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Department
for Education

The wellbeing of secondary school pupils with special educational needs

Research report

July 2017

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The linked Understanding Society: National Pupil Database dataset is available from the [UK Data Service](#) catalogue through the Secure Data Service (Secure Lab). The study number for this data is SN7642. We would like to thank staff at the Secure Lab for facilitating access to the linked data. See [here](#) for the full reference for the dataset.

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Abbreviations

DfE	Department for Education
MNW	Measuring National Wellbeing programme
NPD	National Pupil Database
SEMH	Social, Emotional and Mental Health needs
SEN	Special Educational Needs
SDQ	Strengths and Difficulties Questionnaire
USoc	Understanding Society survey

Executive Summary

Background

The promotion of good wellbeing is seen as a way to help children and young people to achieve their potential, and to prepare them for happy and healthy adult lives.

Understanding the wellbeing of children and young people has become increasingly salient in both academic research and public policy debates in the last decade. Despite this, there is a lack of research that has specifically looked at the wellbeing of children with Special Educational Needs (SEN). Children with SEN may experience their school and family life in a way that is distinct from those without SEN, for instance they are at greater risk of being bullied (Chatzitheochari et al, 2014), and being excluded or having absences from school (DfE, 2016a) – as well as have learning difficulties or disabilities that make it harder for them to learn than most children of the same age. This report attempts to fill this research gap by exploring the wellbeing of secondary school-age children with SEN.

Data sources

This report uses data from the Understanding Society survey (USoc) matched to the National Pupil Database (NPD). This linked dataset provides a unique opportunity to explore the wealth of information provided by parents and children in the USoc survey alongside the characteristics of children on the NPD. Data on child wellbeing comes from USoc and is identified in two ways in this report:

1. **Subjective wellbeing**, which asks children to assess their satisfaction with various aspects of their lives (*their school, school work, appearance, family, friends, and life as a whole*). This is done by asking children to score their feelings on each aspect on a scale from 1 'happy' to 7 'unhappy':



2. **Psychological wellbeing**, which focuses more on children's mental health, is collected via the Strengths and Difficulties Questionnaire (SDQ); a short behavioural screening questionnaire completed by children (Goodman, 1997). The SDQ has five domains, each on a scale of 1 to 10. For each domain, children are asked whether a list of characteristics about themselves is 'certainly true', 'somewhat true', or 'not true':
 - i. *emotional symptoms*; this asks children whether they feel worried, unhappy, nervous, and easily scared

- ii. *conduct (or behavioural) problems*; this asks children whether they get angry, lie, cheat, steal, and do not do as they are told
- iii. *hyperactivity or inattention*; this asks children whether they feel restless, fidgety, distracted, do not think before acting, and do not finish their work
- iv. *peer relationship problems*; this asks children about difficulties they have getting on with other children such as whether they tend to play alone, have any good friends, think other people like them, get picked on, and prefer spending time with adults rather than children
- v. *prosocial behaviour*; this asks children about positive behaviours such as whether they are nice, sharing, kind, and helpful to other people

Despite being a wide-ranging survey, USoc does not ask whether children have SEN. However, this information is included on the NPD. Linking the USoc and NPD data together allows us to know both whether a child has SEN and the wellbeing status of children. In this research, we only identify whether children have SEN or not. We are not able to report findings by the types of need children have or the type of support they receive.

The findings from this research relate to 1600 secondary school children aged 10-15 who go to school in England, of whom 299 had SEN. A [comparison](#) of the linked dataset to the full NPD dataset found that the sample of children we use in this research is a good representation of the population of secondary-school children with SEN in England. The data used for this research is from 2012/13.

Key Findings

The report focuses on the wellbeing of children with SEN. The main findings are summarised below, first for subjective wellbeing (i.e. unhappiness) and then for psychological wellbeing (i.e. risk of mental health difficulties).

Similar to other research (such as DfE, 2016b), this report finds that certain characteristics of secondary-school children are associated with having SEN; such as being a boy, being eligible for free school meals, having a parent with a long-standing illness or disability or low wellbeing, and being bullied (physically or non-physically). These factors may also be associated with low wellbeing. For example, we know that being from a poorer family, having a mother with low wellbeing and being bullied are all factors that can lead to low wellbeing. We use regression analysis to explore whether having SEN remains an important factor associated with wellbeing, when other characteristics of children and their family are taken into account. See [Figure 9](#) for a full list of factors taken into account in this analysis.

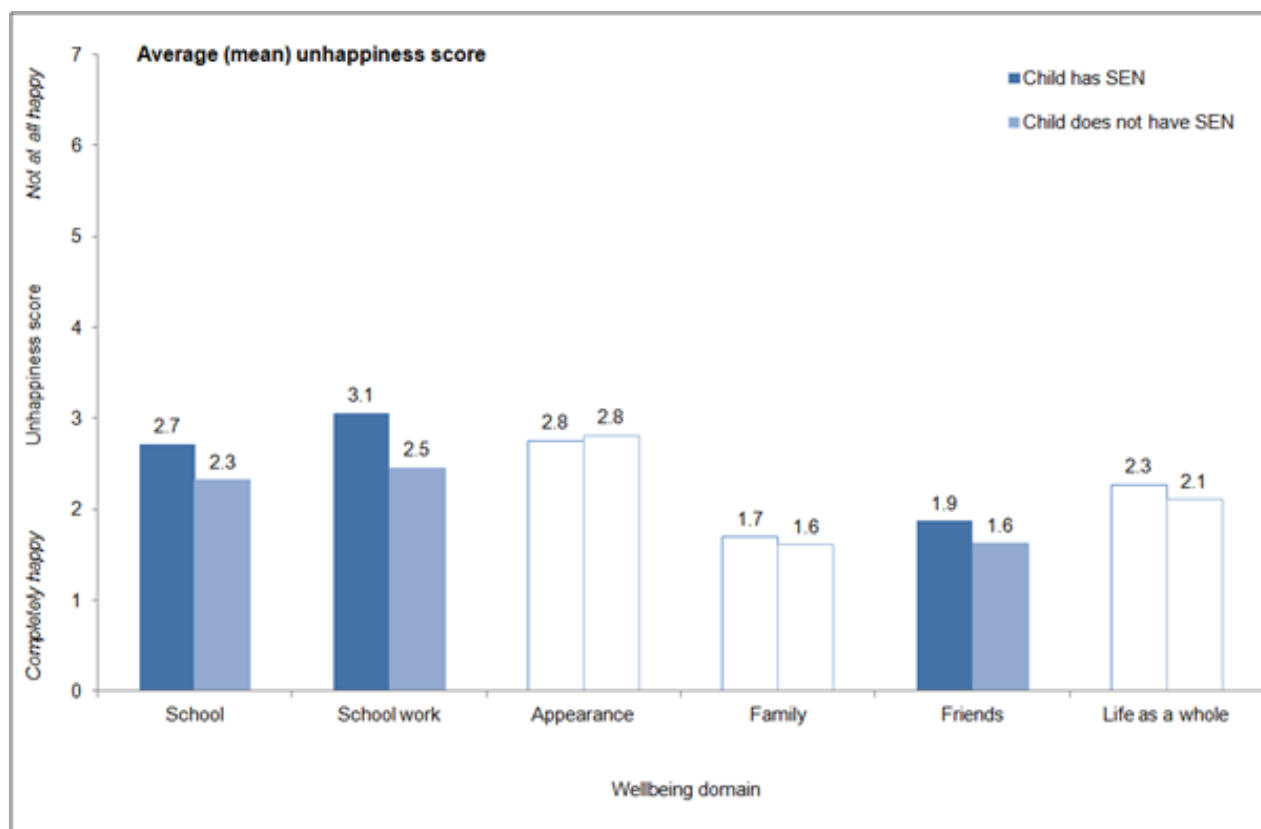
SEN and subjective wellbeing

Subjective wellbeing measures children's satisfaction with different aspects of their lives (school, school work, appearance, family, friends and life as a whole) and is rated on a scale of 1 'happy' to 7 'unhappy'.

Average levels of 'unhappiness' (Figure 1)

- Children with SEN have similar levels of unhappiness to children without SEN regarding their appearance, their family and life as a whole, but there were differences when looking at other areas of their lives
- Children with SEN have higher levels of unhappiness than children without SEN on a number of issues. On the 7-point unhappiness scale from happy (1) to unhappy (7) children with SEN were on average:
 - 0.6 points unhappier with their school work (mean score 3.1 compared to 2.5)
 - 0.4 points unhappier with their school (mean score 2.7 compared to 2.3)
 - 0.3 points unhappier with their friends (mean score 1.9 compared to 1.6)

Figure 1. Subjective wellbeing of children aged 10-15 by SEN status: Average unhappiness score



Source: Understanding Society – National Pupil Database (linked dataset)

The left (dark) bars in each pair of bars represent children with SEN

The right (light) bars in each pair of bars represent children without SEN

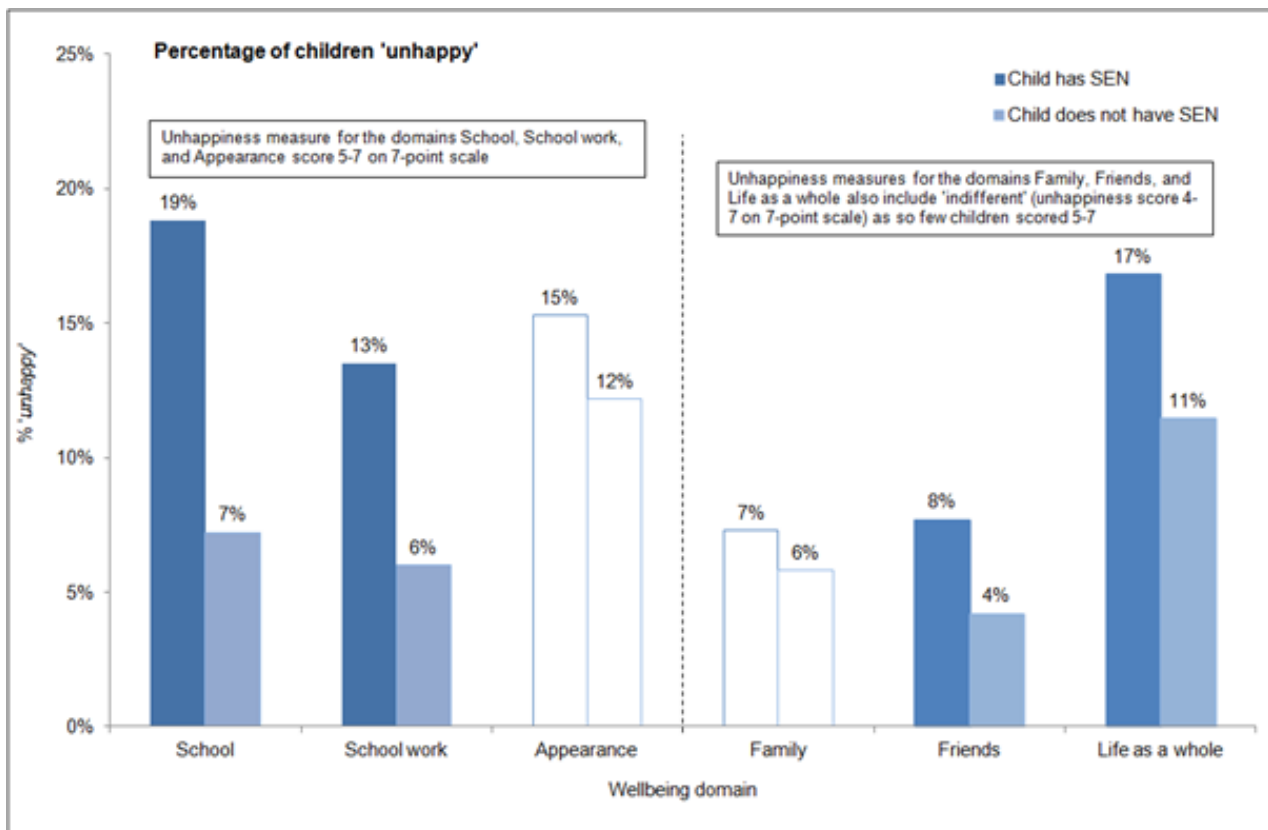
White bars indicate no statistically significant difference between children with and without SEN

- However, it is only for school work that having SEN is independently associated with an increased unhappiness score (0.3 points higher than for children without SEN, even after controlling for other characteristics of children and their family)

Children who are most 'unhappy' (Figure 2)

- Some children, albeit a minority, do show signs of low subjective wellbeing. These children score above an 'unhappiness threshold' on the 7-point unhappiness scale (the threshold is set at over 5 for school, school work, and appearance, and over 4 for family, friends, and life as a whole – a lower threshold is used here, as few children feel unhappy with these aspects of their lives).
- Again, we see differences between children with SEN and children without SEN. Children with SEN are more likely than children without SEN to be unhappy (or, for friends and life as a whole, indifferent) about:
 - the school they go to (19 per cent compared to 7 per cent)
 - their school work (13 per cent of children with SEN compared to 6 per cent of children without SEN),
 - their friends (8 per cent compared to 4 per cent), and
 - their life as a whole (17 per cent compared to 11 per cent)

Figure 2. Subjective wellbeing of children aged 10-15 by SEN status: Percentage 'unhappy'



Source: Understanding Society – National Pupil Database (linked dataset)

The left (dark) bars in each pair of bars represent children with SEN

The right (light) bars in each pair of bars represent children without SEN

White bars indicate no statistically significant difference between children with and without SEN

- The biggest differences between children with and without SEN being 'unhappy' are for their views on their school and their school work
- However, when taking other characteristics of the child or family into account, having SEN is only independently associated with an increased odds of being 'unhappy' with school
- Factors other than having SEN are also independently associated with low subjective wellbeing. These can vary according to the domain of subjective wellbeing, but being a girl, being bullied (whether physical or non-physical) and having higher levels of psychological difficulties are prominent factors across a number of domains.

SEN and psychological wellbeing

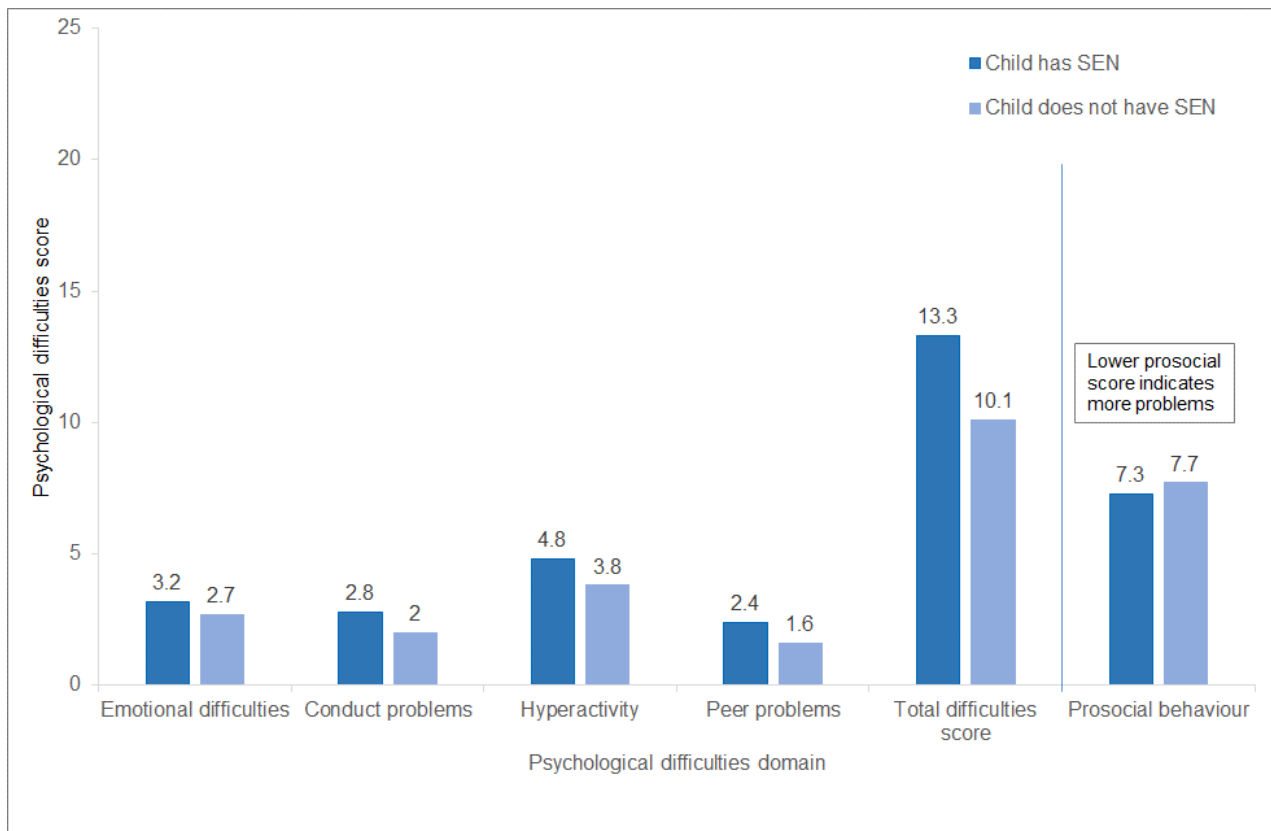
Psychological wellbeing focuses on risk of mental difficulties and is measured across five domains (emotional difficulties, conduct problems, hyperactivity/inattention, peer relationship problems and prosocial behaviour), each on a scale of 1 to 10.

