0.00	-0.04	(-0.10 0.01)	0.05	0.03	0.00	0.05	(-0.00 0.10)	0.06	0.03	0.00	0.06	(0.00 0.12)	
=1 if two or more older siblings	-0.05	0.04	0.00	-0.06	(-0.13 0.03)	-0.08	0.04	0.00	-0.08	(-0.15 -0.01)	-0.01	0.04	0.00	-0.01	(-0.09 0.07)	
<i>Respondent's relationship to child</i>																
=1 if natural mother of child	-0.01	0.10	0.00	-0.01	(-0.20 0.19)	-0.02	0.09	0.00	-0.02	(-0.20 0.16)	-0.15	0.10	0.00	-0.15	(-0.34 0.05)	
<i>Country where interview took place</i>																
=1 if wales	0.23	0.12	0.00	0.23	(-0.01 0.47)	0.03	0.11	0.00	0.03	(-0.20 0.24)	0.15	0.12	0.00	0.14	(-0.10 0.39)	
=1 if nireland	0.31	0.28	0.00	0.31	(-0.24 0.84)	0.03	0.25	0.00	0.03	(-0.46 0.52)	-0.04	0.27	0.00	-0.04	(-0.58 0.49)	
=1 if scotland	0.10	0.15	0.00	0.10	(-0.19 0.40)	-0.09	0.14	0.00	-0.08	(-0.35 0.18)	-0.16	0.15	0.00	-0.16	(-0.46 0.13)	
Time and Care																
<i>Time mother spent with child</i>																
=1 if at least just enough	0.05	0.03	0.00	0.05	(-0.01 0.10)	-0.04	0.02	0.00	-0.04	(-0.09 0.01)	0.01	0.03	0.00	0.01	(-0.04 0.07)	
<i>Childcare</i>																
=1 if formal childcare	-0.02	0.06	0.00	-0.02	(-0.13 0.09)	0.02	0.05	0.00	0.02	(-0.08 0.11)	0.03	0.06	0.00	0.03	(-0.08 0.14)	
=1 if informal/ other childcare	0.00	0.04	0.00	0.00	(-0.09 0.09)	0.02	0.04	0.00	0.02	(-0.05 0.10)	0.05	0.04	0.00	0.05	(-0.03 0.14)	
=1 if grandparent care	0.02	0.03	0.00	0.02	(-0.04 0.08)	-0.01	0.03	0.00	-0.01	(-0.06 0.05)	0.03	0.03	0.00	0.03	(-0.03 0.09)	
<i>Maternal employment ($t - 1$)</i>																
=1 if working part-time	-0.01	0.03	0.00	-0.01	(-0.07 0.05)	-0.03	0.03	0.00	-0.03	(-0.08 0.02)	-0.00	0.03	0.00	-0.00	(-0.06 0.05)	
=1 if working full-time	0.07	0.06	0.00	0.07	(-0.04 0.19)	0.06	0.05	0.00	0.06	(-0.04 0.16)	-0.08	0.06	0.00	-0.08	(-0.19 0.03)	
<i>How long mother breastfed child</i>																

continued on next page

Table A.3.115 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if at least 6 months	-0.03	0.03	0.00	-0.03	(-0.10 0.03)	-0.05	0.03	0.00	-0.05	(-0.11 0.01)	-0.02	0.03	0.00	-0.02	(-0.09 0.04)
<i>If child is naughty...</i>															
=1 if mother smacks child	-0.24	0.14	0.00	-0.24	(-0.51 0.03)	0.25	0.12	0.00	0.25	(0.01 0.49)	-0.27	0.13	0.00	-0.26	(-0.53 -0.00)
=1 if mother tells child off	-0.11	0.03	0.00	-0.11	(-0.16 -0.06)	0.32	0.02	0.00	0.32	(0.28 0.37)	-0.24	0.03	0.00	-0.24	(-0.29 -0.19)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	0.04	0.05	0.00	0.04	(-0.06 0.13)	-0.09	0.04	0.00	-0.09	(-0.17 -0.00)	0.09	0.05	0.00	0.09	(0.00 0.19)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	-0.00	0.04	0.00	-0.00	(-0.07 0.07)	0.04	0.03	0.00	0.04	(-0.02 0.11)	0.01	0.04	0.00	0.01	(-0.06 0.08)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.03	0.05	0.00	-0.03	(-0.12 0.06)	0.07	0.04	0.00	0.07	(-0.01 0.15)	0.02	0.04	0.00	0.02	(-0.06 0.11)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.03	0.03	0.00	0.03	(-0.03 0.09)	0.10	0.03	0.00	0.10	(0.05 0.15)	-0.03	0.03	0.00	-0.03	(-0.09 0.02)
<i>Maternal mental health</i>															
=1 if high distress	0.00	0.09	0.00	0.00	(-0.17 0.17)	0.25	0.08	0.00	0.25	(0.10 0.40)	-0.17	0.09	0.00	-0.17	(-0.34 -0.00)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.03	0.03	0.00	0.03	(-0.03 0.10)	0.04	0.03	0.00	0.04	(-0.02 0.10)	-0.03	0.03	0.00	-0.03	(-0.10 0.03)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.03	0.03	0.00	-0.03	(-0.09 0.03)	-0.00	0.03	0.00	-0.00	(-0.06 0.05)	0.04	0.03	0.00	0.04	(-0.02 0.10)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.10	0.06	0.00	0.10	(-0.02 0.21)	-0.03	0.05	0.00	-0.03	(-0.13 0.08)	-0.00	0.06	0.00	-0.01	(-0.11 0.10)
=1 if rented (housing association or private)/ other	0.06	0.05	0.00	0.06	(-0.03 0.15)	0.02	0.04	0.00	0.02	(-0.06 0.10)	-0.01	0.05	0.00	-0.01	(-0.10 0.08)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	0.10	0.06	0.00	0.09	(-0.03 0.22)	-0.11	0.06	0.00	-0.11	(-0.22 -0.00)	0.17	0.06	0.00	0.17	(0.06 0.29)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.07	0.06	0.00	0.07	(-0.04 0.18)	0.04	0.05	0.00	0.04	(-0.06 0.14)	0.04	0.06	0.00	0.04	(-0.07 0.15)
=1 if managerial/ professional occupation	0.04	0.03	0.00	0.04	(-0.03 0.11)	0.07	0.03	0.00	0.07	(0.01 0.13)	-0.01	0.04	0.00	-0.01	(-0.08 0.06)
=1 if technical, semi-routine or routine occupation	0.03	0.03	0.00	0.03	(-0.03 0.09)	-0.00	0.03	0.00	-0.00	(-0.06 0.05)	-0.00	0.03	0.00	-0.00	(-0.06 0.06)
=1 if can't remember or father died	0.06	0.06	0.00	0.06	(-0.05 0.17)	-0.03	0.05	0.00	-0.03	(-0.13 0.07)	0.04	0.06	0.00	0.04	(-0.07 0.15)
constant	-1.36	0.43	0.00	-1.37	(-2.21 -0.52)	-1.26	0.39	0.00	-1.26	(-2.03 -0.50)	0.52	0.43	0.00	0.51	(-0.34 1.36)
σ_ϵ	0.84	0.03	0.00	0.85	(0.77 0.89)	0.58	0.03	0.00	0.58	(0.52 0.63)	0.72	0.03	0.00	0.72	(0.65 0.78)
σ_ζ	0.40	0.07	0.00	0.40	(0.28 0.54)	0.64	0.03	0.00	0.64	(0.58 0.70)	0.61	0.05	0.00	0.60	(0.51 0.70)
$\rho_{\zeta\epsilon}$	0.87	0.10	0.01	0.89	(0.64 0.99)	-0.99	0.01	0.00	-0.99	(-1.00 -0.95)	0.97	0.03	0.00	0.98	(0.88 1.00)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.116: Bayesian Estimates: CSR and SDQ HA (Eq. 2, LP, Age 7)

	CSR IND					CSR EMO					CSR COO							
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI			
Standard Background Controls																		
<i>Income</i>																		
log of permanent family income (weekly, imp.)	0.01	0.16	0.00	0.01	(-0.30	0.33)	0.01	0.16	0.00	0.02	(-0.30	0.33)	0.01	0.16	0.00	0.01	(-0.31	0.33)
<i>Maternal education</i>																		
=1 if NVQ level 1 or 2	0.35	0.17	0.00	0.35	(0.02	0.67)	0.32	0.16	0.00	0.32	(0.01	0.64)	0.34	0.16	0.00	0.34	(0.01	0.66)
=1 if NVQ level 3	-0.10	0.19	0.00	-0.10	(-0.48	0.28)	-0.10	0.19	0.00	-0.09	(-0.46	0.28)	-0.09	0.19	0.00	-0.09	(-0.46	0.29)
=1 if overseas qual. only	0.49	0.40	0.00	0.49	(-0.31	1.28)	0.49	0.39	0.00	0.49	(-0.27	1.27)	0.48	0.39	0.00	0.48	(-0.30	1.27)
=1 if none of these	0.50	0.24	0.00	0.50	(0.03	0.98)	0.46	0.24	0.00	0.46	(-0.00	0.93)	0.48	0.24	0.00	0.49	(0.02	0.95)
<i>Mother's age at birth</i>																		
=1 if less than 25 years	0.62	0.24	0.00	0.62	(0.16	1.10)	0.61	0.24	0.00	0.61	(0.13	1.08)	0.61	0.24	0.00	0.60	(0.14	1.08)
=1 if 25 to 29 years	0.43	0.22	0.00	0.43	(0.01	0.86)	0.42	0.22	0.00	0.43	(-0.00	0.85)	0.42	0.22	0.00	0.42	(-0.00	0.86)
=1 if 30 to 34 years	0.43	0.22	0.00	0.43	(0.01	0.86)	0.43	0.22	0.00	0.43	(0.01	0.87)	0.43	0.22	0.00	0.43	(-0.00	0.86)
<i>Child demography</i>																		
=1 if female	-0.52	0.12	0.00	-0.51	(-0.76	-0.27)	-0.51	0.12	0.00	-0.51	(-0.76	-0.27)	-0.52	0.12	0.00	-0.52	(-0.75	-0.27)
age (years)	0.19	0.19	0.00	0.20	(-0.18	0.57)	0.19	0.19	0.00	0.19	(-0.19	0.57)	0.20	0.19	0.00	0.20	(-0.18	0.57)
=1 if ethnicity is non-white	0.27	0.23	0.00	0.27	(-0.20	0.73)	0.27	0.23	0.00	0.27	(-0.18	0.72)	0.27	0.23	0.00	0.27	(-0.18	0.73)
<i>Child's health endowment</i>																		
=1 if birth weight < 2500g	0.43	0.30	0.00	0.43	(-0.15	1.02)	0.48	0.30	0.00	0.49	(-0.10	1.08)	0.46	0.31	0.00	0.46	(-0.13	1.06)
<i>Size of household</i>																		
log of hh size incl. cm	-0.20	0.23	0.00	-0.20	(-0.65	0.25)	-0.17	0.23	0.00	-0.17	(-0.62	0.29)	-0.15	0.23	0.00	-0.15	(-0.58	0.30)
<i>Number of older siblings</i>																		
=1 if no older siblings	0.21	0.16	0.00	0.21	(-0.10	0.53)	0.22	0.16	0.00	0.22	(-0.10	0.53)	0.23	0.16	0.00	0.23	(-0.09	0.53)
=1 if two or more older siblings	0.40	0.19	0.00	0.40	(0.02	0.78)	0.40	0.19	0.00	0.40	(0.03	0.78)	0.39	0.19	0.00	0.39	(0.01	0.76)
<i>Respondent's relationship to child</i>																		
=1 if natural mother of child	0.18	0.40	0.00	0.17	(-0.59	0.98)	0.21	0.40	0.00	0.21	(-0.58	1.01)	0.20	0.40	0.00	0.20	(-0.57	0.98)
<i>Country where interview took place</i>																		
=1 if wales	-0.12	0.47	0.00	-0.13	(-1.04	0.82)	-0.11	0.47	0.00	-0.11	(-1.04	0.82)	-0.10	0.47	0.00	-0.11	(-1.02	0.83)
=1 if nireland	0.30	0.58	0.01	0.29	(-0.81	1.46)	0.30	0.58	0.01	0.31	(-0.84	1.44)	0.29	0.58	0.01	0.29	(-0.83	1.42)
=1 if scotland	0.52	0.50	0.01	0.52	(-0.46	1.49)	0.54	0.51	0.01	0.53	(-0.45	1.53)	0.54	0.50	0.01	0.54	(-0.43	1.54)
Time and Care																		
<i>Time mother spends with child</i>																		
=1 if at least just enough	-0.20	0.14	0.00	-0.20	(-0.47	0.07)	-0.22	0.14	0.00	-0.22	(-0.49	0.05)	-0.18	0.14	0.00	-0.18	(-0.45	0.09)
<i>Childcare</i>																		
=1 if formal childcare	0.20	0.26	0.00	0.20	(-0.32	0.73)	0.18	0.26	0.00	0.18	(-0.34	0.69)	0.19	0.26	0.00	0.19	(-0.33	0.70)
=1 if informal/ other childcare	0.01	0.22	0.00	0.01	(-0.42	0.44)	0.00	0.22	0.00	0.00	(-0.42	0.44)	-0.03	0.22	0.00	-0.03	(-0.46	0.40)
=1 if grandparent care	-0.03	0.15	0.00	-0.03	(-0.33	0.27)	-0.02	0.15	0.00	-0.02	(-0.32	0.27)	-0.06	0.15	0.00	-0.06	(-0.36	0.24)
<i>Maternal employment (t - 1)</i>																		
=1 if working part-time	0.25	0.15	0.00	0.25	(-0.04	0.54)	0.23	0.14	0.00	0.23	(-0.05	0.51)	0.26	0.14	0.00	0.26	(-0.02	0.55)
=1 if working full-time	0.12	0.30	0.00	0.12	(-0.47	0.73)	0.12	0.30	0.00	0.13	(-0.48	0.72)	0.13	0.30	0.00	0.14	(-0.47	0.73)
<i>How long mother breastfed child</i>																		
=1 if at least 6 months	-0.20	0.20	0.00	-0.21	(-0.59	0.19)	-0.19	0.20	0.00	-0.19	(-0.57	0.20)	-0.20	0.20	0.00	-0.21	(-0.60	0.19)
<i>If child is naughty...</i>																		