Average levels of 'psychological difficulties' (Figure 3)

- The SDQ scoring tool is designed so that 80 per cent of children are in the lowest risk category (called 'close to average') – so most children do not show an increased risk of psychological difficulties. Only a minority of children score 'high' or 'very high' on the SDQ and these children are at most risk of mental health problems.
- Our research shows that children with SEN have higher average psychological difficulties across all domains: Emotional difficulties, Conduct problems, Hyperactivity/Inattention, Peer relationship problems, and the Total difficulties score (which aggregates the previous four domains), and the Prosocial behaviour measure
- It is important to note that despite being higher than for children without SEN, the average psychological difficulties score for children with SEN is in the 'close to average' range for all domains except Peer relationship problems, where a mean score of 2.4 is between 'close to average' and 'slightly raised'
- On the 10-point psychological difficulties score (where 10 indicates higher risk of problems) children with SEN had higher average scores than children without SEN:
 - 0.5 points higher for Emotional difficulties (3.2 compared to 2.7) (note that 'high'/'very high' scores are 6.0 and above)
 - 0.8 points higher for Conduct problems (2.8 compared to 2.0) (note that 'high'/'very high' scores are 5.0 and above)
 - 1.1 points higher for Hyperactivity/Inattention (4.8 compared to 3.8) (note that 'high'/'very high' scores are 7.0 and above)
 - 0.9 points higher for Peer relationship problems (2.4 compared to 1.6) (note that 'high'/'very high' scores are 4.0 and above)

- The average Total difficulties score (out of 40) was 3.2 points higher for children with SEN than for children without SEN (13.3 compared to 10.1) (note that ‘high’/‘very high’ scores are 18.0 and above)
- The average Prosocial behaviour score was 0.4 points lower for children with SEN than for children without SEN (7.3 compared to 7.7) (for this measure a lower score indicates more problems and ‘low’/‘very low’ scores are 5.0 and below)

Figure 3. Psychological wellbeing of children aged 10-15 by SEN status: Average psychological difficulties score



Source: Understanding Society – National Pupil Database (linked dataset), 2011-12

Note: Psychological wellbeing scored from 0-10 for each domain (and 0-40 for total difficulties score)

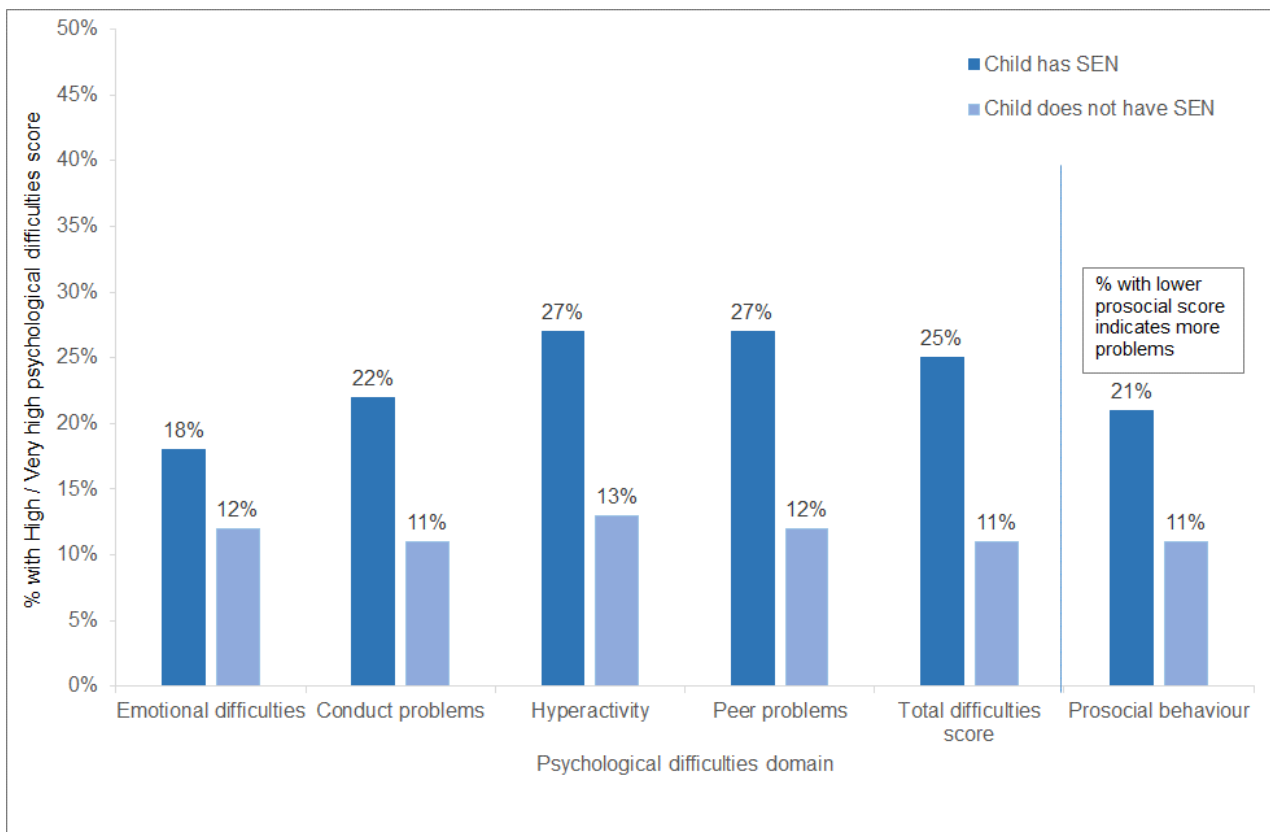
- When taking other characteristics of the children and their family into account the ‘impact’ of having SEN was reduced, but having SEN was still associated with a number of the psychological difficulties domains. Children with SEN had a higher psychological difficulties score for the following domains:
 - 0.1 points higher for Conduct problems
 - 0.2 points higher for Hyperactivity/Inattention
 - 0.1 points higher for Peer relationship problems
 - 0.3 points higher for the Total difficulties score
- The difference between the scores of children with and without SEN was lower than when these factors were not accounted for, suggesting having SEN has a statistically significant, but perhaps relatively small, independent association with psychological

difficulties (and that the difference between children with and without SEN is driven by other characteristics of children with SEN).

Children most at risk of mental health problems (Figure 4)

- Higher scores indicate an increased risk of mental health problems, and here we look at children that have ‘high’ or ‘very high’ psychological difficulties. Again, we see that children with SEN are more likely than children without SEN to be above these thresholds for all domains of psychological wellbeing.
- Between 18 and 27 per cent of children with SEN have ‘high’ or ‘very high’ psychological difficulties scores (depending on the domain) compared to between 11 and 13 per cent of children without SEN
- Children with SEN are most likely to have ‘high’ or ‘very high’ psychological difficulties scores for:
 - Hyperactivity/Inattention (27 per cent), and
 - Peer relationship problems (27 per cent)

Figure 4. Psychological wellbeing of children aged 10-15 by SEN status: Percentage with high/very high scores



Source: Understanding Society – National Pupil Database (linked dataset), 2011-12

Note: Psychological wellbeing scored from 0-10 for each domain (and 0-40 for total difficulties score)

- Having SEN is independently associated with an increased likelihood of having ‘high’ or ‘very high’ scores for a number of domains: Peer relationship problems, Hyperactivity/Inattention, Total difficulties score, and Prosocial behaviour

- Again, the strongest independent association was with Peer relationship problems where children with SEN were more likely to have ‘high’ or ‘very high’ scores
- Factors other than having SEN were also independently associated with psychological difficulties. These varied according to the domain of psychological wellbeing, but being bullied (whether physical or non-physical) and feeling unhappy with certain aspects of their lives are prominent factors across a number of domains.

Conclusions

This report has provided important new evidence on the links between secondary school children having SEN and their subjective and psychological wellbeing, using data from a sample of 1600 children - 299 of whom have SEN - that is broadly representative of the population. The findings show that children with SEN tend to have lower levels of subjective wellbeing than children without SEN when talking about their school and their school work – and also with their friends (an important element of school life). Higher proportions of children with SEN are also deemed to be ‘unhappy’ with these aspects of their lives – for example, almost one in five (19 per cent) children with SEN report being unhappy with their school, compared to just 7 per cent of children without SEN. Yet children with SEN show relatively little difference to those without SEN when talking about their family and their appearance.

Clearly, there is evidence that how children think about their wellbeing in relation to school is an issue for a number of children with SEN. Given that having SEN means a child requires additional support at school, it is perhaps unsurprising that the biggest difference between children with SEN and without SEN is for their views on their school work.

The link between SEN and wellbeing appears to be even stronger for psychological wellbeing. Children with SEN score higher than children without SEN across a range of psychological wellbeing domains. Between 18 and 27 per cent of children with SEN are in the ‘high’ or ‘very high’ psychological difficulties range, significantly higher than children without SEN (between 11 and 13 per cent). However, it is important to note that aspects of psychological wellbeing may be a reason why children are diagnosed with SEN in the first place (more on this below).

The analysis has suggested a potentially complex interaction between SEN and a number of other factors that can impact on children’s wellbeing, including their gender, family background, peer relationships (particularly bullying) and engagement with education. We know from this and other research that children with SEN are disproportionately more likely to be boys, from more disadvantaged families, and to be bullied. Being bullied - both physical and non-physical bullying – is a consistent predictor of low wellbeing and we also know that children’s interaction with school, family members, and other children can have a strong influence on their wellbeing.

The social background of children might impact their wellbeing. Once this has been controlled for, children with SEN may experience their school and family life in a way that is distinct from those without SEN, for instance they may be at greater risk of being bullied, or being excluded from school - factors which themselves can reduce wellbeing and lead to disadvantage in later life. More generally, the distinct experiences of children with SEN inside and outside the educational system raise pressing issues for policy and research.

As with any research study, there are limitations that should be recognised. Although much of what this study has achieved has only been possible by utilising a unique dataset that combines a large-scale social survey (Understanding Society) with administrative data from schools (National Pupil Database), the number of children with SEN in the dataset is relatively small. Ideally, we would replicate the analysis on a larger dataset, or even other similarly-sized datasets.

It is important to note that this research groups together children with any type of SEN (to compare them, more generally, to children without SEN) and hence the findings may be masking distinct wellbeing experiences of children with different types of SEN.

Unfortunately, the linked USoc-NPD dataset does not allow us to identify the specific SEN that children have, and in any case the small sample size would not allow for such intricate analysis. Further research would be welcomed to unpick the relationship between different types of SEN and the various aspects of wellbeing. This may require a question about children's SEN being added to other existing large-scale surveys – although it is acknowledged that young people or parents may not want to disclose this – or matching the NPD to other relevant survey data.

Furthermore, it is important to acknowledge the potential overlap between the way special educational needs are identified and how wellbeing, especially psychological wellbeing, is measured. Special educational needs cover a wide range of conditions - and in January 2016, 18.5% of children with SEN in secondary schools had 'social, emotional and mental health' as their primary type of need (DfE, 2016b). Many more will have these needs in addition to other difficulties. Hence, there is the possibility that having a psychological difficulty can lead to both a SEN diagnosis and a measure of low psychological wellbeing on the 'emotional difficulties' domain. However, the measures are far from a perfect overlap and there is still value in understanding how many children with SEN have such psychological difficulties.

Finally, this study has looked only at children's wellbeing at one point in time. A child's wellbeing is likely to change over time and, although there is very little available data that records children's wellbeing over a sustained period, surveys such as USoc track the same children at annual intervals. Hence, further research could utilise the longitudinal nature of the survey to explore associations between SEN and wellbeing over time.

Introduction

The Department for Education's (DfE) vision for children with Special Educational Needs and Disabilities (SEND) is the same as for all children and young people – that they achieve well in their early years, at school and in college, and lead happy and fulfilled lives. As outlined in the departmental strategy, DfE will support schools to promote good wellbeing and provide a supportive environment for those experiencing problems. (DfE, 2016c, 2016d)

Although there has been a multitude of research into the wellbeing of children, there is a lack of research that looks specifically at the experiences of children with Special Educational Needs (SEN). This report attempts to fill that gap by exploring the wellbeing of secondary school-age children with SEN; focusing on subjective wellbeing (i.e. unhappiness) and psychological wellbeing (mental health difficulties).

Review of previous research

Children's wellbeing has become increasingly salient in both academic research and public policy debates in the last decade. This reflects the huge upsurge of work in the area of adults' subjective wellbeing - sometimes called the 'new economics of happiness' (Layard, 2005) – and its successful embedding within mainstream government policy in the UK and across Europe. This has led logically to an attention on children, since promoting children's wellbeing is not only vital in order for children to have a good childhood, but also as a firm basis for their future wellbeing as adults (Rees et al, 2012).

The literature tends to focus on three themes in relation to wellbeing – of young and old alike. Firstly, attention is given to the potency of levels of wellbeing as a means of justifying the extensive focus upon it. Wellbeing during childhood is a predictor of later quality of life, economic productivity, the likelihood of experiencing poverty and welfare dependency, and even affects a person's chances of passing on their outcomes in later life to the next generation (Richardson, 2012).

The recognition and acceptance of personal wellbeing as a key variable leads to the second theme, the search for explanations of differences in wellbeing, or the 'drivers of wellbeing'. There is a growing literature on comparative (i.e. cross-national) child wellbeing, and the UK is in the lower reaches of the European league table (Bradshaw, 2007). Focusing on the UK, a NatCen report using the Millennium Cohort Study (Chanfreau et al, 2012) found that among seven-year olds, 36% said they felt happy 'all of the time' and 62% felt happy 'some of the time'. At the same time, 62% also reported feeling worried some of the time. Of all the life domains about which respondents were questioned, social relationships stood out as the one with the strongest association with self-reported happiness. Within this, it was those children who enjoyed good relationships with siblings, had fun with their family at weekends and had lots of friends, who were most likely to say they were happy all the time. This is an important point as we know that

children with SEN are more likely to be bullied and to be excluded from friendship groups (Chatzitheochari et al, 2014).

The characteristics of the child's home neighbourhood also remained a strong predictor after controlling for other factors. A notable finding, and one replicated in the most recent Children's Society report (2016), is that children's direct experiences affect their wellbeing far more than those which are further removed from them - for example, how safe they feel in their local park rather than broader measures of area deprivation (like the Index of Multiple Deprivation). Children's wellbeing is likely to be affected by social relationships at both school and home. We also know there are gender effects. Girls (1 in 3) will worry about their appearance more than boys (1 in 5), and 1 in 7 girls claim to be unhappy with their lives overall, compared to 1 in 9 boys (Children's Society, 2016).

Finally, there is a lot of debate in the wellbeing literature about data collection and measurement. Some of this concerns methodological and ethical problems relating to wellbeing research on children, namely the presence of social desirability among respondents and sensitivities around 'anxiety items' and their potential impact on respondents. Childhood wellbeing is generally regarded as multi-dimensional and a wide variety of domains and measures are deployed to study it. There has also been much debate about the relative merits of single items and composite indexes as methods of public dissemination and policy messages (see Becchetti et al, 2016; OECD 2013). Both approaches have their uses and we seek to use established composites where these have already been tried and tested - for example, the Strengths and Difficulties Questionnaire (Goodman, 1997) is used to measure psychological wellbeing. Many surveys use both single-item synoptic measures of happiness or life satisfaction, but also collect perceptions of a set of life domains that either sum to the whole, or are felt to be strongly associated with the single item measure. More information on the methodology we use in this report is given in the next chapter.

Methodology

One of the reasons for the lack of research on the wellbeing of children with Special Educational Needs (SEN) is that there is very little available data that records both 'wellbeing' and SEN status from the same children. Surveys that collect information from children about their wellbeing do not tend to ask whether the child has SEN (and if they did, the information is likely to be provided by a parent or carer, rather than an assessment from a SEN specialist). Likewise, administrative data from schools about children with SEN does not contain information about child wellbeing. The unique data source used in this report makes such research possible. This chapter provides a summary of the data and research methodology used.

The data

This report explores the wellbeing of secondary school-age children with SEN. The data used is the linked Understanding Society survey – National Pupil Database. This linked dataset provides the opportunity to explore the characteristics and attainment of children routinely collected by schools alongside the wealth of information provided by parents and children in the Understanding Society survey. Before describing the linked dataset we outline the two component datasets and the key variables from each that are used in this project.

Understanding Society (USoc)

The research uses data from the Understanding Society survey (USoc), a large-scale longitudinal survey repeated annually with a panel of 40,000 households from across all four countries of the UK. USoc surveys all adult members of the household and collects information about a range of behaviours, attitudes and characteristics of the UK population. The survey also collects information from children aged 10-15 via a self-completion questionnaire. This questionnaire covers a range of issues including wellbeing, computer / internet use, family, future intentions, school, money, health and nutrition, and attitudes and aspirations. Children complete the questionnaire away from their parents to protect the confidentiality of their answers.

Using USoc to measure wellbeing

In 2011, the Office for National Statistics launched its Measuring National Wellbeing programme (MNW). During the early phases of the MNW it was the consensus view that children and young people's wellbeing required different sets of measures from those that were emerging in relation to adults. Consequently, this research uses two sets of questions asked to children via the self-completion questionnaire in USoc to measure i) Subjective wellbeing, and ii) Psychological wellbeing. These measures are described in more detail below.

Subjective wellbeing

Questions related to subjective wellbeing ask children to make an overall assessment of their satisfaction with life as a whole, and also with particular aspects of their life. The approach is founded on the principle that a good way to find out how satisfied children are with their lives is to ask them directly.

The questions in USoc ask children to rate their satisfaction on a scale from 1 'completely happy' to 7 'not at all happy'. There are six questions that ask children how they feel about:

- The school they go to
- Their school work
- Their appearance
- Their family
- Their friends
- Life as a whole¹

Figure 5. Categorising satisfaction scores

	Happy	Indifferent	Not happy
School	1-3	4	5-7
School work	1-3	4	5-7
Appearance	1-3	4	5-7
Friends	1-3		4-7
Family	1-3		4-7
Life as a whole	1-3		4-7

Within the debate on how to measure wellbeing has been extensive discussion about the optimal way of presenting and communicating the results in public. Wellbeing narratives are about central tendency, overall distributions, and cut-points in those distributions. Therefore in addition to comparing average scores we follow the approach taken by the New Economics Foundation (2009), Huppert and So (2013) and others such as Gallup (2015), in identifying thresholds of wellbeing and describing the proportions of respondents falling above and below these.

¹ See Figure 6 for the 6 subjective wellbeing questions asked in the USoc questionnaire.

The life satisfaction scores are presented in two ways; the average (mean) satisfaction score for each aspect of life (or 'domain'), and categories of score - adopting a similar approach to ONS (2015) who classified children into three groups; 'happy', 'indifferent' and 'not happy'. That previous research categorised children who score 5-7 on the 7-point scale as 'not happy'. We do that for three of the domains (school, school work, and appearance). For the other three domains (friends, family, and life as a whole) we have a different categorisation, combining 'indifferent' (score 4) and 'not happy' (score 5-7) as relatively few children scored 5-7 (see Figure 5).

Figure 6. Subjective wellbeing questions from the Understanding Society youth questionnaire

28 The next few questions are about how you feel about different aspects of your life. The faces express various types of feelings. Below each face is a number where '1' is completely happy and '7' is not at all happy. Please tick the box which comes closest to expressing how you feel about each of the following things...