continued on next page

Table A.3.116 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	1.26	0.41	0.00	1.27	(0.47 2.05)	1.30	0.41	0.00	1.30	(0.50 2.09)	1.30	0.41	0.00	1.30	(0.50 2.09)
=1 if mother tells child off	0.76	0.13	0.00	0.76	(0.50 1.03)	0.76	0.13	0.00	0.76	(0.50 1.01)	0.77	0.13	0.00	0.77	(0.51 1.03)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	-0.18	0.19	0.00	-0.18	(-0.55 0.20)	-0.17	0.19	0.00	-0.17	(-0.54 0.19)	-0.18	0.19	0.00	-0.19	(-0.55 0.18)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	0.27	0.16	0.00	0.27	(-0.04 0.59)	0.28	0.16	0.00	0.28	(-0.04 0.59)	0.25	0.16	0.00	0.25	(-0.05 0.57)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.30	0.26	0.00	-0.30	(-0.80 0.22)	-0.30	0.26	0.00	-0.30	(-0.81 0.22)	-0.37	0.26	0.00	-0.37	(-0.89 0.15)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.03	0.15	0.00	0.03	(-0.25 0.32)	0.00	0.15	0.00	0.00	(-0.28 0.29)	0.00	0.15	0.00	0.00	(-0.28 0.29)
<i>Maternal mental health</i>															
=1 if high distress	0.16	0.28	0.00	0.16	(-0.39 0.71)	0.21	0.28	0.00	0.21	(-0.33 0.77)	0.20	0.28	0.00	0.20	(-0.36 0.75)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.07	0.15	0.00	0.07	(-0.22 0.36)	0.08	0.15	0.00	0.08	(-0.21 0.36)	0.07	0.15	0.00	0.07	(-0.21 0.36)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	0.04	0.18	0.00	0.04	(-0.31 0.40)	0.04	0.18	0.00	0.04	(-0.33 0.39)	-0.01	0.19	0.00	-0.01	(-0.37 0.35)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.07	0.19	0.00	0.07	(-0.31 0.46)	0.05	0.19	0.00	0.06	(-0.33 0.42)	0.05	0.19	0.00	0.05	(-0.33 0.43)
=1 if rented (housing association or private)/ other	0.19	0.17	0.00	0.19	(-0.15 0.53)	0.17	0.16	0.00	0.17	(-0.15 0.49)	0.18	0.17	0.00	0.18	(-0.16 0.51)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	-0.14	0.25	0.00	-0.14	(-0.63 0.35)	-0.13	0.25	0.00	-0.13	(-0.61 0.35)	-0.11	0.25	0.00	-0.11	(-0.59 0.38)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.22	0.22	0.00	0.22	(-0.21 0.66)	0.22	0.22	0.00	0.22	(-0.21 0.66)	0.23	0.22	0.00	0.23	(-0.20 0.65)
=1 if managerial/ professional occupation	-0.19	0.19	0.00	-0.19	(-0.57 0.19)	-0.19	0.20	0.00	-0.19	(-0.58 0.19)	-0.19	0.20	0.00	-0.19	(-0.58 0.19)
=1 if technical, semi-routine or routine occupation	0.02	0.15	0.00	0.02	(-0.27 0.31)	0.03	0.15	0.00	0.03	(-0.26 0.32)	0.02	0.15	0.00	0.02	(-0.27 0.32)
=1 if can't remember or father died	0.27	0.24	0.00	0.27	(-0.21 0.75)	0.28	0.24	0.00	0.28	(-0.20 0.74)	0.28	0.24	0.00	0.28	(-0.19 0.74)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	0.10	0.20	0.00	0.10	(-0.29 0.51)	0.05	0.21	0.00	0.05	(-0.35 0.46)	0.07	0.21	0.00	0.07	(-0.34 0.47)
Hyperactivity Risk Factors															
<i>Gestational age</i>															
=1 if gestational age < 37 weeks	0.30	0.28	0.00	0.30	(-0.25 0.85)	0.22	0.28	0.00	0.22	(-0.32 0.76)	0.25	0.28	0.00	0.25	(-0.29 0.80)
<i>Maternal mental health (age 1)</i>															
=1 if increased risk of depression/ anxiety	0.30	0.17	0.00	0.30	(-0.03 0.63)	0.30	0.17	0.00	0.31	(-0.03 0.63)	0.29	0.17	0.00	0.29	(-0.04 0.63)
<i>Alcohol consumption during pregnancy</i>															
=1 if 1-2 times per month	0.18	0.23	0.00	0.18	(-0.26 0.63)	0.13	0.22	0.00	0.12	(-0.30 0.57)	0.19	0.22	0.00	0.19	(-0.25 0.62)
=1 if at least once a week	-0.16	0.23	0.00	-0.16	(-0.61 0.28)	-0.20	0.22	0.00	-0.20	(-0.64 0.24)	-0.16	0.22	0.00	-0.16	(-0.60 0.28)
<i>Smoking during pregnancy</i>															
=1 if mother smoked during pregnancy	0.20	0.16	0.00	0.20	(-0.10 0.51)	0.19	0.15	0.00	0.19	(-0.12 0.49)	0.21	0.15	0.00	0.21	(-0.09 0.51)
<i>Smoking in the same room as child</i>															
=1 if anyone smokes in same room as child (age 1)	-0.04	0.18	0.00	-0.04	(-0.39 0.31)	0.02	0.18	0.00	0.02	(-0.33 0.37)	-0.03	0.18	0.00	-0.03	(-0.37 0.31)
=1 if anyone smokes in same room as child (age 3)	0.25	0.16	0.00	0.26	(-0.06 0.57)	0.26	0.16	0.00	0.26	(-0.05 0.57)	0.24	0.16	0.00	0.25	(-0.07 0.55)

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Table A.3.116 – continued from previous page

	CSR IND					CSR EMO					CSR COO					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
<i>Maternal attachment</i>																
Condon scale score (age 1)	0.03	0.07	0.00	0.03	(-0.10 0.16)	0.02	0.07	0.00	0.02	(-0.11 0.15)	0.02	0.07	0.00	0.02	(-0.10 0.15)	
<i>Child-parent relationship</i>																
Condon scale score (age 3)	-0.55	0.07	0.00	-0.55	(-0.70 -0.41)	-0.58	0.07	0.00	-0.58	(-0.72 -0.44)	-0.58	0.07	0.00	-0.58	(-0.72 -0.44)	
<i>Maltreatment of children</i>																
Straus's conflict tactics scale (age 3)	0.10	0.07	0.00	0.10	(-0.04 0.25)	0.10	0.07	0.00	0.10	(-0.04 0.24)	0.09	0.07	0.00	0.09	(-0.06 0.23)	
constant	1.44	0.87	0.01	1.44	(-0.26 3.15)	1.44	0.88	0.01	1.45	(-0.25 3.17)	1.42	0.87	0.01	1.42	(-0.29 3.14)	
σ_{τ}	1.91	0.05	0.00	1.91	(1.82 2.01)	1.90	0.05	0.00	1.90	(1.81 2.00)	1.91	0.05	0.00	1.91	(1.82 2.01)	

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Table A.3.117: Bayesian Estimates: CSR and SDQ HA (Eq. 2, TP, Age 7)