A Your school work? YPHSW

1 2 3 4 5 6 7

B Your appearance? YPHAP

1 2 3 4 5 6 7

C Your family? YPHFM

1 2 3 4 5 6 7

D Your friends? YPHFR

1 2 3 4 5 6 7

E The school you go to? YPHSC

1 2 3 4 5 6 7

F Which best describes how you feel about your life as a whole? YPHLF

1 2 3 4 5 6 7

Source: NatCen (2011)

Psychological wellbeing

The Strengths and Difficulties Questionnaire (SDQ) was developed by Goodman (1997) to measure the behavioural and emotional health of children and young people. The SDQ is a short behavioural screening questionnaire used to help assess a child's psychological wellbeing. The complete assessment is carried out by getting children, parents and teachers to answer some questions about the child using a standardised questionnaire. In USoc, only the child completes the questionnaire (see Figure 7).

The SDQ has five sections that cover details of:

- i. emotional symptoms; this asks children whether they feel worried, unhappy, nervous, and easily scared
- ii. conduct (or behavioural) problems; this asks children whether they get angry, lie, cheat, steal, and do not do as they are told
- iii. hyperactivity or inattention; this asks children whether they feel restless, fidgety, distracted, do not think before acting, and do not finish their work
- iv. peer relationship problems; this asks children about difficulties they have getting on with other children such as whether they tend to play alone, have any good friends, think other people like them, get picked on, and prefer spending time with adults rather than children
- v. prosocial behaviour; this asks children about positive behaviours such as whether they are nice, sharing, kind, and helpful to other people

Figure 7. Psychological wellbeing questions (the Strengths and Difficulties Questionnaire) from the Understanding Society youth questionnaire

27 Now for some questions about how you see yourself as a person. For each item, please tick the box for Not True, Somewhat True or Certainly True. It would help us if you answered all items as best you can even if you aren't absolutely certain. Please give your answers on the basis of how things have been for you over the last six months.		Not true	Somewhat true	Certainly true
YPSDQA	I try to be nice to other people. I care about their feelings	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQB	I am restless, I cannot stay still for long	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQC	I get a lot of headaches, stomach-aches or sickness	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQD	I usually share with others (food, games, pens, etc.)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQE	I get very angry and often lose my temper	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQF	I am usually on my own. I generally play alone or keep to myself	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQG	I usually do as I am told	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQH	I worry a lot	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQI	I am helpful if someone is hurt, upset or feeling ill	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQJ	I am constantly fidgeting or squirming	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQK	I have one good friend or more	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQL	I fight a lot. I can make other people do what I want	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQM	I am often unhappy, down-hearted or tearful	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQN	Other people my age generally like me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQO	I am easily distracted, I find it difficult to concentrate	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQP	I am nervous in new situations. I easily lose confidence	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQQ	I am kind to young children	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQR	I am often accused of lying or cheating	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQS	Other children or young people pick on me or bully me	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQT	I often volunteer to help others (parents, teachers, children)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQU	I think before I do things	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQV	I take things that are not mine from home, school or elsewhere	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQW	I get on better with adults than with people my own age	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQX	I have many fears, I am easily scared	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
YPSDQY	I finish the work I'm doing	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Source: NatCen (2011)

Each section contains five questions and each question has three possible answers: 'not true', 'sometimes true' or 'certainly true'². Each answer is scored from 0 to 2 - for example, a child is asked whether they worry a lot, and the scoring is not true (0), sometimes true (1) or certainly true (2). The answer scores in each section are added together to give a score out of 10, with a higher score indicating more psychological difficulties. The scores from sections i) to iv) are also added together to generate a total difficulties score (out of 40).

$\text{Total difficulties score} = \text{Emotional difficulties} + \text{Conduct (or behavioural) problems} + \text{Hyperactivity or inattention} + \text{Peer relationship problems}$
--

The resulting score is often used as an initial assessment of a child's psychological health. The fifth section, prosocial behaviour, again contains five questions and is linked to emotional regulation, social competence and moral reasoning – the absence of prosocial behaviour (a low score on this element of the SDQ) can predict disruptive behaviour and emotional distress in children (Hay and Pawlby, 2003).

Again, we adopt two approaches to present children's psychological wellbeing. The average (mean) score for total SDQ, and its separate components, is used to compare levels of children's psychological wellbeing. We also use a classification guided by the distribution of scores in the child population (Goodman and Goodman, 2009). As adopted by the ONS (2015), we use a threshold that identifies children reporting a 'high' or 'very high' total difficulties score (see Figure 8). Around 10 per cent of the total child population are estimated to record 'high' or 'very high' scores and the higher the score means the more risk the child has of mental ill-health. Although it must be noted that the sensitivity of predicting clinical diagnosis is much higher using a multi-informant SDQ, and so the total difficulties score presented here should only be considered an indication of the prevalence of mental ill-health (ONS, 2015).

² See Figure 7 for the 25 psychological wellbeing questions asked in the USoc questionnaire and Annex B for details of the scoring per question.

Figure 8. Categorising SDQ scores for children (% of child population in each category)

	Close to average (80%)	Slightly raised (10%)	High (5%)	Very high (5%)
Emotional problems	0-4	5	6	7-10
Conduct problems	0-3	4	5	6-10
Hyperactivity	0-5	6	7	8-10
Peer problems	0-2	3	4	5-10
Total difficulties score	0-14	15-17	18-19	20-40
	Close to average (80%)	Slightly lowered (10%)	Low (5%)	Very Low (5%)
Prosocial	7-10	6	5	0-4

Source: (Goodman and Goodman, 2009)

National Pupil Database (NPD)

Despite being a wide-ranging survey, USoc does not ask whether children have a Special Education Need. Even if it did, this information would be provided from a parent (or carer), who may not know or want to provide such detail, rather than from an official source such as the assessment from the child’s school. However, this information is collected regularly by the Department for Education on the School Census, which is carried out three times a year in the spring (January), summer (May) and autumn (October) terms. The School Census collects a range of pupil-level information alongside SEN - including gender, ethnicity, language spoken at home, and whether the child is eligible for a free school meal. School Census information, and a range of other information collected by schools and Local Authorities, including attainment data for pupils as they progress through school, is collated and held on the National Pupil Database (NPD).

Using the National Pupil Database to measure Special Educational Needs

By definition, children and young people with Special Educational Needs have learning difficulties or disabilities that make it harder for them to learn than most children of the same age. Hence children with SEN may need extra or different help from that given to other children of the same age (DfE, 2015). Children and young people with SEN may need extra help because of a range of needs. Paragraphs 6.27 – 6.35 of the *Special Educational Needs and Disability code of practice: 0 to 25 years* (DfE & DH, 2015) set out four areas of SEN:

- Communicating and interacting – for example, where children and young people have speech, language and communication difficulties which make it difficult for them to make sense of language or to understand how to communicate effectively and appropriately with others
- Cognition and learning – for example, where children and young people learn at a slower pace than others their age, have difficulty in understanding parts of the curriculum, have difficulties with organisation and memory skills, or have a specific difficulty affecting one particular part of their learning performance such as in literacy or numeracy
- Social, emotional and mental health difficulties – for example, where children and young people have difficulty in managing their relationships with other people, are withdrawn, or if they behave in ways that may hinder their and other children’s learning, or that have an impact on their health and wellbeing
- Sensory and/or physical needs – for example, children and young people with visual and/or hearing impairments, or a physical need that means they must have additional ongoing support and equipment

Some children and young people may have SEN that cover more than one of these areas.

The SEN data used for this research is from 2012/13, and predates the reforms to the SEND system introduced in 2014. Hence, children received support via a different system to now. At the time the data was collected for this study, there were different types of support for children with SEN depending on their level of need: School Action and School Action Plus (which were replaced by SEN support) and Statements (which are being replaced by Education, Health and Care (EHC) plans).

As discussed below, the research in this report does not distinguish between a child’s type of SEN because it is not included in the linked dataset (despite being available on the full NPD). Neither does the research compare type of support, because there are not enough children in the linked dataset to allow robust analysis.

The linked data: Understanding Society – National Pupil Database³

Data linkage was carried out for all school-age children aged four and over who were living in England whose parent consented to data linkage at wave 1 (2009/10) of Understanding Society (USoc). The USoc data was linked to the NPD data in 2013, and the most recent record from the NPD was used. This meant that 2012/13 NPD data was extracted where possible, and where not the previous year’s NPD data was used, and so on until a match occurred. To ensure the NPD data was recent, this project only includes

³ See Annex A for the data linkage form parents/carers were asked to complete. For further information on the data linkage process see ISER (2015)

children whose NPD data came from 2010/11 and later (but note that the vast majority comes from 2012/13).

This project uses USoc data from children who completed the youth self-completion questionnaire in 2011/12. The 2011/12 USoc data is used because it is the survey year closest to the timing of the NPD data, and because the survey carried out that year contains questions on both subjective and psychological wellbeing (the 2012/13 USoc survey only asked about subjective wellbeing, not psychological wellbeing too).

Linked data from 1600 children is used in this project. The children were aged 10-15 in 2011/12 and living in England. The number of children in the linked data according to the different types of SEN support is given below.

Table 1. Number of children (aged 10-15) in the linked data according to SEN support category

Special Educational Needs support category		Number of children in linked dataset
No Special Educational Needs		1,301
Children with Special Educational Needs	School Action or Early Years Action	176
	School Action Plus or Early Years Action Plus	77
	Statement	46
	All with Special Educational Needs	299
All children		1600

Source: Understanding Society – National Pupil Database (linked dataset)

For this project, given the limited number of children with SEN in the data, the analysis will only compare children with and without SEN – it will not be able to distinguish between children with the different types of SEN support.

A note on weighting

Surveys such as Understanding Society collect information from a sample of the population. Rigorous efforts are made to ensure that the survey sample is representative of the population it is drawn from. In this research we want the sample of 10-15 year olds with SEN to be representative of all 10-15 years olds with SEN. We can then say that the research findings represent the characteristics and experiences of all 10-15 years olds with SEN, rather than just those who have taken part in the survey.

There are a number of reasons why the children in the Understanding Society sample, and whose SEN information from the NPD was subsequently linked, are not representative:

- Some families selected for the Understanding Society survey did not take part
- Some families had dropped out by the third year of survey (2011/12)

- Some children did not complete the self-completion questionnaire in 2011/12⁴
- Some children living in England in 2009/10 were not living in England in 2011/12 (the NPD only collects information from schools in England)
- Some parents did not consent to their children's Understanding Society data being linked to the NPD
- Some parents who did consent to data linking did not have their child's data linked due to administrative reasons

One way of adjusting a sample to look more like the population is to create a weight. The weight is then applied during analysis to ensure the research findings can be generalised to the population. A number of weights are supplied with the Understanding Society dataset but none are appropriate to be applied to the sample of children used in this research. Therefore a new weight had to be calculated.

The weight was calculated by first identifying the sample of children from Understanding Society who met the criteria for inclusion in this research. That was:

- They took part in the first year of the survey in 2009/10 (when parents were asked consent to data linking)
- They also took part in the third year of the survey in 2011/12 (from which the wellbeing data was used for this research)
- They were also of the age to be asked to complete the self-completion questionnaire in 2011/12 (age 10-15)

The base weight supplied with the Understanding Society dataset for analysing this sample is the wave 1-3 longitudinal weight.

A logistic regression model was developed based on this sample in which the dependent variable was whether the child is available for analysis; that is, the child completed the self-completion survey in 2011/12 and had their data linked to the NPD. The logistic regression model predicted whether the child is available for analysis using a set of predictor variables that can influence data linkage consent for children (Al Baghal, 2016): age of child, sex of child, ethnicity of child, household income, family work status, highest educational qualification of parents, rurality, and government office region. The Understanding Society wave 1-3 longitudinal weight was then divided by the predicted probabilities from the logistic regression model to give the analysis weight.

Data analysis

There are two main forms of statistical analysis carried out in this report.

⁴ Note that children with SEN may be particularly likely not to complete a questionnaire, especially if their SEN prevent them from doing so.

- Descriptive analysis is used to compare children with SEN and children without SEN. This most often uses percentages of children above or below a particular wellbeing threshold (for example, the % of children with SEN who record a 'high' or 'very high' total SDQ score). It also uses average wellbeing scores (for example, the mean life satisfaction score of children with SEN).
- Regression analysis is used to explore whether there are statistically significant differences between children with SEN and children without SEN. Regression analysis is used to identify differences in characteristics of children, for example whether children with SEN are more likely than children without SEN to be boys, and differences in wellbeing, for example whether children with SEN are more likely than children without SEN to be 'unhappy' with their school work. Regression analysis is also used to explore whether a child's SEN status is associated with wellbeing after taking other potentially confounding factors into account (i.e. the characteristics of children, such as their gender or ethnicity, which may also help explain children's wellbeing⁵).

Two types of regression analysis are used: multiple linear regression is used to predict children's wellbeing score (e.g. on the unhappiness scale from 1-7), and logistic regression is used to predict the likelihood of children scoring above a threshold (e.g. scoring 4-7 on the unhappiness scale and hence being 'unhappy'). Logistic regression is also used to predict which children are likely to have SEN.

The results of the multiple linear regression are presented as the increase (or decrease) in the wellbeing score for a category of an explanatory factor under consideration (such as having SEN) compared to the reference category (not having SEN).

The results of the logistic regression analysis are presented as odds ratios (OR), which describe the ratio of the odds of being above the low wellbeing threshold (e.g. scoring 5 or more on the 7-point unhappiness scale, and hence being defined as 'unhappy') for a particular explanatory factor (such as having SEN) to the odds of being above the low wellbeing threshold for the reference, or comparison, category of the same factor (e.g. not having SEN). An OR greater than 1 indicates an increased chance of the outcome, and an OR less than 1 indicates a decreased chance. For example, an OR of 2 would indicate that children with SEN had twice the odds (i.e. were more likely) of having low wellbeing compared to children without SEN. Likewise an OR of 0.5 would indicate that children with SEN had half the odds (i.e. were less likely) of having low wellbeing compared with children without SEN.

It is important to point out that the regression analysis does not determine the direction of these associations – that is, it is not possible to say whether being bullied means a child

⁵ The other factors to be taken into account are those deemed to be associated with wellbeing in previous research (e.g. ONS, 2011; Chanfreau et al, 2013; ONS, 2014; ONS, 2015; ONS, 2016) and include characteristics of the child, their family and their school, and children's behaviours and relationships (see Figure 9).

is more likely to have emotional problems, or whether having emotional problems means a child is more likely to be bullied. Both could be true and further research would be needed to unravel the causal process. However, this analysis can detect whether such associations exist and hence opens the door to further discussion.

Note that to preserve the anonymity of the survey respondents, no findings are presented where there are less than 10 children in a cell of a table. Furthermore, to ensure the analysis is robust, no findings are presented where the base (or the denominator in calculations) is less than 50 children.

Figure 9. Outline of analytical model

<p><u>Outcome (or dependent variable)</u></p> <p>Wellbeing</p> <ul style="list-style-type: none">• Subjective wellbeing, or, Psychological wellbeing
--

Predictors (or independent variables)

Special Educational Needs

Personal characteristics of child

- Gender
- Ethnic group
- Language

Family characteristics

- Family type
- Age of mother
- Number of dependent children
- Age of youngest child

Family economic background

- Highest qualification
- Work status
- Income
- Free School Meal eligibility

Health and wellbeing of mother

- Long-standing illness or disability
- Subjective wellbeing
- Life satisfaction

Child behaviours

- Risky behaviours, including smoking and drinking alcohol
- Amount of screen time
- Being bullied at school (physically / emotionally)

Child relationship with parents

- Family meal
- Talk to mother and to father about important matters (child and parent views)

Wellbeing (used when the measure is not the dependent variable)

- Subjective wellbeing, or, Psychological wellbeing

The data analysis used the survey commands in STATA to apply the weight and also take into account the complex sampling used in the Understanding Society survey⁶.

⁶ For more information on the Understanding Society sample design please see Lynn (2009).

Representativeness of sample

The following analysis compares the linked dataset to the full NPD dataset. This is important to check that the sample of children used in this research is representative of all children (aged 10-15 and living in England). The NPD component of the linked dataset is a subset of the full NPD dataset; the linked dataset is children on the NPD who took part in the Understanding Society survey and had their data successfully linked. Table 2 presents weighted analysis of the linked dataset alongside the full NPD for children of interest in this research.

The findings show that:

- Approximately one in five secondary school children (aged 10-15 years) have SEN
- Boys are more likely than girls to have SEN
- Children with free school meal eligibility are more likely to have SEN
- Ethnic group (collated⁷) and language have no association with the likelihood of having SEN

Table 2. Percentage of children (aged 10-15) that have SEN by child characteristics

Child characteristic		% of children with SEN		
		USoc-NPD linked data		Full NPD
		Weighted %	Base of % (n)	%
All children		19%	1600	19%
Gender	Boys	24%	803	27%
	Girls	14%	797	16%
Ethnic group	White	18%	1188	19%
	Ethnic minority	20%	406	19%
Language	English	18%	1367	19%
	Not English	20%	229	19%
Eligible for Free School Meals	No	15%	1322	16%
	Yes	35%	278	34%

Source: Understanding Society – National Pupil Database (linked dataset)
Full NPD % taken from Department for Education’s published SEN statistics (DfE, 2013)

The findings broadly mirror the data from the full NPD (DfE, 2013) suggesting that the sample of children we use in this research is a good representation of the population of secondary-school children with SEN in England. There are some minor differences

⁷ When grouping ethnic groups together there is no difference in the propensity for having SEN between White and Ethnic Minority children. Other research (Lindsay et al, 2006) has found certain ethnicity groups to be under- and over-represented among children with SEN, depending on ethnic group and type of SEN. It is likely that our more aggregated analysis, because of limited sample sizes, cancels out these differences.

between the linked dataset and the full NPD which the weight does not completely take into account. These differences should be born in mind when interpreting the findings presented in this report.

The following chapters present the research findings from this study. They are presented across three chapters:

- Describing children with Special Educational Needs
- Subjective wellbeing of children with Special Educational Needs
- Psychological wellbeing of children with Special Educational Needs

Describing children with Special Educational Needs

This chapter focuses on describing the characteristics of children that have Special Educational Needs (SEN), and comparing them to children without SEN. The aim of the chapter is to illustrate the characteristics of children, and their families, that are associated with having SEN. Although children from any background can have SEN, children with certain characteristics or from certain backgrounds are more likely to have SEN. By understanding which children are more likely to have SEN we are better able to interpret the findings in later chapters that explore the links between having SEN and wellbeing.

Identifying statistically significant differences

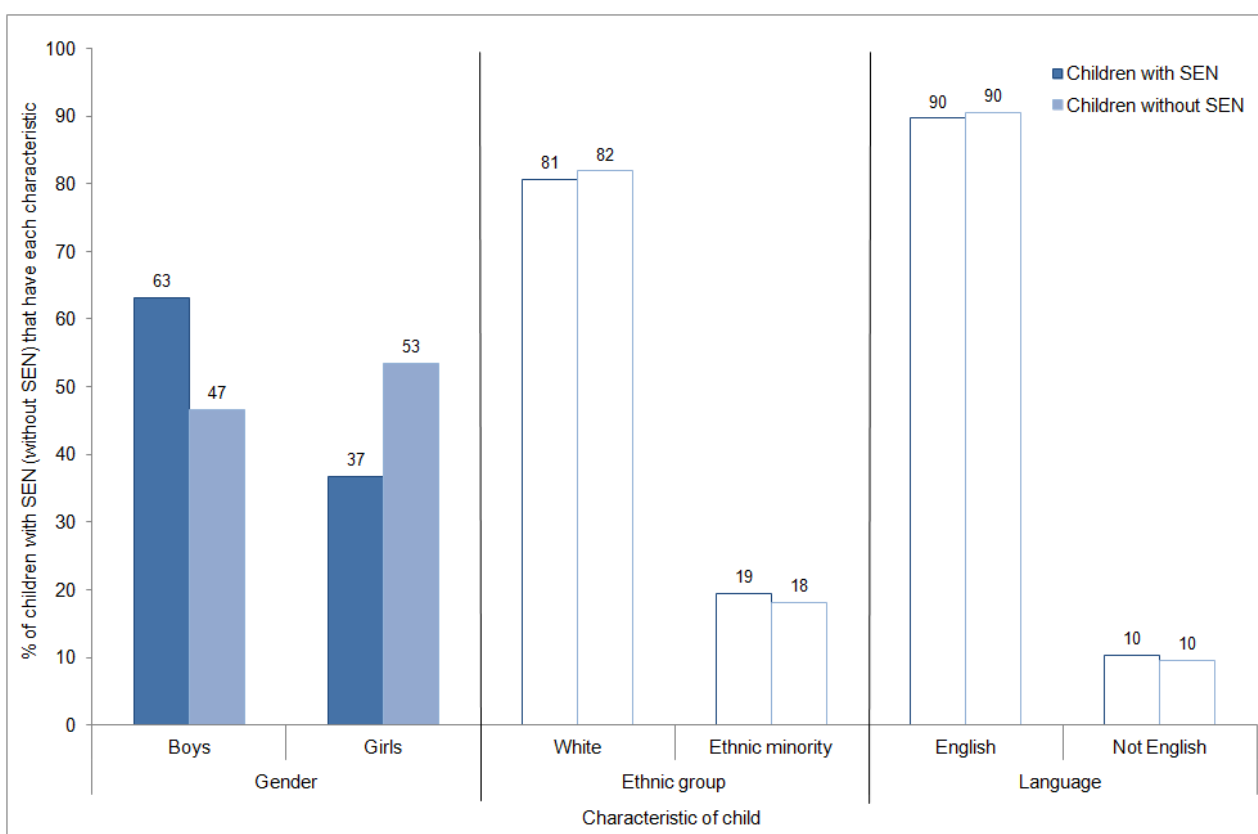
- The left (dark) of each pair of bars represent children with SEN, and the right (light) of each pair of bars represent children without SEN.
- If the bars are shaded then the differences between children with and without SEN are statistically significant. This means that the differences are unlikely to happen by chance (e.g. sampling error) and that we would expect to see differences in the population.
- If the bars are white then there is no statistically significant difference between children with and without SEN.
- For example, Figure 10 shows that 63% of children with SEN are boys (and hence that 37% of children with SEN are girls). It also shows that 47% of children without SEN are boys (and hence that 53% of children without SEN are girls). Therefore, children with SEN are more likely to be boys (63% are boys) than children without SEN (47 per cent are boys) – and that this difference is statistically significant.

Personal characteristics of children

This section looks at some of the personal characteristics of children; their gender, whether they come from a minority ethnic group and their main language.

- As stated above, boys are more likely to have SEN
- There is no significant difference in the characteristics of children with SEN according to whether they are from an ethnic minority group (when collated into one group⁷) nor according to whether English is their first language or not

Figure 10. Personal characteristics of children with (and without) SEN



Source: Understanding Society – National Pupil Database (linked dataset)

The left (dark) bars in each pair of bars represent children with SEN

The right (light) bars in each pair of bars represent children without SEN

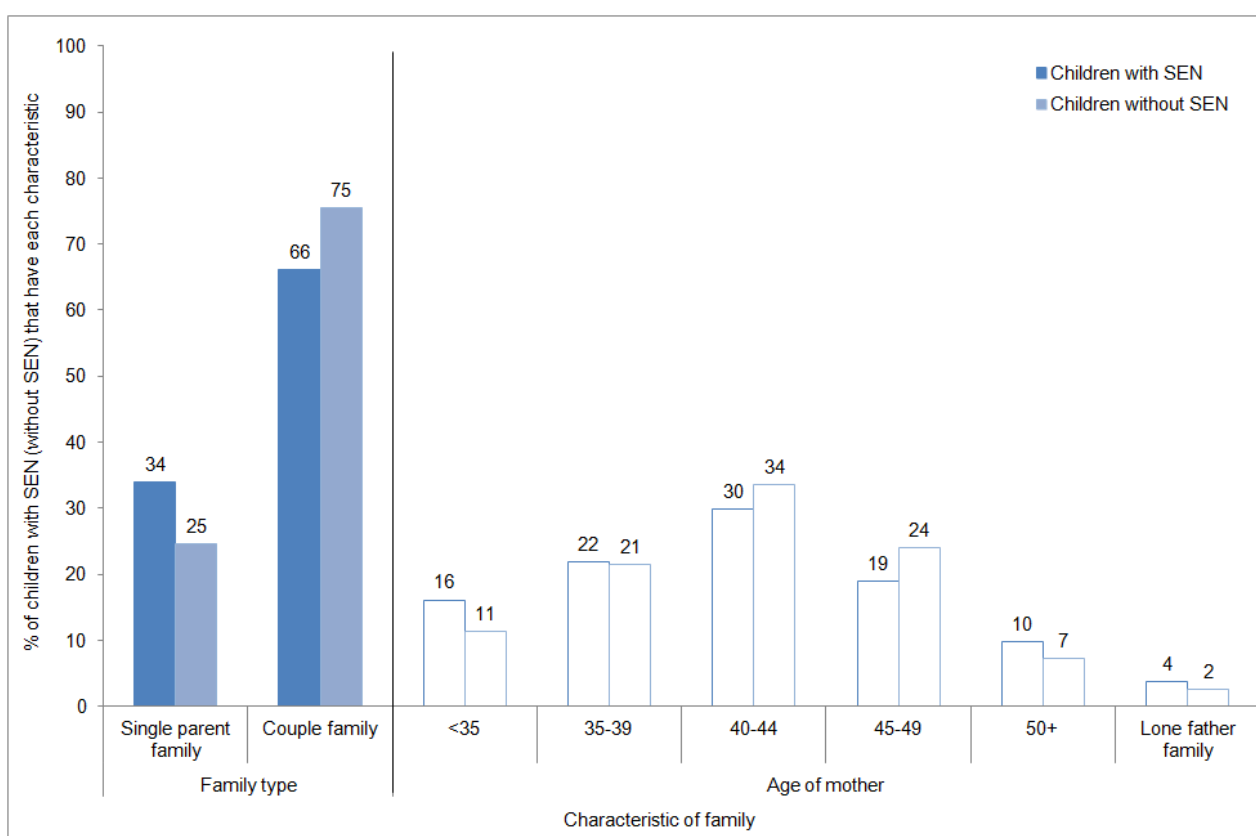
White bars indicate no statistically significant difference between children with and without SEN

Family characteristics

This section looks at the characteristics of the family in which the children live, including the partnership status of their parents, their mother's age, and the number and age of other children they live with.

- There is a higher percentage of children from single parent families amongst children with SEN than there are amongst children without SEN (34 per cent compared to 25 per cent⁸). This is likely to be linked to other characteristics of single parent families (such as economic and social disadvantage – see charts below)
- There is no statistically significant association between whether a child has SEN and the age of their mother

Figure 11. Family characteristics of children with (and without) SEN



Source: Understanding Society – National Pupil Database (linked dataset)

The left (dark) bars in each pair of bars represent children with SEN

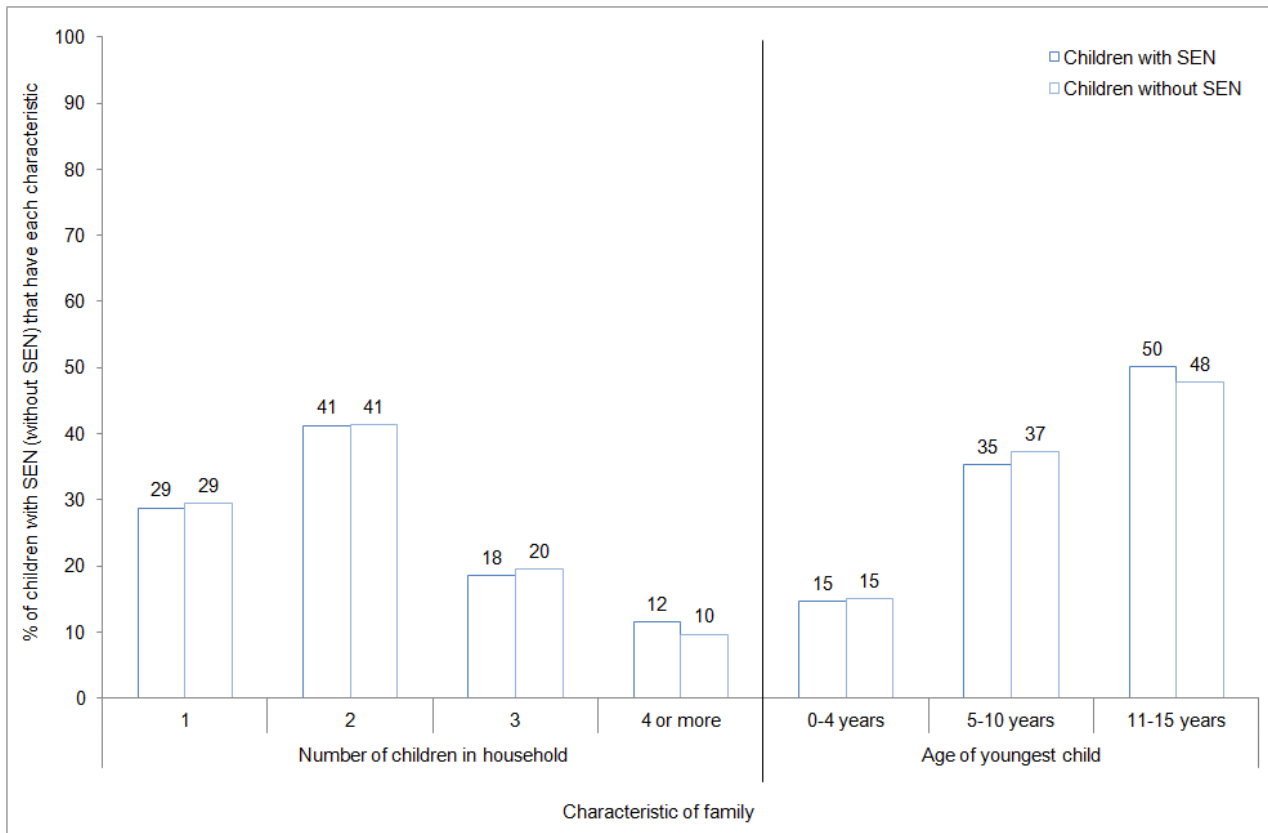
The right (light) bars in each pair of bars represent children without SEN

White bars indicate no statistically significant difference between children with and without SEN

⁸ Chatzitheochari et al (2014) found a similar distribution amongst 15 year olds in the Longitudinal Study of Young People in England.

- There is no significant difference in the characteristics of children with SEN according to the number of children in the family, nor according to age of the youngest child in the family

Figure 12. Family characteristics of children with (and without) SEN



Source: Understanding Society – National Pupil Database (linked dataset)

The left (dark) bars in each pair of bars represent children with SEN

The right (light) bars in each pair of bars represent children without SEN

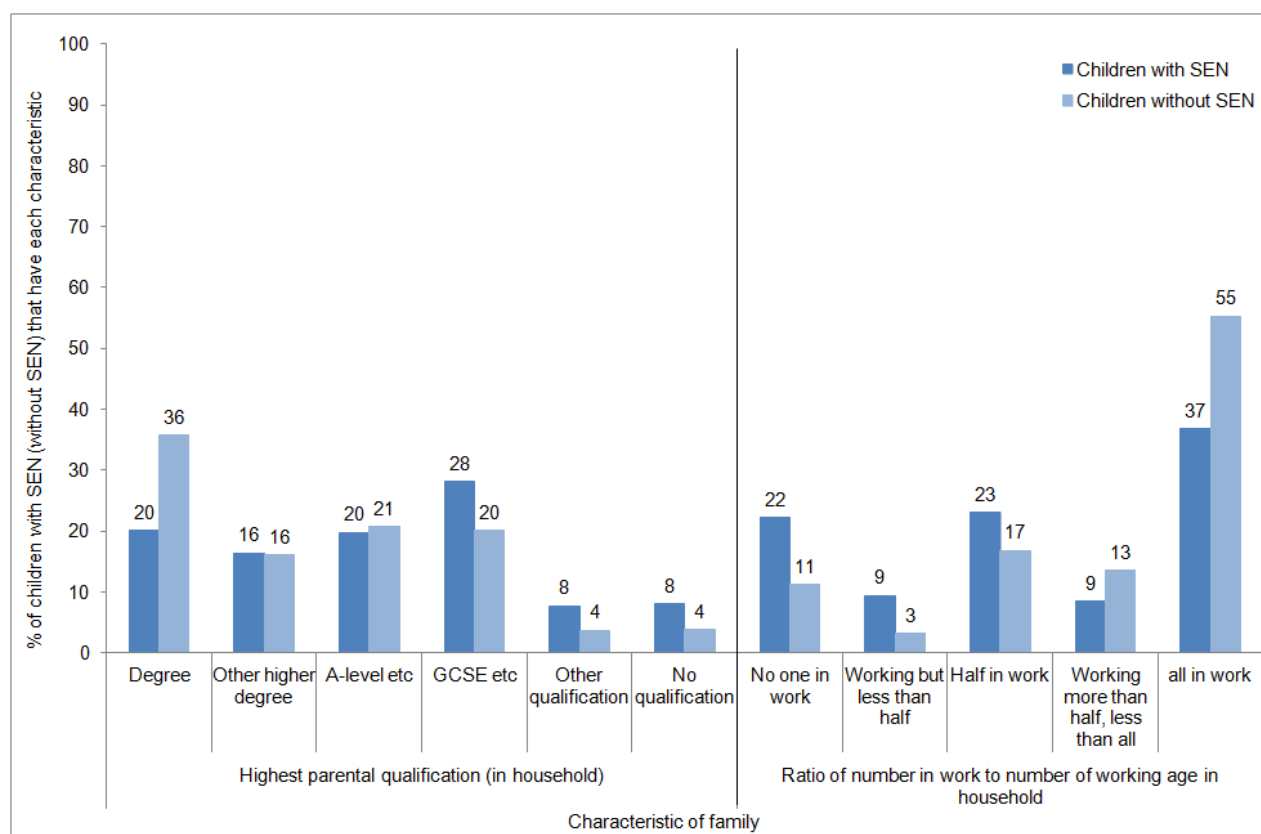
White bars indicate no statistically significant difference between children with and without SEN

Family economic background

This section looks at the economic background of the children's family, focusing on parental education level, work status and income. In general, children with SEN are slightly more likely to come from more disadvantaged families.

- Children with SEN are more likely to have parents with lower levels of education than children without SEN. For example, 44 per cent of children with SEN have parents with education at GCSE level or below compared to 28 per cent amongst children without SEN.
- Children with SEN are also more likely to come from workless and low working families. For example, over one in five (22 per cent) come from families with no adult in work compared to 11 per cent of children without SEN.