	CSR IND					CSR EMO					CSR COO					
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	
Standard Background Controls																
<i>Income</i>																
log of permanent family income (weekly, imp.)	-0.14	0.07	0.00	-0.14	(-0.28 0.01)	-0.13	0.07	0.00	-0.13	(-0.28 0.00)	-0.15	0.07	0.00	-0.15	(-0.30 -0.01)	
<i>Maternal education</i>																
=1 if NVQ level 1 or 2	0.29	0.07	0.00	0.29	(0.15 0.43)	0.30	0.07	0.00	0.30	(0.17 0.44)	0.29	0.07	0.00	0.29	(0.15 0.43)	
=1 if NVQ level 3	0.28	0.08	0.00	0.28	(0.13 0.44)	0.28	0.08	0.00	0.28	(0.13 0.43)	0.28	0.08	0.00	0.28	(0.13 0.44)	
=1 if overseas qual. only	0.39	0.24	0.00	0.39	(-0.08 0.85)	0.32	0.23	0.00	0.32	(-0.15 0.77)	0.34	0.23	0.00	0.34	(-0.13 0.79)	
=1 if none of these	0.36	0.14	0.00	0.36	(0.08 0.64)	0.35	0.14	0.00	0.35	(0.07 0.62)	0.37	0.14	0.00	0.37	(0.09 0.64)	
<i>Mother's age at birth</i>																
=1 if less than 25 years	0.25	0.11	0.00	0.25	(0.04 0.46)	0.25	0.11	0.00	0.25	(0.04 0.46)	0.24	0.11	0.00	0.24	(0.03 0.45)	
=1 if 25 to 29 years	0.01	0.08	0.00	0.01	(-0.16 0.18)	0.02	0.08	0.00	0.02	(-0.15 0.18)	0.00	0.08	0.00	0.00	(-0.16 0.18)	
=1 if 30 to 34 years	0.02	0.08	0.00	0.02	(-0.14 0.17)	0.02	0.08	0.00	0.02	(-0.13 0.17)	0.01	0.08	0.00	0.01	(-0.14 0.17)	
<i>Child demography</i>																
=1 if female	-0.54	0.05	0.00	-0.54	(-0.65 -0.44)	-0.54	0.05	0.00	-0.54	(-0.64 -0.43)	-0.54	0.05	0.00	-0.54	(-0.64 -0.43)	
age (years)	-0.14	0.10	0.00	-0.14	(-0.35 0.06)	-0.14	0.10	0.00	-0.14	(-0.33 0.06)	-0.11	0.10	0.00	-0.11	(-0.30 0.09)	
=1 if ethnicity is non-white	0.10	0.13	0.00	0.10	(-0.16 0.34)	0.08	0.13	0.00	0.08	(-0.16 0.33)	0.09	0.13	0.00	0.10	(-0.16 0.35)	
<i>Child's health endowment</i>																
=1 if birth weight < 2500g	0.44	0.15	0.00	0.45	(0.15 0.74)	0.48	0.15	0.00	0.48	(0.19 0.77)	0.47	0.15	0.00	0.47	(0.18 0.76)	
<i>Size of household</i>																
log of hh size incl. cm	-0.37	0.16	0.00	-0.37	(-0.68 -0.07)	-0.33	0.15	0.00	-0.33	(-0.62 -0.04)	-0.35	0.15	0.00	-0.35	(-0.64 -0.05)	
<i>Number of older siblings</i>																
=1 if no older siblings	-0.07	0.06	0.00	-0.07	(-0.19 0.06)	-0.07	0.06	0.00	-0.07	(-0.19 0.06)	-0.07	0.06	0.00	-0.06	(-0.19 0.06)	
=1 if two or more older siblings	0.06	0.09	0.00	0.06	(-0.11 0.24)	0.06	0.09	0.00	0.06	(-0.11 0.23)	0.07	0.09	0.00	0.07	(-0.10 0.24)	
<i>Respondent's relationship to child</i>																
=1 if natural mother of child	0.39	0.23	0.00	0.38	(-0.07 0.83)	0.43	0.22	0.00	0.43	(-0.02 0.85)	0.40	0.23	0.00	0.40	(-0.05 0.84)	
<i>Country where interview took place</i>																
=1 if wales	-0.05	0.26	0.00	-0.05	(-0.55 0.45)	-0.13	0.25	0.00	-0.14	(-0.62 0.35)	-0.08	0.25	0.00	-0.08	(-0.58 0.42)	
=1 if nireland	-0.18	0.44	0.00	-0.18	(-1.04 0.70)	-0.14	0.44	0.00	-0.14	(-0.97 0.73)	-0.19	0.44	0.00	-0.18	(-1.04 0.66)	
=1 if scotland	-0.21	0.30	0.00	-0.21	(-0.79 0.40)	-0.09	0.29	0.00	-0.09	(-0.67 0.48)	-0.20	0.30	0.00	-0.20	(-0.77 0.39)	
Time and Care																
<i>Time mother spends with child</i>																
=1 if at least just enough	-0.20	0.06	0.00	-0.20	(-0.31 -0.08)	-0.19	0.05	0.00	-0.19	(-0.29 -0.08)	-0.18	0.05	0.00	-0.18	(-0.29 -0.07)	
<i>Childcare</i>																
=1 if formal childcare	-0.14	0.12	0.00	-0.14	(-0.37 0.09)	-0.20	0.11	0.00	-0.20	(-0.42 0.01)	-0.14	0.12	0.00	-0.14	(-0.36 0.09)	
=1 if informal/ other childcare	0.07	0.11	0.00	0.07	(-0.13 0.28)	0.07	0.10	0.00	0.07	(-0.13 0.26)	0.05	0.10	0.00	0.05	(-0.14 0.25)	
=1 if grandparent care	-0.02	0.06	0.00	-0.02	(-0.14 0.11)	-0.01	0.06	0.00	-0.01	(-0.13 0.11)	0.00	0.06	0.00	0.00	(-0.12 0.12)	
<i>Maternal employment (t - 1)</i>																
=1 if working part-time	0.06	0.06	0.00	0.06	(-0.06 0.18)	0.06	0.06	0.00	0.06	(-0.05 0.17)	0.06	0.06	0.00	0.06	(-0.05 0.18)	
=1 if working full-time	0.17	0.13	0.00	0.17	(-0.07 0.42)	0.21	0.12	0.00	0.21	(-0.02 0.44)	0.24	0.12	0.00	0.24	(0.00 0.47)	
<i>How long mother breastfed child</i>																
=1 if at least 6 months	-0.30	0.07	0.00	-0.30	(-0.44 -0.16)	-0.29	0.07	0.00	-0.29	(-0.42 -0.15)	-0.29	0.07	0.00	-0.29	(-0.43 -0.16)	
<i>If child is naughty...</i>																

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Table A.3.117 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
=1 if mother smacks child	0.25	0.23	0.00	0.25	(-0.21 0.70)	0.35	0.22	0.00	0.35	(-0.08 0.78)	0.37	0.23	0.00	0.37	(-0.08 0.81)
=1 if mother tells child off	0.66	0.06	0.00	0.66	(0.55 0.78)	0.61	0.06	0.00	0.61	(0.51 0.72)	0.63	0.06	0.00	0.63	(0.52 0.74)
<i>Bedtime on term-time weekdays</i>															
=1 if regular bedtime	-0.59	0.10	0.00	-0.59	(-0.79 -0.40)	-0.49	0.09	0.00	-0.49	(-0.68 -0.30)	-0.56	0.10	0.00	-0.56	(-0.75 -0.37)
<i>Daily TV/ video consumption</i>															
=1 if more than 3 hours tv/ videos	0.08	0.08	0.00	0.08	(-0.08 0.23)	0.17	0.07	0.00	0.17	(0.03 0.32)	0.08	0.08	0.00	0.08	(-0.07 0.23)
<i>How often mother reads to the child</i>															
=1 if at least several times a week	-0.39	0.14	0.00	-0.39	(-0.67 -0.12)	-0.43	0.13	0.00	-0.43	(-0.69 -0.18)	-0.34	0.13	0.00	-0.34	(-0.60 -0.08)
Health and Health Related Behaviour															
<i>Maternal physical health</i>															
=1 if longstanding illness	0.03	0.06	0.00	0.03	(-0.09 0.15)	0.05	0.06	0.00	0.05	(-0.06 0.17)	0.04	0.06	0.00	0.04	(-0.08 0.15)
<i>Maternal mental health</i>															
=1 if high distress	0.69	0.18	0.00	0.68	(0.32 1.04)	0.63	0.17	0.00	0.63	(0.28 0.96)	0.71	0.18	0.00	0.70	(0.35 1.05)
<i>Does mother currently smoke</i>															
=1 if currently smokes	0.17	0.08	0.00	0.17	(0.01 0.34)	0.17	0.08	0.00	0.17	(0.01 0.33)	0.20	0.08	0.00	0.20	(0.04 0.36)
<i>How often mother drinks alcohol</i>															
=1 if at least 3 times a week	-0.02	0.07	0.00	-0.02	(-0.16 0.11)	-0.05	0.07	0.00	-0.05	(-0.18 0.08)	-0.06	0.07	0.00	-0.06	(-0.19 0.07)
Other															
<i>Housing tenure</i>															
=1 if council rented	0.29	0.12	0.00	0.29	(0.06 0.52)	0.24	0.12	0.00	0.24	(0.01 0.47)	0.26	0.12	0.00	0.26	(0.03 0.48)
=1 if rented (housing association or private)/ other	0.24	0.10	0.00	0.24	(0.05 0.42)	0.21	0.09	0.00	0.21	(0.03 0.39)	0.20	0.09	0.00	0.20	(0.01 0.38)
<i>Child's fruit consumption</i>															
=1 if cm has at least one portion of fruit per day	-0.03	0.15	0.00	-0.03	(-0.32 0.27)	-0.08	0.14	0.00	-0.08	(-0.36 0.20)	-0.02	0.15	0.00	-0.02	(-0.30 0.27)
<i>Maternal grandfathers' SES when respondent was aged 14</i>															
=1 if was not working	0.11	0.12	0.00	0.11	(-0.13 0.34)	0.11	0.12	0.00	0.11	(-0.13 0.34)	0.10	0.12	0.00	0.10	(-0.14 0.34)
=1 if managerial/ professional occupation	-0.19	0.07	0.00	-0.19	(-0.34 -0.04)	-0.19	0.07	0.00	-0.19	(-0.33 -0.04)	-0.19	0.07	0.00	-0.19	(-0.33 -0.04)
=1 if technical, semi-routine or routine occupation	0.08	0.07	0.00	0.08	(-0.05 0.21)	0.08	0.07	0.00	0.08	(-0.05 0.21)	0.08	0.07	0.00	0.08	(-0.05 0.21)
=1 if can't remember or father died	0.17	0.12	0.00	0.17	(-0.07 0.41)	0.18	0.12	0.00	0.18	(-0.06 0.42)	0.18	0.12	0.00	0.18	(-0.06 0.42)
<i>Problems with damp on the wall</i>															
=1 if at least some problems	0.21	0.12	0.00	0.21	(-0.04 0.44)	0.18	0.11	0.00	0.19	(-0.04 0.41)	0.15	0.12	0.00	0.15	(-0.08 0.38)
Hyperactivity Risk Factors															
<i>Gestational age</i>															
=1 if gestational age < 37 weeks	-0.02	0.13	0.00	-0.02	(-0.28 0.23)	-0.06	0.12	0.00	-0.06	(-0.31 0.18)	-0.05	0.13	0.00	-0.05	(-0.30 0.20)
<i>Maternal mental health (age 1)</i>															
=1 if increased risk of depression/ anxiety	0.12	0.09	0.00	0.12	(-0.05 0.30)	0.14	0.08	0.00	0.14	(-0.03 0.30)	0.10	0.09	0.00	0.10	(-0.07 0.27)
<i>Alcohol consumption during pregnancy</i>															
=1 if 1-2 times per month	-0.02	0.10	0.00	-0.02	(-0.20 0.17)	-0.02	0.09	0.00	-0.02	(-0.20 0.15)	-0.01	0.09	0.00	-0.01	(-0.19 0.17)
=1 if at least once a week	-0.11	0.09	0.00	-0.11	(-0.29 0.06)	-0.10	0.08	0.00	-0.10	(-0.27 0.06)	-0.09	0.09	0.00	-0.09	(-0.26 0.08)
<i>Smoking during pregnancy</i>															
=1 if mother smoked during pregnancy	0.02	0.09	0.00	0.02	(-0.16 0.19)	-0.04	0.08	0.00	-0.04	(-0.20 0.12)	-0.03	0.09	0.00	-0.03	(-0.20 0.14)
<i>Smoking in the same room as child</i>															
=1 if anyone smokes in same room as child (age 1)	0.22	0.10	0.00	0.22	(0.02 0.43)	0.25	0.10	0.00	0.25	(0.07 0.44)	0.24	0.10	0.00	0.24	(0.05 0.44)
=1 if anyone smokes in same room as child (age 3)	0.09	0.09	0.00	0.09	(-0.09 0.27)	0.04	0.09	0.00	0.04	(-0.13 0.21)	0.08	0.09	0.00	0.08	(-0.09 0.25)