Figure 13. Parental education and work status of children with (and without) SEN



Source: Understanding Society – National Pupil Database (linked dataset)

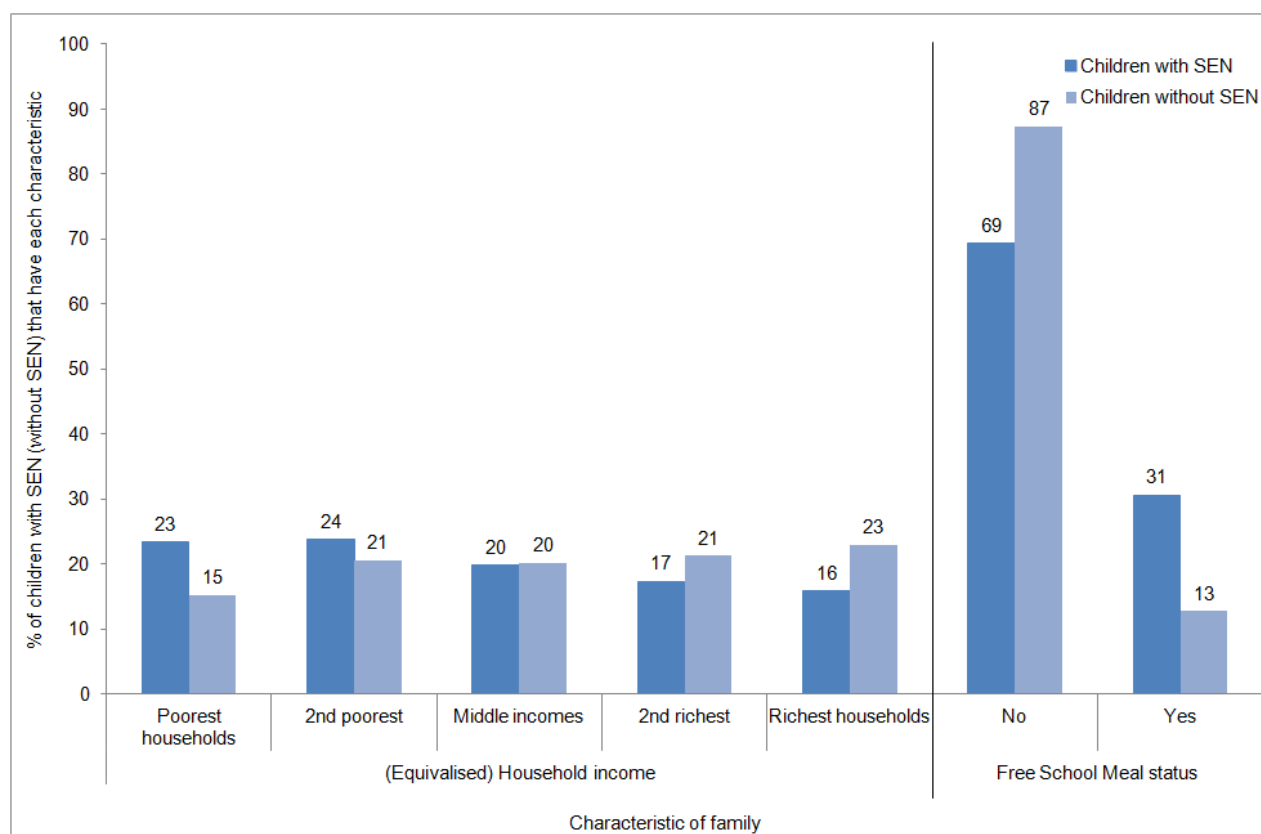
The left (dark) bars in each pair of bars represent children with SEN

The right (light) bars in each pair of bars represent children without SEN

White bars indicate no statistically significant difference between children with and without SEN

- There is a higher percentage of poorer families amongst children with SEN than there are amongst children without SEN. For example, nearly a quarter (23 per cent) of children with SEN come from families in the lowest income quintile (i.e. the poorest 20% of households) compared to 15 per cent of children without SEN
- Children with SEN are also more likely to be eligible to claim Free School Meals (31 per cent of children with SEN compared to 13 percent of children without SEN)

Figure 14. Family income of children with (and without) SEN



Source: Understanding Society – National Pupil Database (linked dataset)

The left (dark) bars in each pair of bars represent children with SEN

The right (light) bars in each pair of bars represent children without SEN

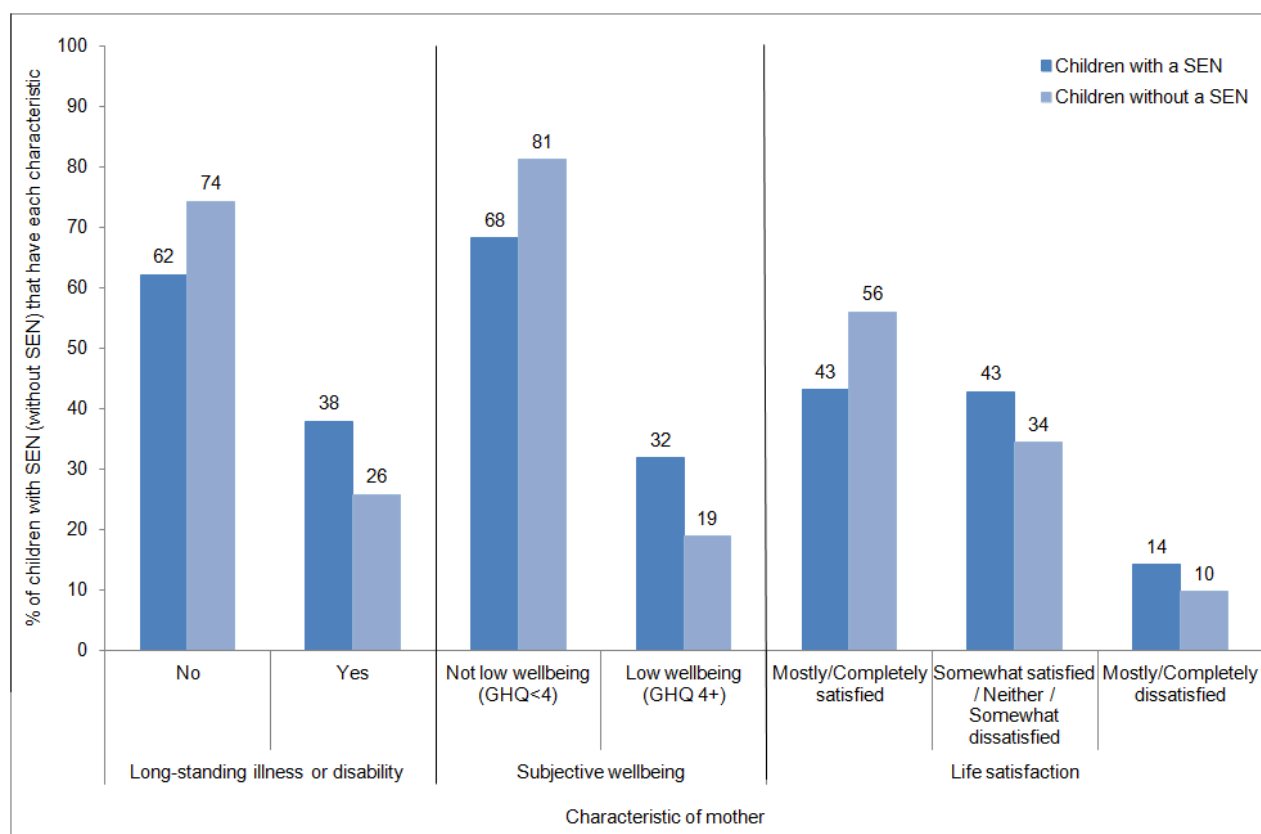
White bars indicate no statistically significant difference between children with and without SEN

Characteristics of mother

This section examines the characteristics of mothers in terms of their physical health and wellbeing. Children with SEN tend to have mothers with worse health and wellbeing than children without SEN.

- There is a higher percentage of children with SEN whose mother has a long-standing illness or disability (38 per cent of children with SEN compared to 26 per cent of children without SEN)
- Children with SEN are also more likely to have a mother who reports low wellbeing (32 per cent of children with SEN compared to 19 per cent of children without SEN) and are less likely to have a mother who says she is mostly or completely satisfied with her life (43 per cent of children with SEN compared to 56 per cent of children without SEN)

Figure 15. Characteristics of mother of children with (and without) SEN



Source: Understanding Society – National Pupil Database (linked dataset)

The left (dark) bars in each pair of bars represent children with SEN

The right (light) bars in each pair of bars represent children without SEN

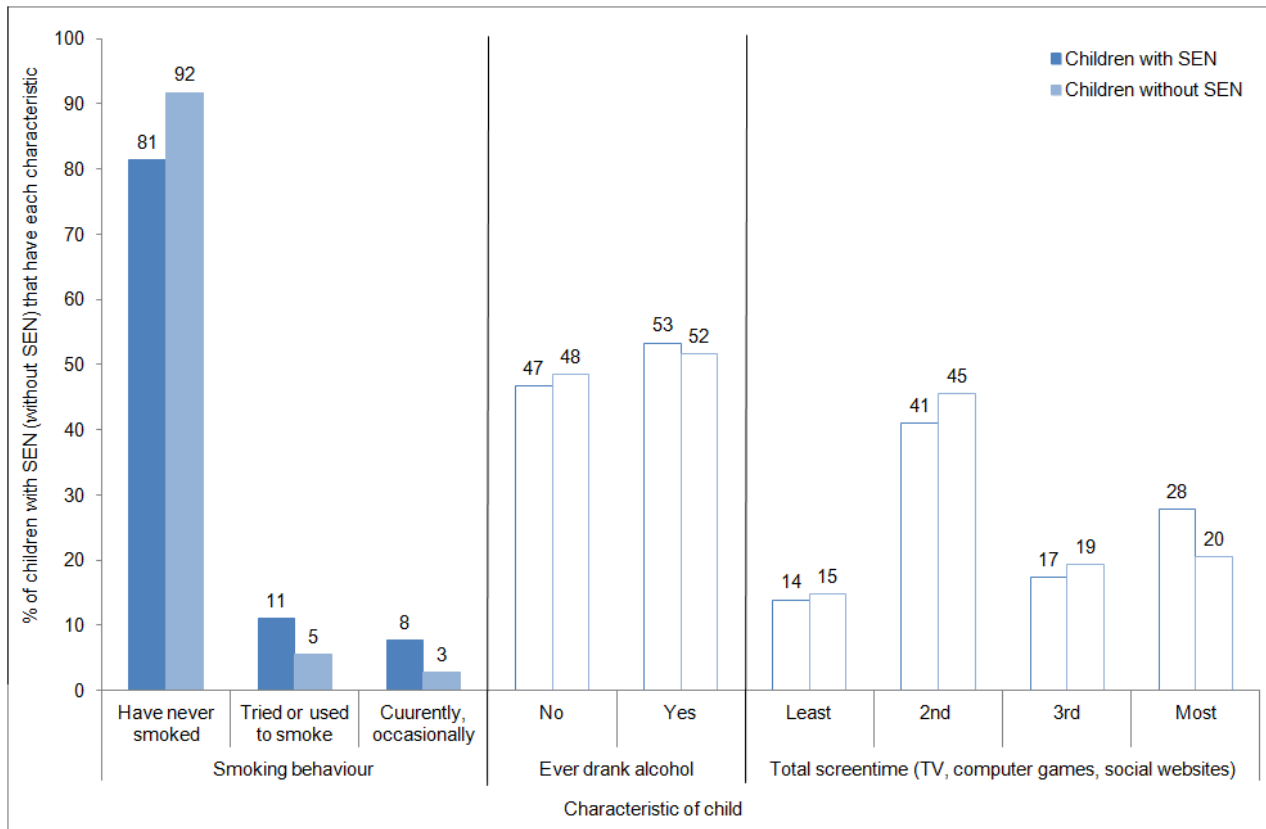
White bars indicate no statistically significant difference between children with and without SEN

Child behaviours

This section explores the behaviours of children with SEN, including ‘risky behaviours’ such as smoking and drinking alcohol. Children with SEN are more likely to have smoked but not significantly more likely to have drunk alcohol or have high screen time.

- There is a higher percentage of children with SEN who have smoked (19 per cent of children with SEN compared to 8 per cent of children without SEN)
- There is no significant difference in the proportion of children with and without SEN who have drunk alcohol
- There is no significant difference in the time children with and without SEN spend in front of a screen (TV, computer games and social websites)

Figure 16. Risky behaviours of children with (and without) SEN



Source: Understanding Society – National Pupil Database (linked dataset)

The left (dark) bars in each pair of bars represent children with SEN

The right (light) bars in each pair of bars represent children without SEN

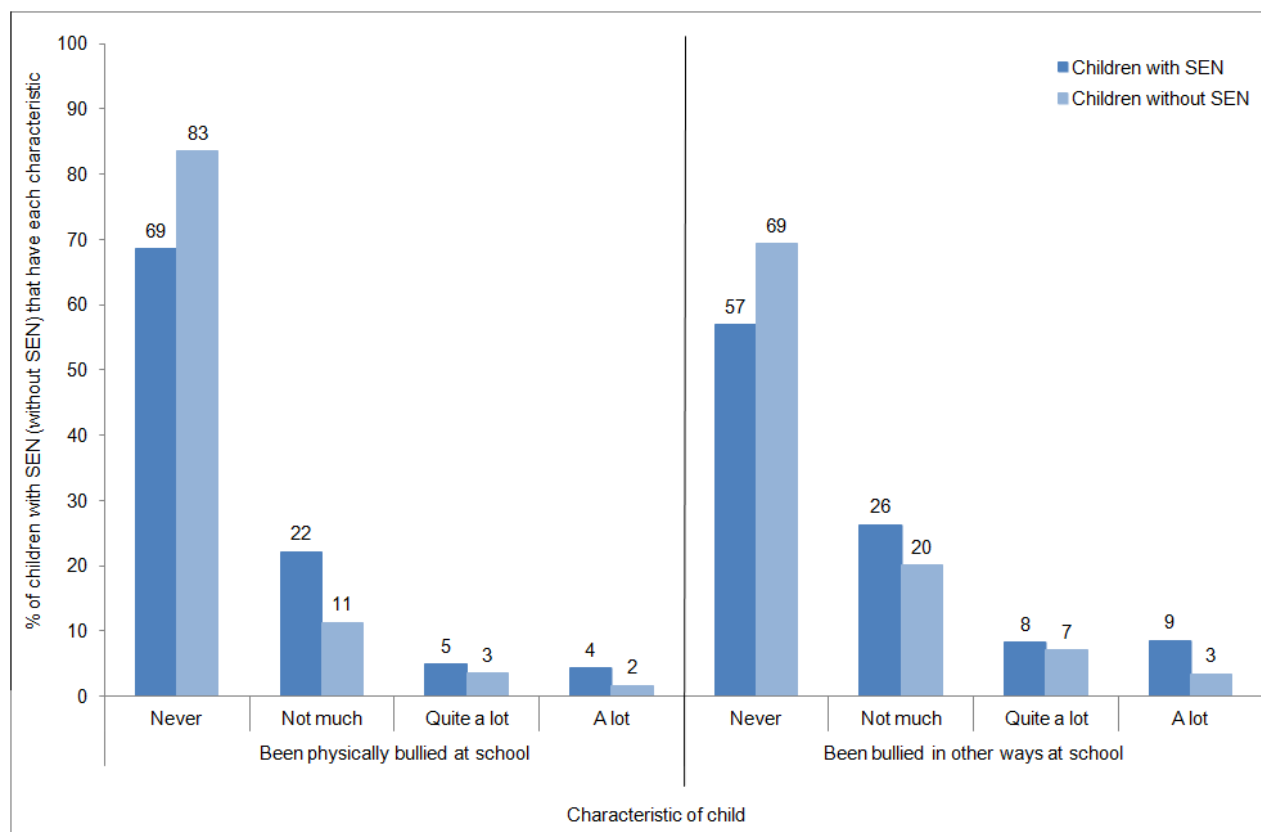
White bars indicate no statistically significant difference between children with and without SEN

Bullying

We know from other research that children with SEN are more likely than children without SEN to have been bullied – these findings are replicated in this study.

- There is a higher percentage of children with SEN who have been physically bullied at school (31 per cent of children with SEN compared to 16 per cent of children without SEN)
- There is also a higher percentage of children with SEN who have been bullied in other ways at school (43 per cent of children with SEN compared to 30 per cent of children without SEN)

Figure 17. Bullying of children with (and without) SEN



Source: Understanding Society – National Pupil Database (linked dataset)

The left (dark) bars in each pair of bars represent children with SEN

The right (light) bars in each pair of bars represent children without SEN

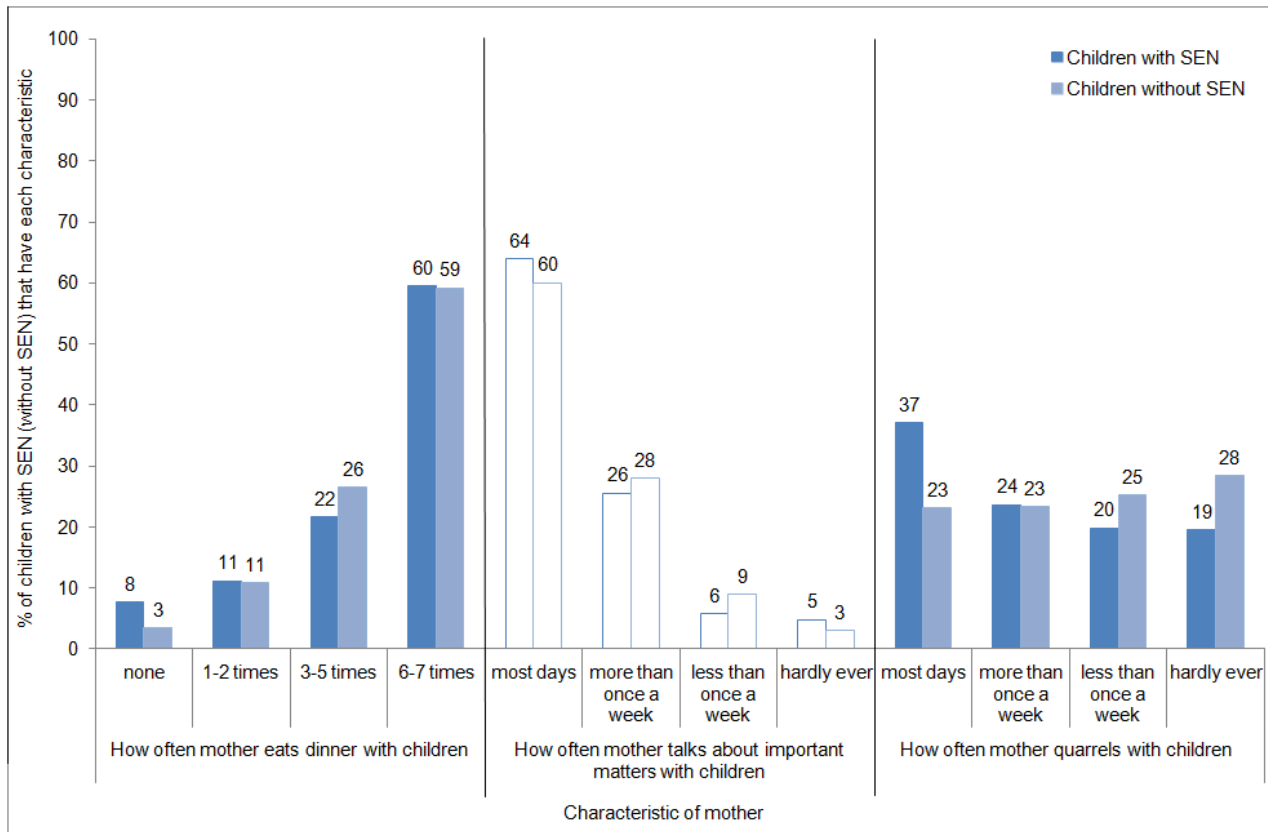
White bars indicate no statistically significant difference between children with and without SEN

Child relationship with parents

This section looks at children's relationship with their parents. Relationships are explored both from the perspective of parents and from children themselves. There are slight differences between children with and without SEN, most notably that children with SEN are more likely to quarrel with their mother, and children saying they talk to their mother about important matters.

- There is a slightly higher percentage of children with SEN who eat dinner with their mother less frequently (for example, 8 per cent of children with SEN never do this compared to 3 per cent of children without SEN). However, around three in five children eat dinner with their mother on most days regardless of whether they have SEN or not.
- There is no significant difference in how often mothers talk to their children about important matters according to whether children have SEN or not
- Children with SEN are more likely to quarrel with their mother on most days (37 per cent of children with SEN compared to 23 per cent of children without SEN)

Figure 18. Parents' relationship with children with (and without) SEN



Source: Understanding Society – National Pupil Database (linked dataset)

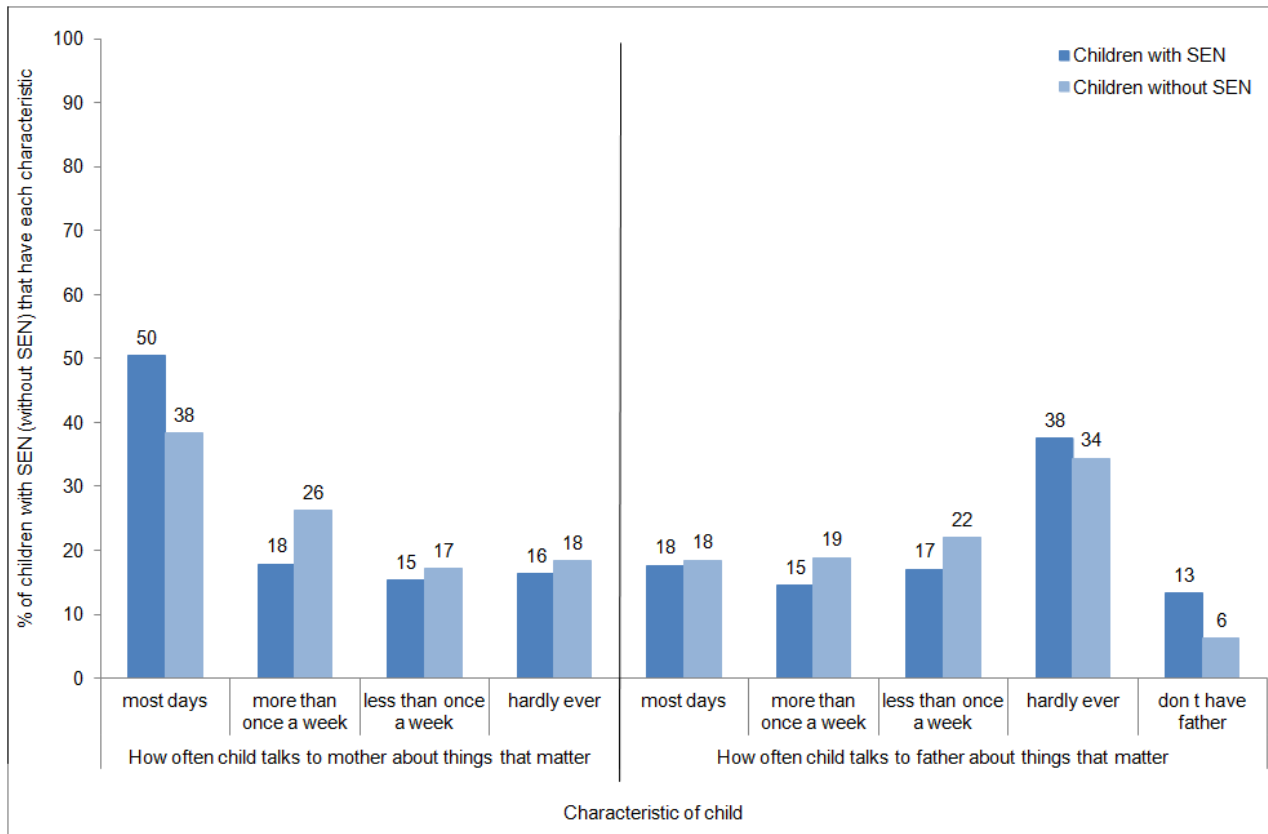
The left (dark) bars in each pair of bars represent children with SEN

The right (light) bars in each pair of bars represent children without SEN

White bars indicate no statistically significant difference between children with and without SEN

- Children with SEN are more likely to say that they talk to their mother about things that matter on most days (50 per cent of children with SEN compared to 38 per cent of children without SEN)
- There is relatively little difference in how often children talk to their father about things that matter according to whether children have SEN or not – although children with SEN are more likely to say hardly ever (and that they do not have a father – Chapter 2 showed that children with SEN are more likely to live in single parent families, which are predominantly single mothers).

Figure 19. Children's' relationship with parents, children with (and without) SEN



Source: Understanding Society – National Pupil Database (linked dataset)

The left (dark) bars in each pair of bars represent children with SEN

The right (light) bars in each pair of bars represent children without SEN

White bars indicate no statistically significant difference between children with and without SEN

Subjective wellbeing of children with Special Educational Needs

This chapter compares levels of subjective wellbeing for children with and without Special Educational Needs (SEN). Subjective wellbeing is measured on a scale from 1 'happy' to 7 'unhappy', so a higher score indicates higher levels of 'unhappiness'. First, average (mean) unhappiness scores are presented for each of the six wellbeing domains: School, School work, Appearance, Family, Friends, and Life as a whole. Then the percentage of children that report being above a particular level of unhappiness is explored - children who score above 5 (out of 7) for their views of School, School work, and Appearance, and children who score above 4 (out of 7) for their views of Family, Friends, and Life as a Whole (a different threshold is taken as so few children report being 'unhappy' with these aspects of their lives).

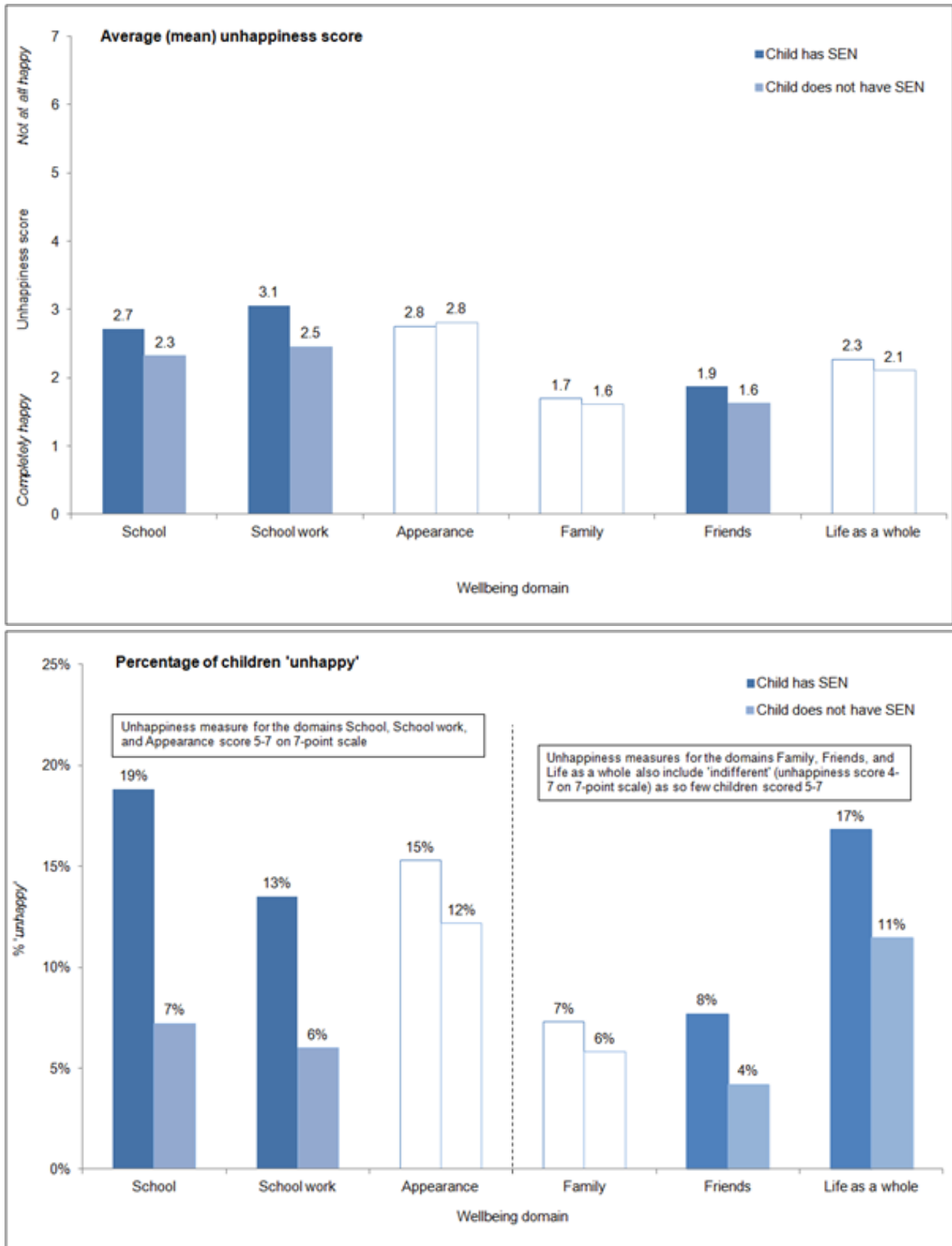
Overall subjective wellbeing

Figure 20 presents the average (mean) unhappiness score (top chart) and the percentage of children below the unhappiness threshold (bottom chart). Each pair of bars compares children with SEN with children without SEN (taking no other factors into account). If the bars are shaded, rather than white, it means that there is a statistically significant difference between children with SEN with children without SEN (taking no other factors into account). It shows that:

- Children with SEN have lower levels of wellbeing (higher average unhappiness score) than children without SEN when talking about their school, their school work, and their friends
- Likewise, children with SEN are more likely to feel unhappy with their school, school work, and their friends⁹
- The difference between children with SEN and children without SEN is most marked for feelings about school (19% of children with SEN are unhappy compared to 7% without SEN) and school work (13% and 6%)
- There was no significant difference between the wellbeing of children with and without SEN for appearance, family, and life as a whole

⁹ For friends score 'unhappy' and 'indifferent' have been combined (score 4-7 out of 7)

Figure 20. Subjective wellbeing of children aged 10-15 by SEN status



Source: Understanding Society – National Pupil Database (linked dataset)

The left (dark) bars in each pair of bars represent children with SEN

The right (light) bars in each pair of bars represent children without SEN

White bars indicate no statistically significant difference between children with and without SEN

The results above suggest that children with SEN show instances of having lower wellbeing than children without SEN across a number of domains. There is evidence that children with SEN are more likely than children without SEN to have lower wellbeing in relation to their school and school work, and friends. For these areas of their lives, children with SEN demonstrate a higher average unhappiness score than children without SEN - and a higher proportion specifically say that they are 'not happy'. Children with SEN are also more likely to be unhappy/indifferent with their life as a whole.

However, we know that children with SEN are also more likely to have other characteristics that could lead to low wellbeing, so having SEN may not necessarily be a driving factor of low wellbeing, or its influence may be relatively low. For example, Chapter 2 showed that children with SEN are more likely to be from poorer families, have mothers with lower wellbeing and to be bullied, all factors that other research has shown can lead to lower wellbeing.

Below we use regression analysis to explore whether having SEN remains an important factor associated with wellbeing when these other characteristics of children and their family are taken into account. In many cases the analysis suggests that SEN status may not be an independent driver of low wellbeing – however, there are instances where it may be.

- The first half of Table 3 uses multiple linear regression analysis to assess whether SEN status has an impact on the overall unhappiness score when taking these other factors into account (see Figure 9 above for the list of factors used). Analysis is carried out separately for each of the six wellbeing domains. Statistically significant differences between children with and without SEN are presented in bold text.
- As we saw in Figure 20 children with SEN are more likely than children without SEN to have higher unhappiness scores when thinking about their school, their school work, and their friends.

Table 3 shows that:

- After taking the other factors into account having SEN is only associated with school work (it is no longer associated with school or friends). Children with SEN have, on average, an unhappiness score 0.28 points higher than children without SEN.
- Children with SEN were less likely to be unhappy with their appearance (average score 0.21 points lower than children without SEN)

The second half of Table 3 uses multiple logistic regression to show whether SEN status predicts whether a children is unhappy.

- After taking the other factors into account, children with SEN were more likely than children without SEN to say they were unhappy with their school (odds ratio 1.84)

Table 3. Subjective wellbeing: Regression analysis to isolate impact of having SEN
Increase in unhappiness score for children with SEN compared to children without SEN

Wellbeing domain (and model: Linear regression analysis)	Coef.¹	Std. Err.	Sig.
School			
Children with SEN compared to children without SEN (No control variables)	0.39	0.13	0.00
Children with SEN compared to children without SEN (All control variables ³)	0.05	0.11	0.65
School work			
Children with SEN compared to children without SEN (No control variables)	0.60	0.10	0.00
Children with SEN compared to children without SEN (All control variables ³)	0.28	0.09	0.00
Appearance			
Children with SEN compared to children without SEN (No control variables)	-0.06	0.12	0.64
Children with SEN compared to children without SEN (All control variables ³)	-0.21	0.10	0.04
Family			
Children with SEN compared to children without SEN (No control variables)	0.09	0.08	0.26
Children with SEN compared to children without SEN (All control variables ³)	-0.03	0.07	0.72
Friends			
Children with SEN compared to children without SEN (No control variables)	0.25	0.09	0.00
Children with SEN compared to children without SEN (All control variables ³)	0.04	0.07	0.56
Life as a whole			
Children with SEN compared to children without SEN (No control variables)	0.17	0.09	0.06
Children with SEN compared to children without SEN (All control variables ³)	-0.11	0.07	0.12

Odds of being unhappy for children with SEN compared to children without SEN

Wellbeing domain (and model: Logistic regression analysis)	Odds Ratio²	Std. Err.	Sig.
Not happy with school			
Children with SEN compared to children without SEN (No control variables)	2.96	0.69	0.00
Children with SEN compared to children without SEN (All control variables ³)	1.84	0.53	0.04
Not happy with school work			
Children with SEN compared to children without SEN (No control variables)	2.46	0.56	0.00
Children with SEN compared to children without SEN (All control variables ³)	1.24	0.37	0.47
Not happy with appearance			
Children with SEN compared to children without SEN (No control variables)	1.30	0.27	0.20
Children with SEN compared to children without SEN (All control variables ³)	1.09	0.28	0.74
Indifferent / Not happy with family			
Children with SEN compared to children without SEN (No control variables)	1.14	0.30	0.63
Children with SEN compared to children without SEN (All control variables ³)	0.95	0.33	0.88
Indifferent / Not happy with friends			
Children with SEN compared to children without SEN (No control variables)	1.79	0.51	0.04
Children with SEN compared to children without SEN (All control variables ³)	0.95	0.41	0.90
Indifferent / Not happy with life as a whole			
Children with SEN compared to children without SEN (No control variables)	1.51	0.29	0.03
Children with SEN compared to children without SEN (All control variables ³)	0.75	0.22	0.32

Source: Understanding Society – National Pupil Database (linked dataset)

¹ The increase in unhappiness score for children with SEN compared to children without SEN

² An odds ratio greater (less) than one means higher (lower) odds of children with SEN being unhappy

³ See Figure 9 for full list of control variables and Annex D for more detailed regression results

As discussed previously, there are a range of other factors that could drive children's subjective wellbeing. Table 4 illustrates which factors were associated with each of the six subjective wellbeing domains. A shaded cell indicates the factor is associated with an increase in unhappiness. Both the unhappiness score (Sc) and being over the unhappiness threshold (Un) are presented. A blank cell indicates no statistically significant association. More detailed regression results are presented in Annex D.

For brevity, and as a measure reliability, this interpretation focuses only on the factors that appear associated with both the unhappiness score and the unhappiness threshold.

Happiness with school

Factors associated with children unhappy with their school are:

- Working family (not full time)
- Bullied (not physically)
- Hyperactivity/inactivity
- Prosocial problems
- Has drank alcohol

The majority of these factors suggest children that may not enjoy going to school (for example those who experience bullying) and children who may have characteristics not aligned with the education system (for example children with hyperactivity or prosocial problems may also be unhappy with their school).

Happiness with school work

Factors associated with children unhappy with their school work are:

- Mother with poor health
- Hyperactivity/inactivity
- Conduct problems
- Prosocial problems
- Living in rural area

Children with mothers who have poor health may have to spend time caring for their mother or have a mother who can engage less in their school work. These factors are also associated with children who may struggle to get on at school and engage with the education process – for example, children with hyperactivity/inactivity problems may be restless, fidgety and easily distracted in class.

Happiness with appearance

Factors associated with children unhappy with their appearance are:

- Older
- Girls
- Emotional problems
- Peer relationship problems

Being unhappy with the way you look is associated with older secondary-school children, particularly girls. Children with emotional problems may worry a lot and be nervous in new situations, hence may be anxious how their appearance may affect their relationship with their friends.

Happiness with family

Factors associated with children unhappy with their family are:

- Parents with higher education
- A youngest sibling aged 5-10
- Child rarely talks to mother about important issues
- Mother quarrels with child a lot
- Emotional problems
- Conduct problems

Children who have relationship issues with their parents may be more likely to report that they are unhappy with their family. Children with emotional problems may be more likely to worry and be unhappy (this may be a consequence of feeling unhappy with their family). The finding that children from families with higher educated parents are more likely to be unhappy is perhaps unexpected, although it does mirror recent research by Lessof et al (2016) which argued that this may be due to feeling pressure from parents, particularly in more challenging economic times.

Happiness with friends

Factors associated with children unhappy with their friends are:

- Eligible for Free School Meals
- Bullied (not physically)
- Peer relationship problems
- Prosocial problems

Children who receive a Free School Meal can face issues of stigma and subsequent teasing and bullying from peers (The Children's Society, 2015). And children who are bullied may feel negatively about other peers. Children who report peer relationship problems tend to prefer solitary play, have few friends or feel peers do not generally like

them. Children who have prosocial problems can have difficulty socialising – they may not be considerate of other people’s feelings, or offering kindness or help to others.

Happiness with life as a whole

Factors associated with children unhappy with their life as a whole are:

- Girls
- Bullied (not physically)
- Emotional problems
- Conduct problems
- Peer relationship problems
- Prosocial problems

Children unhappy with their ‘life as a whole’ may be reflecting elements of the other wellbeing domains, which arguably fall under this overarching category. These factors are also prevalent when looking across the different domains of wellbeing – those factors most often associated with a number of low wellbeing domains are being a girl, being bullied (particularly non-physical bullying), and having psychological difficulties.

Recent research has replicated the finding that there is a growing gap in happiness between boys and girls, and that girls’ low wellbeing may lead to depression and anxiety (Children’s Society, 2016). The links between bullying and wellbeing are well established – bullying can affect a child’s sense of self-worth, disrupt their education and potentially lead to mental ill-health (Children’s Society, 2016). Recent research by Lessof et al (2016) found young people were experiencing higher levels of ‘psychological distress’ – particularly girls.

The importance of these findings for this study is in emphasising that children with SEN are more likely to have a number of these potential ‘drivers’ of low wellbeing. For example, we saw in Chapter 3 that children with SEN are more likely to be bullied and the next chapter will show that children with SEN are also more likely to have psychological difficulties. It is also likely to be the case that children with SEN and a number of these drivers are at increased risk of low wellbeing (for example, a girl with SEN who has psychological difficulties and is bullied).