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Table A.3.117 – continued from previous page

	CSR IND					CSR EMO					CSR COO				
	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI	mean	sd	se	med	95% CrI
<i>Maternal attachment</i>															
Condon scale score (age 1)	-0.10	0.03	0.00	-0.10	(-0.16 -0.04)	-0.10	0.03	0.00	-0.10	(-0.15 -0.04)	-0.08	0.03	0.00	-0.08	(-0.14 -0.02)
<i>Child-parent relationship</i>															
Condon scale score (age 3)	-0.56	0.03	0.00	-0.57	(-0.63 -0.50)	-0.65	0.03	0.00	-0.65	(-0.71 -0.59)	-0.60	0.03	0.00	-0.60	(-0.66 -0.54)
<i>Maltreatment of children</i>															
Straus's conflict tactics scale (age 3)	0.16	0.03	0.00	0.16	(0.09 0.22)	0.14	0.03	0.00	0.14	(0.08 0.20)	0.17	0.03	0.00	0.17	(0.10 0.23)
constant	5.43	0.66	0.01	5.44	(4.13 6.71)	5.29	0.65	0.01	5.29	(4.03 6.55)	5.24	0.65	0.01	5.25	(3.96 6.51)
σ_{τ}	1.74	0.02	0.00	1.74	(1.70 1.79)	1.72	0.02	0.00	1.72	(1.68 1.76)	1.74	0.02	0.00	1.74	(1.70 1.78)

Note: Own calculations based on MCS. MCMC standard errors are obtained from prais regressions. # chronic: number of longstanding health conditions; # hospital: number of hospital admissions; SDQ HA: SDQ hyperactivity/ inattention subdomain score; BAS PC: British Ability Scale Pattern Construction Test; BAS WR: British Ability Scale Word Reading Test; NFER Math: NFER Progress in Math Test; SDQ ES: SDQ emotional symptoms subdomain score; SDQ CP: SDQ conduct problems subdomain score; SDQ PR: SDQ peer relationship problems subdomain score; SDQ PB: SDQ prosocial behaviour subdomain score; CSR IND: CSR independence/ self-regulation; CSR EMO: CSR emotional dysregulation; CSR COO: CSR cooperation.