Table 4. Factors associated with unhappiness (grey cells¹), Regression analysis

	School		School work		Appear- ance		Family		Friends		Life as a whole	
	Sc ²	Un ³	Sc ²	Un ³	Sc ²	Un ³	Sc ²	Un ³	Sc ²	Un ³	Sc ²	Un ³
Has Special Educational Needs					-ve							
Characteristics of child												
Older												
Girl												
White												
Family background												
Lower household income												
Eligible for Free School Meals												
Working family (not full time)												
High parental education												
Single parent												
Age of youngest child: 5-10												
Number of children: Higher												
Age of mother: Older												
Health of mother: Poor												
Mother dissatisfied with life		-ve						-ve				
Social relationships												
Child rarely talks to mother												
Child rarely talks to father												
Mother rarely discusses children												
Mother quarrels with children												
Child bullied physically												
Child bullied in other ways												
Child psychological wellbeing												
Emotional problems												
Conduct problems												
Hyperactivity problems												
Peer relationship problems												
Prosocial problems						-ve						
Child behaviours												
Has drank alcohol				-ve								
Smokes or has smoked												
High screen time						-ve						
Environmental factors												
Lives in rural area												

¹ '-ve' means the factor has a negative relationship with unhappiness

² Increase in unhappiness score

³ Higher odds of being unhappy (school, school work, appearance) or indifferent/unhappy (Friends, Family, Life as a whole)

Psychological wellbeing of children with Special Educational Needs

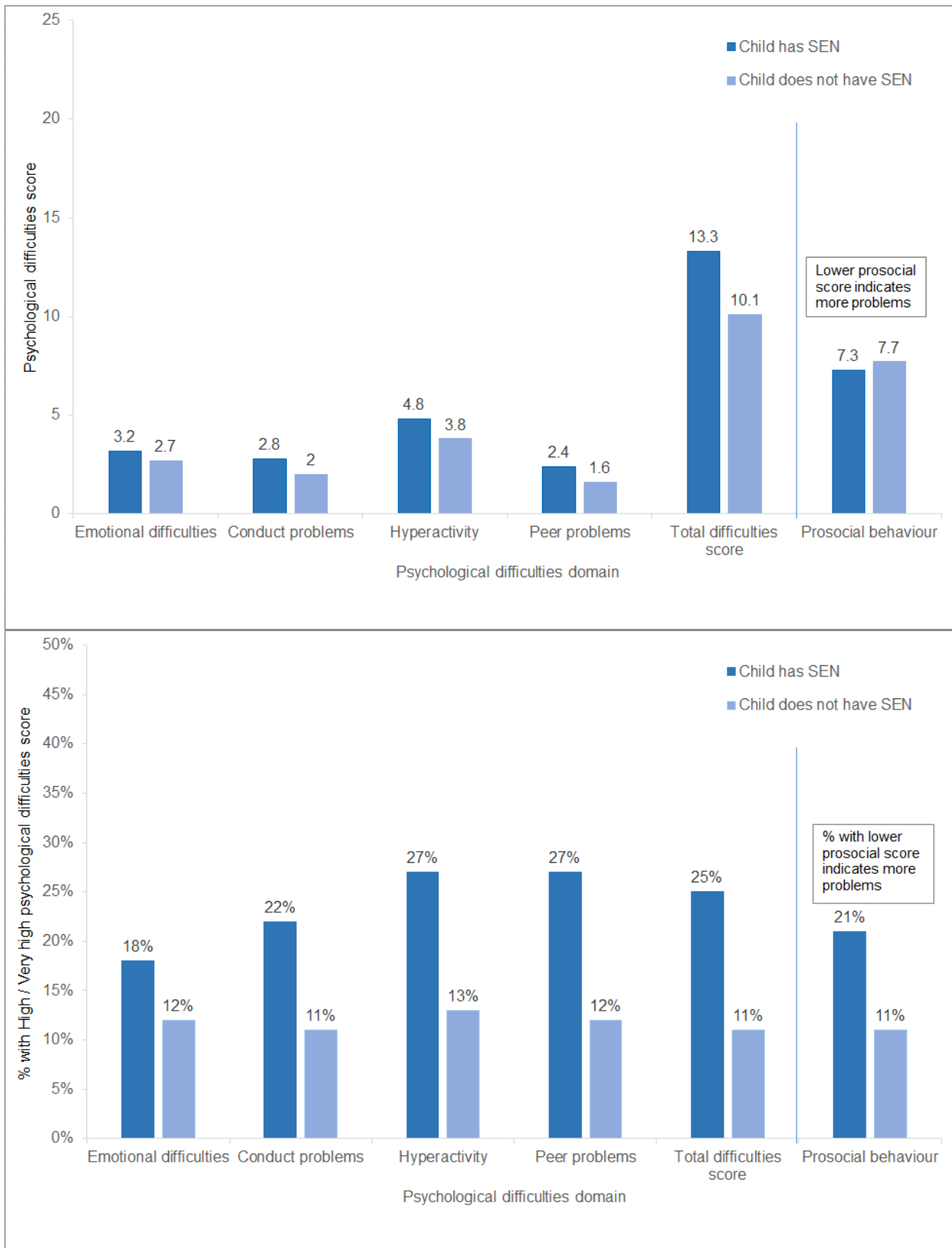
This chapter presents findings on psychological wellbeing, comparing levels of 'psychological difficulties' for children with and without Special Educational Needs. First, average (mean) 'difficulties' scores are presented for each of the four psychological difficulties domains - emotional symptoms, conduct problems, hyperactivity/inattention, and peer relationship problems – and, the total difficulties score, and the prosocial behaviour score. Then the percentage of children that report having 'high or very high' scores ('low or very low' for prosocial behaviour) on each of these six measures is presented.

Overall psychological difficulties

Figure 21 shows that:

- Children with SEN are more likely to have higher average (mean) psychological difficulties score across all domains
- The mean score for children with SEN is in the 'close to average' range for all domains bar 'peer relationship problems' where a mean score of 2.4 is between the 'close to average' and 'slightly raised' range
- When looking at the percentage of children in the 'High' or 'Very high' range, again children with SEN are more likely than children without SEN to be in this range. This is true for all domains with between 18-27 per cent of children with SEN in the 'High' or 'Very high' categories (11-13 per cent of children without SEN).
- For all domains bar emotional difficulties, at least twice as many children with SEN than without SEN are in the 'High' or 'Very high' categories. The gap between children with SEN and children without SEN for emotional problems is still considerable at 6 percentage points

Figure 21. Psychological difficulties of children aged 10-15 by SEN status



Source: Understanding Society – National Pupil Database (linked dataset), 2011-12

Note: White bars indicate no significant difference between children with SEN and children without SEN

Note: Psychological wellbeing scored from 0-10 for each domain (and 0-40 for total difficulties score). See Figure 8 for range meanings.

Again, we adopt two approaches to present children's psychological wellbeing. The average (mean) score for total SDQ, and its separate components, is used to compare levels of children's psychological wellbeing. We also use a classification guided by the distribution of scores in the child population (Goodman and Goodman, 2009). As adopted by the ONS (2015), we use a threshold that identifies children reporting a 'high' or 'very high' total difficulties score (see Figure 8). Around 10 per cent of the total child population are estimated to record 'high' or 'very high' scores and the higher the score means the more risk the child has of mental ill-health. Although it must be noted that the sensitivity of predicting clinical diagnosis is much higher using a multi-informant SDQ, and so the total difficulties score presented here should only be considered an indication of the prevalence of mental ill-health (ONS, 2015).

The results above suggest that children with SEN are more likely than children without SEN to be at risk of a range of psychological difficulties. Children with SEN demonstrate a higher average (mean) psychological difficulties score than children without SEN - and a higher proportion are in the high or very high psychological difficulties range.

However, we know that children with SEN are also more likely to have other characteristics that could be associated with psychological difficulties – so having SEN may not necessarily be a driving factor. As in Chapter 4 we now use regression analysis to explore whether having SEN remains an important factor associated with psychological difficulties when these other characteristics of children and their family are taken into account.

The first half of Table 5 uses multiple linear regression analysis to assess whether SEN status has an impact on the psychological difficulties score when taking these other factors into account (see Figure 9 above for the list of factors used). Analysis is carried out separately for each of the psychological difficulties domains. Statistically significant differences between children with and without SEN are presented in bold text.

As we saw in Figure 21 children with SEN are more likely than children without SEN to have higher difficulties scores. Table 5 includes a regression model with no control variables and so reflects the results presented in Figure 21, where:

- Children with SEN have an emotional problems score 0.53 points higher than children without SEN
- Children with SEN have a conduct difficulties score 0.82 points higher than children without SEN
- Children with SEN have a hyperactivity/inattention score 1.08 points higher than children without SEN
- Children with SEN have a peer relationship problems score 0.86 points higher than children without SEN

- Children with SEN have an overall psychological difficulties score 3.16 points higher than children without SEN
- Children with SEN have a prosocial behaviour score 0.42 points lower than children without SEN (where a lower score indicates more problems)

When taking the other factors into account Table 5 shows that having SEN is still associated with most, but not all, of the different types of psychological difficulties:

- After taking the other factors into account having SEN is associated with a higher difficulties score for conduct problems (0.26 points higher than for children without SEN), hyperactivity/inattention (0.45 higher), peer relationship problems (0.33 higher), and total difficulties score (1.26 higher)
- After taking the other factors into account having SEN is no longer associated with emotional problems nor with prosocial behaviour difficulties scores

The second half of Table 5 shows that having SEN is associated with a greater risk of having high or very high difficulties scores for all but emotional problems and conduct difficulties (although close to statistical significance), even when taking other factors into account.

- The odds of children with SEN having high or very high psychological difficulties is highest for peer relationship problems (2.71) and total difficulties score (2.66)

Table 5. Psychological wellbeing: Regression analysis to isolate impact of having SEN

Increase in psychological difficulties score for children with SEN compared to children without SEN

Difficulties domain (and model: Linear regression analysis)	Coef.¹	Std. Err.	Sig.
Emotional problems			
Children with SEN compared to children without SEN (No control variables)	0.53	0.16	0.00
Children with SEN compared to children without SEN (All control variables ³)	0.21	0.14	0.15
Conduct difficulties			
Children with SEN compared to children without SEN (No control variables)	0.82	0.13	0.00
Children with SEN compared to children without SEN (All control variables ³)	0.26	0.11	0.02
Hyperactivity/Inattention			
Children with SEN compared to children without SEN (No control variables)	1.08	0.18	0.00
Children with SEN compared to children without SEN (All control variables ³)	0.45	0.15	0.00
Peer relationship problems			
Children with SEN compared to children without SEN (No control variables)	0.86	0.15	0.00
Children with SEN compared to children without SEN (All control variables ³)	0.33	0.10	0.00
Total difficulties score			
Children with SEN compared to children without SEN (No control variables)	3.16	0.42	0.00
Children with SEN compared to children without SEN (All control variables ³)	1.26	0.33	0.00
Prosocial behaviour (reduced score means more problems)			
Children with SEN compared to children without SEN (No control variables)	-0.42	0.14	0.00
Children with SEN compared to children without SEN (All control variables ³)	-0.22	0.12	0.08

Odds of high/very high psychological difficulties for children with SEN compared to children without

Difficulties domain (and model: Logistic regression analysis)	Odds Ratio²	Std. Err.	Sig.
Emotional problems			
Children with SEN compared to children without SEN (No control variables)	1.58	0.28	0.01
Children with SEN compared to children without SEN (All control variables ³)	1.37	0.34	0.21
Conduct difficulties			
Children with SEN compared to children without SEN (No control variables)	2.46	0.45	0.00
Children with SEN compared to children without SEN (All control variables ³)	1.52	0.35	0.07
Hyperactivity/Inattention			
Children with SEN compared to children without SEN (No control variables)	2.46	0.42	0.00
Children with SEN compared to children without SEN (All control variables ³)	1.74	0.36	0.01
Peer relationship problems			
Children with SEN compared to children without SEN (No control variables)	2.71	0.44	0.00
Children with SEN compared to children without SEN (All control variables ³)	2.15	0.52	0.00
Total difficulties score			
Children with SEN compared to children without SEN (No control variables)	2.66	0.46	0.00
Children with SEN compared to children without SEN (All control variables ³)	1.85	0.46	0.02
Prosocial behaviour (reduced score means more problems)			
Children with SEN compared to children without SEN (No control variables)	2.17	0.38	0.00
Children with SEN compared to children without SEN (All control variables ³)	1.57	0.36	0.05

Source: Understanding Society – National Pupil Database (linked dataset)

¹ The increase in psychological difficulties score for children with SEN compared to children without SEN

² An odds ratio greater (less) than one means higher (lower) odds of children with SEN having difficulties

³ See Figure 9 for full list of control variables and Annex F for more detailed regression results

As in Chapter 4 we now go on to explore the other factors that can lead to children having psychological difficulties, and discuss these in relation to the characteristics of children with SEN that we revealed earlier. Table 6 illustrates which factors were associated with each of the psychological wellbeing domains. A shaded cell indicates the factor is associated with an increase in psychological difficulties. Both the psychological difficulties score (Sc) and being over the high / very high difficulties threshold (HV) are presented. A blank cell indicates no statistically significant association. More detailed regression results are presented in Annex F.

For brevity, and as a measure of reliability, this interpretation focuses only on the factors that appear associated with both an increase in the difficulties score and an increased risk of being over the difficulties threshold.

Emotional symptoms

Factors associated with children having emotional symptoms are:

- Girls
- Non-physical bullying
- Unhappy or indifferent with life as a whole

Girls and children who are bullied in non-physical ways, so perhaps through verbal or social bullying, are at increased risk of experiencing emotional problems. As are children who are not happy with their life more generally – and it is likely that these feelings are associated with children feeling worried, downhearted or having fears.

Factors associated with children who have conduct problems are:

- Boys
- Mother rarely talks to children about important matters
- Mother often quarrels with children
- Unhappy with school work
- Unhappy or indifferent with family
- Drank alcohol
- Smoked
- High screen time

These factors suggest certain children are at higher risk of conduct problems, including boys and those unhappy with their school work. The findings also point to certain behaviours that may go alongside conduct problems, such as drinking alcohol and smoking, and perhaps certain consequences of these behaviours, such as having fractious relationships at home. We do know that children with SEN are more likely to have some of these factors, including being boys and quarrelling with their mother (see

Chapter 2), suggesting a blend of issues that may result in children with SEN being at increased risk of also having conduct problems.

Hyperactivity/inattention

Factors associated with children having hyperactivity/inattention difficulties are:

- Boys
- Mother with poor health or disability
- Mother often quarrels with children
- Not happy with school
- Not happy with appearance

Children who have hyperactivity/inattention difficulties report being restless, easily distracted, not completing tasks and so on. These children are more likely to also have the factors above.

Peer relationship problems

Factors associated with children who have peer relationship problems are:

- Boys
- Bullied physically
- Bullied in other ways (non-physical)
- Unhappy/indifferent with friends
- Unhappy/indifferent with life as a whole

Children who have peer relationship problems say that they get picked on, feel people do not like them and generally spend their time with fewer friends or on their own. These children tend to be at higher risk of bullying and hence are more likely to feel unhappy or indifferent with their friendship set. Boys are at higher risk of feeling this than girls.

Total psychological difficulties score

Factors associated with children with a higher total psychological difficulties score are:

- Bullied physically
- Bullied in other ways (non-physical)
- Unhappy with schoolwork
- Unhappy with appearance
- Unhappy/indifferent with family
- Unhappy/indifferent with life as a whole

Children with higher scores on the all-encompassing measure of psychological difficulties may be reflecting elements of the composite domains. Being bullied (whether physical or non-physical) and feeling unhappy with certain aspects of their lives are prominent factors here and across a number of the psychological difficulties domains.

Again, it is important to emphasise that children with SEN are more likely to have a number of these potential 'drivers' of psychological difficulties. So as well as SEN being independently linked to a number of the psychological difficulty measures, children with SEN are also more likely (than children without SEN) to have some of these other factors – such as being bullied, feeling unhappy with their school, and having higher unhappiness scores for their school work and their appearance.

Table 6. Factors associated with psychological difficulties (grey cells¹), Regression analysis

	Emotional		Conduct		Hyper		Peer		Total		Prosocial	
	Sc ²	HV ³	Sc ²	HV ³	Sc ²	HV ³	Sc ²	HV ³	Sc ²	HV ³	Sc ²	HV ³
Has Special Educational Needs												
Characteristics of child												
Older			-ve									
Girl			-ve	-ve	-ve	-ve	-ve	-ve			-ve	-ve
White								-ve				
Family background												
Lower household income												
Eligible for Free School Meals												
Working family (not full time)												
High parental education		-ve										
Single parent												-ve
Age of youngest child: 5-10												
Number of children: Higher												
Age of mother: Older												
Health of mother: Poor												
Mother dissatisfied with life												
Social relationships												
Child rarely talks to mother												
Child rarely talks to father												
Mother rarely talks to children												
Mother quarrels with children												
Family rarely eats together												
Child bullied physically												
Child bullied in other ways												
Child subjective wellbeing												
Not happy with school												
Not happy with school work												
Not happy with appearance												
Not happy/indifferent with family												
Not happy/indifferent with friends				-ve								
Not happy/indifferent with life												
Child behaviours												
Has drank alcohol												
Smokes or has smoked												
High screen time												
Environmental factors												
Lives in rural area												

¹ '-ve' means the factor has a negative relationship with psychological difficulties

² Indicates increase in difficulties score (or decrease for prosocial behaviour)

³ Indicates higher odds of high / very high difficulties (low / very low prosocial behaviour)

Overview and conclusions

This report has illustrated the differences in subjective and psychological wellbeing for children with and without SEN. It used data from a unique dataset that combines survey information from children on their wellbeing with administrative data from their school on whether they have SEN or not. Statistical analysis has been used to explore whether differences in wellbeing are likely to be driven by a children's SEN or a range of other individual and family factors.

The findings from this research relate to secondary school children, aged 10-15, who go to school in England. The findings replicate other research that identifies characteristics of secondary-school children associated with having SEN, such as being a boy, being eligible for free school meals, having a parent (mother) with a long-standing illness or disability, or low wellbeing, and being bullied (physically or non-physically).

The picture when looking at children's subjective wellbeing (i.e. unhappiness) and psychological wellbeing (i.e. risk of mental health difficulties) is slightly different, as a summary of the results illustrates.