Appendix 4

Table A.4.1: Summary statistics

Variable	2003	2004	2005	2006	2007	2008	2009	2010	2011
Health									
self assessed health	2.55	2.53	2.56	2.58	2.58	2.58	2.59	2.60	2.62
	(0.89)	(0.89)	(0.89)	(0.89)	(0.90)	(0.91)	(0.89)	(0.90)	(0.91)
self assessed health (t-1)	2.53	2.52	2.51	2.55	2.57	2.55	2.56	2.57	2.57
	(0.87)	(0.89)	(0.89)	(0.88)	(0.89)	(0.88)	(0.90)	(0.89)	(0.90)
Socioeconomic background									
age	43.37	44.05	44.15	44.45	44.73	45.01	45.19	45.62	45.87
	(8.88)	(8.75)	(8.75)	(8.85)	(8.97)	(8.99)	(8.92)	(9.01)	(9.04)
education in years	12.06	12.37	12.41	12.47	12.57	12.63	12.74	12.81	12.88
	(2.49)	(2.68)	(2.67)	(2.68)	(2.71)	(2.71)	(2.72)	(2.72)	(2.71)
education in years squared	151.58	160.29	161.27	162.67	165.33	166.83	169.65	171.52	173.14
	(66.49)	(72.70)	(72.58)	(72.88)	(74.00)	(74.33)	(75.08)	(75.24)	(75.37)
log permanent income	10.43	10.51	10.51	10.51	10.51	10.51	10.51	10.52	10.52
	(0.47)	(0.52)	(0.51)	(0.51)	(0.51)	(0.51)	(0.51)	(0.51)	(0.50)
=1 if housing is in need of renovation	0.29	0.28	0.26	0.28	0.27	0.28	0.29	0.31	0.32
	(0.45)	(0.45)	(0.44)	(0.45)	(0.44)	(0.45)	(0.45)	(0.46)	(0.47)
=1 if nationality is not german	0.09	0.08	0.08	0.08	0.07	0.06	0.06	0.05	0.05
	(0.28)	(0.27)	(0.27)	(0.26)	(0.26)	(0.24)	(0.23)	(0.23)	(0.22)
=1 if new Laender	0.24	0.22	0.23	0.22	0.22	0.23	0.24	0.23	0.24
	(0.43)	(0.41)	(0.42)	(0.42)	(0.42)	(0.42)	(0.42)	(0.42)	(0.42)
=1 if single	0.17	0.16	0.17	0.18	0.19	0.20	0.20	0.20	0.20
	(0.38)	(0.37)	(0.38)	(0.39)	(0.39)	(0.40)	(0.40)	(0.40)	(0.40)
Family demands									
number of children in hh, age < 16 years (t-1)	0.79	0.75	0.72	0.70	0.68	0.66	0.64	0.61	0.61
	(1.00)	(0.99)	(0.97)	(0.96)	(0.95)	(0.93)	(0.92)	(0.91)	(0.90)
Labour force participation									
=1 if full-time employed (t-1)	0.38	0.38	0.38	0.38	0.37	0.38	0.40	0.42	0.41
	(0.48)	(0.49)	(0.49)	(0.48)	(0.48)	(0.49)	(0.49)	(0.49)	(0.49)
=1 if part-time employed (t-1)	0.27	0.29	0.30	0.29	0.29	0.32	0.32	0.32	0.32
	(0.45)	(0.45)	(0.46)	(0.46)	(0.45)	(0.47)	(0.47)	(0.47)	(0.47)
=1 if unemployed (t-1)	0.32	0.31	0.29	0.30	0.30	0.26	0.25	0.23	0.24
	(0.46)	(0.46)	(0.45)	(0.46)	(0.46)	(0.44)	(0.43)	(0.42)	(0.43)
Job characteristics									
job prestige Treiman (t-1)	29.64	31.07	31.87	31.77	31.53	33.48	34.14	35.19	34.87
	(22.66)	(23.25)	(22.90)	(23.13)	(23.22)	(22.55)	(22.56)	(22.19)	(22.43)
working environment: autonomy (t-1)	1.81	1.92	1.96	1.96	1.96	2.07	2.12	2.19	2.18
	(1.48)	(1.52)	(1.51)	(1.52)	(1.53)	(1.49)	(1.49)	(1.48)	(1.48)
=1 if public employee (t-1)	0.22	0.25	0.25	0.25	0.25	0.25	0.25	0.26	0.25
	(0.42)	(0.43)	(0.43)	(0.43)	(0.43)	(0.43)	(0.44)	(0.44)	(0.43)
Firm characteristics									
=1 if employed in primary sector (t-1)	0.01	0.01	0.01	0.00	0.01	0.01	0.01	0.01	0.01
	(0.08)	(0.08)	(0.07)	(0.07)	(0.07)	(0.08)	(0.08)	(0.08)	(0.08)
=1 if employed in secondary sector (t-1)	0.12	0.12	0.12	0.12	0.12	0.11	0.11	0.12	0.11
	(0.33)	(0.32)	(0.32)	(0.32)	(0.32)	(0.32)	(0.32)	(0.32)	(0.31)
=1 if employed in tertiary sector (t-1)	0.54	0.56	0.59	0.58	0.58	0.62	0.63	0.65	0.64
	(0.50)	(0.50)	(0.49)	(0.49)	(0.49)	(0.48)	(0.48)	(0.48)	(0.48)
=1 if no sector	0.36	0.32	0.32	0.32	0.30	0.28	0.26	0.26	0.24
	(0.48)	(0.47)	(0.47)	(0.47)	(0.46)	(0.45)	(0.44)	(0.44)	(0.43)
=1 if firm size < 20 (t-1)	0.22	0.22	0.23	0.22	0.21	0.23	0.22	0.23	0.23
	(0.42)	(0.42)	(0.42)	(0.41)	(0.41)	(0.42)	(0.42)	(0.42)	(0.42)
=1 if firm size >=20 and <200 (t-1)	0.20	0.20	0.21	0.21	0.20	0.21	0.22	0.22	0.22
	(0.40)	(0.40)	(0.41)	(0.40)	(0.40)	(0.41)	(0.41)	(0.41)	(0.41)
=1 if firm size >=200 and <2000 (t-1)	0.14	0.14	0.14	0.14	0.14	0.14	0.15	0.16	0.15
	(0.35)	(0.34)	(0.35)	(0.34)	(0.34)	(0.35)	(0.36)	(0.37)	(0.36)
=1 if firm size >=2000 (t-1)	0.13	0.13	0.14	0.14	0.15	0.16	0.16	0.16	0.16
	(0.33)	(0.34)	(0.35)	(0.35)	(0.35)	(0.36)	(0.36)	(0.37)	(0.36)
Coping mechanisms									
=1 if employment status changed from t-1 to t (t-1)	0.09	0.09	0.08	0.08	0.09	0.07	0.08	0.07	0.09
	(0.29)	(0.29)	(0.27)	(0.28)	(0.28)	(0.25)	(0.26)	(0.26)	(0.28)
=1 if home help employed (t-1)	0.05	0.08	0.07	0.08	0.08	0.08	0.08	0.08	0.07
	(0.22)	(0.28)	(0.25)	(0.27)	(0.27)	(0.27)	(0.27)	(0.27)	(0.25)
=1 if youngest child is in external care (t-1)	0.37	0.36	0.36	0.35	0.33	0.34	0.33	0.32	0.32
	(0.48)	(0.48)	(0.48)	(0.48)	(0.47)	(0.47)	(0.47)	(0.47)	(0.47)
=1 if youngest child is external full-time care (t-1)	0.07	0.07	0.06	0.07	0.06	0.07	0.08	0.09	0.09
	(0.25)	(0.25)	(0.25)	(0.25)	(0.24)	(0.26)	(0.28)	(0.29)	(0.29)
N	4889	5103	4879	4577	4311	4564	4165	3859	3588

Source: Own calculations using GSOEP 2001-2011.