SEN and subjective wellbeing

Average levels of 'unhappiness'

- In terms of how all secondary-school children, not just children with SEN, think about various aspects of their lives; they are less likely to feel happy with their school work, their school and their appearance, and more likely to feel happy with their family and friends
- Children with SEN have similar levels of unhappiness to children without SEN regarding their appearance, their family and life as a whole, but there were differences when looking at other areas of their lives
- Children with SEN have higher levels of unhappiness than children without SEN on a number of issues. On the 7-point unhappiness scale from happy (1) to unhappy (7) children with SEN were on average:
 - 0.6 points unhappier with their school work (mean score 3.1 compared to 2.5)
 - 0.4 points unhappier with their school (mean score 2.7 compared to 2.3)
 - 0.3 points unhappier with their friends (mean score 1.9 compared to 1.6)
- However, it is only for school work that having SEN is independently associated with an increased unhappiness score (0.3 points higher than for children without SEN, even after controlling for other characteristics of children and their family)

Children who are most 'unhappy'

- Some children, albeit a minority, do show signs of low subjective wellbeing. These children score above an 'unhappiness threshold' on the 7-point unhappiness scale (the threshold is set at over 5 for school, school work, and appearance, and over 4 for family, friends, and life as a whole – a lower threshold is used here, as few children feel unhappy with these aspects of their lives). Again we see that children are most likely to be 'unhappy' with their appearance, their school, and their school work. And relatively few children are indifferent or unhappy with their family and with their friends.
- Again, we see differences between children with SEN and children without SEN. Children with SEN are more likely than children without SEN to be unhappy about:
 - the school they go to (19 per cent compared to 7 per cent),
 - their school work (13 per cent of children with SEN compared to 6 per cent of children without SEN),
 - (unhappy or indifferent about) their friends (8 per cent compared to 4 per cent),
 - (unhappy or indifferent about) life as a whole (17 per cent compared to 11 per cent)
- The biggest differences between children with and without SEN being 'unhappy' are for their views on their school and their school work
- However, after controlling for other factors, having SEN is only independently associated with an increased odds of being 'unhappy' with school
- Factors other than having SEN are also independently associated with low subjective wellbeing. These can vary according to the domain of subjective wellbeing but being a girl, being bullied (whether physical or non-physical) and having higher levels of psychological difficulties are prominent factors across a number of domains.

Table 7. Overview of associations between SEN and wellbeing

	Domain	Increase in overall unhappiness / difficulties score		Odds ratio of being above unhappiness / difficulties threshold	
		Do children with SEN have higher scores than children without SEN? ³	Is having SEN an independent factor? ⁴	Do children with SEN have higher odds than children without SEN? ³	Is having a SEN an independent factor? ⁴
Unhappiness ¹	School	+0.39		+2.96	+1.84
	School work	+0.60	+0.28	+2.46	
	Appearance		-0.21 ⁵		
	Family				
	Friends	+0.25		+1.79	
	Life as a whole			+1.51	
Psychological difficulties ²	Emotional symptoms	+0.53		+1.58	
	Conduct problems	+0.82	+0.11	+2.46	
	Hyperactivity/Inattention	+1.08	+0.15	+2.46	+1.74
	Peer relationship problems	+0.86	+0.10	+2.71	+2.15
	Total difficulties score	+3.16	+0.33	+2.66	+1.85
	Prosocial behaviour ²	-0.42		+2.17	+1.57

¹ Subjective wellbeing scored from 1 (happy) to 7 (unhappy), so higher score means unhappy

² Psychological wellbeing scored from 0-10 for each domain (and 0-40 for total difficulties score), so higher score means more psychological difficulties (apart from prosocial behaviour, where lower score means more difficulties)

³ Not controlling for other individual and family factors

⁴ Controlling for other individual and family factors (see Figure 9)

⁵ This is the only instance that having SEN appears to suggest higher wellbeing

SEN and psychological wellbeing

Average levels of ‘psychological difficulties’

- The SDQ scoring tool is designed so 80 per cent of children are in the lowest risk category (called ‘close to average’) – consequently most children do not show an increased risk of psychological difficulties. Only a minority of children score ‘high’ or ‘very high’ on the SDQ and these children are at most risk of mental health problems.
- Our research shows that children with SEN have higher average psychological difficulties scores across all domains: Emotional difficulties, Conduct problems, Hyperactivity/Inattention, Peer relationship problems, and the Total difficulties score (which aggregates the previous four domains), and the Prosocial behaviour measure
- It is important to note that despite being higher than for children without SEN, the average psychological difficulties score for children with SEN is in the ‘close to

average' range for all domains except Peer relationship problems, where a mean score of 2.4 is between 'close to average' and 'slightly raised'

- On the 10-point psychological difficulties score where 10 indicates more risk of problems, children with SEN had higher average scores than children without SEN:
 - 0.5 points higher for Emotional difficulties (3.2 compared to 2.7) (note that 'high'/'very high' scores are 6.0 and above)
 - 0.8 points higher for Conduct problems (2.8 compared to 2.0) (note that 'high'/'very high' scores are 5.0 and above)
 - 1.1 points higher for Hyperactivity/Inattention (4.8 compared to 3.8) (note that 'high'/'very high' scores are 7.0 and above)
 - 0.9 points higher for Peer relationship problems (2.4 compared to 1.6) (note that 'high'/'very high' scores are 4.0 and above)
- The average total difficulties score (out of 40) was 3.2 points higher for children with SEN than for children without SEN (13.3 compared to 10.1) (note that 'high'/'very high' scores are 18.0 and above)
- The average Prosocial behaviour score (out of 10) was 0.4 points lower for children with SEN than for children without SEN (7.3 compared to 7.7 - for this measure a lower score indicates more problems and note that 'low'/'very low' scores are 5.0 and below)
- When taking other characteristics of the children and their family into account the 'impact' of having SEN was reduced, but having SEN was still associated with a number of the psychological difficulties domains. Children with SEN had a higher psychological difficulties score for the following domains:
 - 0.1 points higher for Conduct problems
 - 0.2 points higher for Hyperactivity/Inattention
 - 0.1 points higher for Peer relationship problems
 - 0.3 points higher for the Total difficulties score
- The difference between the scores of children with and without SEN was lower than when these factors were not accounted for, suggesting having SEN has a statistically significant but perhaps relatively small independent association with psychological difficulties (and that the difference between children with and without SEN is driven by other characteristics of children with SEN).

Children most at risk of mental health problems

- Higher scores can increase the risk of mental health problems, and here we look at children that have 'high' or 'very high' psychological difficulties scores. Again we see that children with SEN are more likely than children without SEN to be above these thresholds for all domains of psychological wellbeing.

- Between 18 and 27 per cent of children with SEN have ‘high’ or ‘very high’ psychological difficulties scores (depending on the domain) compared to between 11 and 13 per cent of children without SEN
- Children with SEN are most likely to have ‘high’ or ‘very high’ psychological difficulties scores for:
 - Hyperactivity/Inattention (27 per cent), and
 - Peer relationship problems (27 per cent)
- Having SEN is independently associated with an increased likelihood of having ‘high’ or ‘very high’ scores for a number of domains: Peer relationship problems, Hyperactivity/Inattention, Total difficulties score, and Prosocial behaviour
 - Again, the strongest independent association was with Peer relationship problems where children with SEN were more likely to have ‘high’ or ‘very high’ scores
- Factors other than having SEN were also independently associated with psychological difficulties. These varied according to the domain of psychological wellbeing, but being bullied (whether physical or non-physical) and feeling unhappy with certain aspects of their lives are prominent factors across a number of domains.

Conclusions

This report has provided important new evidence on the links between secondary school children having SEN and their subjective and psychological wellbeing. The findings show that children with SEN tend to have lower levels of subjective wellbeing than children without SEN when talking about their school and their school work – and also with their friends (an important element of school life). Higher proportions of children with SEN are also deemed to be ‘unhappy’ with these aspects of their lives – for example, almost one in five (19 per cent) children with SEN report being unhappy with their school, compared to just 7 per cent of children without SEN. Yet children with SEN show relatively little difference to those without SEN when talking about their family and their appearance.

Clearly there is evidence that how children think about their wellbeing in relation to school is an issue for a number of children with SEN. Given that having SEN means a child requires additional support with their educational needs, it is perhaps unsurprising that the biggest difference between children with SEN and without SEN is for their views on their school work. This difference remained when taking into account other factors that could affect how children feel about their school work.

The link between SEN and wellbeing appears to be even stronger for psychological wellbeing. Children with SEN score higher than children without SEN across a range of psychological wellbeing domains. Between 18 and 27 per cent of children with SEN are in the ‘high’ or ‘very high’ psychological difficulties range, significantly higher than

children without SEN (between 11 and 13 per cent). However, it is important to note that aspects of psychological wellbeing may be a reason why children are diagnosed with SEN in the first place (more on this below).

The analysis has suggested a potentially complex interaction between SEN and a number of other factors that can impact on children's wellbeing, including their gender, family background, peer relationships (particularly bullying) and engagement with education. We know from this and other research that children with SEN are disproportionately more likely to be boys, from more disadvantaged families, and to be bullied. Being bullied - both physical and non-physical bullying – is a consistent predictor of low wellbeing and we also know that children's interaction with school, family members, and other children can have a strong influence on their wellbeing.

The social background of children can impact on their wellbeing. Once this has been controlled for, children with SEN may experience their school and family life in a way that is distinct from those without SEN, for instance they may be at greater risk of being bullied, or being excluded from school - factors which themselves can reduce wellbeing and lead to disadvantage in later life. More generally, the distinct experiences of children with SEN inside and outside the educational system raise pressing issues for policy and research.

Limitations and further research

As with any research study, there are limitations of this study that should be recognised. Although much of what this study has achieved has only been possible by utilising a unique dataset that combines a large-scale social survey (Understanding Society) with administrative data from schools (National Pupil Database), the number of children with SEN in the dataset is relatively small. Ideally we would try to replicate the analysis on a larger dataset, or even other similarly-sized datasets¹⁰. However, the number of children on the linked dataset is proportional to what we would expect to find in the population suggesting that the sample of children used for this research is a good representation of the population of secondary-school children with SEN in England. It is important to say, however, that the findings from this study should not be generalised to the whole SEN population, including younger children in primary schools, as we only have evidence from secondary school children.

It is important to note that this research groups together children with any type of SEN (to compare them, more generally, to children without SEN) and hence the findings may be masking distinct wellbeing experiences of children with different types of SEN. Unfortunately the linked USoc-NPD dataset does not allow us to identify the specific SEN

¹⁰ On that note, a new sweep of matched Understanding Society – National Pupil Database data will soon be available.

that children have, and in any case the small sample size would not allow for such intricate analysis. Further research is welcomed to attempt to unpick the relationship between different types of SEN and the various aspects of wellbeing. This may require a question about children's SEN being added to other existing large-scale surveys – although it is acknowledged that parents may not know, or want to divulge, if their child has a SEN – or matching the NPD to other relevant survey data.

Furthermore, it is important to acknowledge the potential overlap between the way special educational needs are identified and how wellbeing, especially psychological wellbeing, is measured. As already discussed, special educational needs cover a wide range of conditions, including social, emotional and mental health needs (SEMH) - in January 2016, 18.5% of children with SEN in secondary schools had a primary type of need that was 'social, emotional and mental health needs' (DfE, 2016b). Characteristics of children with SEN with social, emotional and mental health needs include anxiety, temper tantrums, and antisocial behaviour. These are also items included in the measures of psychological wellbeing used in this research: 'I worry a lot' (Emotional problems), 'I get very angry' (Conduct problems), and 'I am usually on my own' (Peer relationship problems). Hence, there is the possibility of tautology where a psychological difficulty can lead to both a SEN diagnosis and a measure, say, of Emotional difficulties. However, the measures are far from a perfect overlap and there is still value in understanding how many children with SEN record such psychological difficulties (albeit being able to identify which types of need children with SEN have would help us to understand this relationship better).

Finally, this study has looked only at children's wellbeing at one point in time. A child's wellbeing is likely to change over time and although there is very little available data that records children's wellbeing over a sustained period, surveys such as USoc track the same children at annual intervals. Hence, further research could utilise the longitudinal nature of the survey to explore associations between SEN and repeated incidents of wellbeing.

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Annex A. Data linkage form



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return to Brentwood
Consent Form D

Adding information from administrative education records - children (4-15 yrs)

Please read this form and sign below if you give your permission for us to add information from education records to your child(ren)'s survey responses. You can withdraw your permission at any time in the future.

I have received a leaflet explaining what education data may be added to the survey and how it would be used. I have had the opportunity to ask questions.

EDUCATION DATA (children aged 4-15 only)

I authorise the English Department for Children, Schools and Families, the Welsh Department for Children, Education, Lifelong Learning, and Skills, the Scottish Government Education Directorate, or the Department of Education / Education and Skills Authority in Northern Ireland to disclose to the organisation responsible for this survey information from my child's educational records.

Please place a tick in the boxes to indicate that you give permission

	First Name	Last Name	P.No	D.O.B dd/mm/yyyy	YES	NO
Child 1				/ /		
Child 2				/ /		
Child 3				/ /		
Child 4				/ /		
Child 5				/ /		
Child 6				/ /		

If you give permission for us to collect any of this information please sign below. Your permission will stay in place unless you write to us to say you want it removed. This is detailed in the information leaflet. We will remind you of the permissions you have given periodically. You can contact the research team on, **Freephone 0800 252 853** or by writing to **Freepost RRXX-KEKJ-JGKS, Understanding Society, University of Essex, Wivenhoe Park, Colchester, CO4 3SQ**

Sign Date
Print name

Thank-you!

Point.No	Address	HH.No	P.No	ChkL
<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Level 3: Respondent Confidential

NatCen, 101-135 Kings Road, Brentwood, Essex CM14 4LX: P2822: Understanding Society Unit: W1

Source: [NatCen \(2008\)](#)

Annex B. Scoring symptom scores on the SDQ for 4-17 year olds

	Not True	Somewhat True	Certainly True
Emotional problems scale			
ITEM 3: Often complains of headaches... <i>(I get a lot of headaches...)</i>	0	1	2
ITEM 8: Many worries... <i>(I worry a lot)</i>	0	1	2
ITEM 13: Often unhappy, downhearted... <i>(I am often unhappy...)</i>	0	1	2
ITEM 16: Nervous or clingy in new situations... <i>(I am nervous in new situations...)</i>	0	1	2
ITEM 24: Many fears, easily scared <i>(I have many fears...)</i>	0	1	2
Conduct problems Scale			
ITEM 5: Often has temper tantrums or hot tempers <i>(I get very angry)</i>	0	1	2
ITEM 7: Generally obedient... <i>(I usually do as I am told)</i>	2	1	0
ITEM 12: Often fights with other children... <i>(I fight a lot)</i>	0	1	2
ITEM 18: Often lies or cheats <i>(I am often accused of lying or cheating)</i>	0	1	2
ITEM 22: Steals from home, school or elsewhere <i>(I take things that are not mine)</i>	0	1	2
Hyperactivity scale			
ITEM 2: Restless, overactive... <i>(I am restless...)</i>	0	1	2
ITEM 10: Constantly fidgeting or squirming <i>(I am constantly fidgeting...)</i>	0	1	2
ITEM 15: Easily distracted, concentration wanders <i>(I am easily distracted)</i>	0	1	2
ITEM 21: Thinks things out before acting <i>(I think before I do things)</i>	2	1	0
ITEM 25: Sees tasks through to the end... <i>(I finish the work I am doing)</i>	2	1	0
Peer problems scale			
ITEM 6: Rather solitary, tends to play alone <i>(I am usually on my own)</i>	0	1	2
ITEM 11: Has at least one good friend <i>(I have one good friend or more)</i>	2	1	0
ITEM 14: Generally liked by other children <i>(Other people my age generally like me)</i>	2	1	0
ITEM 19: Picked on or bullied by other children... <i>(Other children or young people pick on me)</i>	0	1	2
ITEM 23: Gets on better with adults than with other children <i>(I get on better with adults than with people my age)</i>	0	1	2
Prosocial scale			
ITEM 1: Considerate of other people's feelings <i>(I try to be nice to other people)</i>	0	1	2
ITEM 4: Shares readily with other children... <i>(I usually share with others)</i>	0	1	2
ITEM 9: Helpful if someone is hurt... <i>(I am helpful if someone is hurt...)</i>	0	1	2
ITEM 17: Kind to younger children <i>(I am kind to younger children)</i>	0	1	2
ITEM 20: Often volunteers to help others... <i>(I often volunteer to help others)</i>	0	1	2

Source: EHCAP (2014)

Annex C. Subjective wellbeing (unhappiness score) by key characteristics of children

Table 8. Subjective wellbeing (unhappiness score) by SEN status

Domain	Measure	Child has a SEN	Child does not have a SEN	All children
School	Mean score	2.7	2.3	2.4
	% Not happy (5-7)	19%	7%	9%
	% Indifferent (4)	9%	9%	9%
	% Happy (1-3)	72%	83%	81%
School work	Mean score	3.1	2.5	2.6
	% Not happy (5-7)	13%	6%	7%
	% Indifferent (4)	20%	10%	12%
	% Happy (1-3)	67%	84%	81%
Appearance	Mean score	2.8	2.8	2.8
	% Not happy (5-7)	15%	12%	13%
	% Indifferent (4)	14%	16%	15%
	% Happy (1-3)	70%	72%	72%
Family	Mean score	1.7	1.6	1.6
	% Not happy / Indifferent (4-7)	7%	6%	6%
	% Indifferent	--	--	--
	% Happy (1-3)	93%	94%	94%
Friends	Mean score	1.9	1.6	1.7
	% Not happy / Indifferent (4-7)	8%	4%	5%
	% Indifferent	--	--	--
	% Happy (1-3)	92%	96%	95%
Life as a whole	Mean score	2.3	2.1	2.1
	% Not happy / Indifferent (4-7)	17%	11%	12%
	% Indifferent	--	--	--
	% Happy (1-3)	83%	89%	88%

Source: Understanding Society – National Pupil Database (linked dataset)

Notes: Subjective wellbeing scored from 1 (happy) to 7 (unhappy), so higher score means less happy
 Bold text indicates a statistically significant difference ($p < 0.05$) between children with SEN and children without SEN

Table 9. Subjective wellbeing (unhappiness score) by ethnic minority status

Domain	Measure	White	Ethnic minority	All children
School	Mean score	2.4	2.4	2.4
	% Not happy (5-7)	9%	9%	9%
	% Indifferent (4)	11%	9%	9%
	% Happy (1-3)	80%	82%	81%
School work	Mean score	2.4	2.6	2.6
	% Not happy (5-7)	6%	8%	7%
	% Indifferent (4)	9%	12%	12%
	% Happy (1-3)	85%	80%	81%
Appearance	Mean score	2.5	2.9	2.8
	% Not happy (5-7)	11%	13%	13%
	% Indifferent (4)	12%	16%	15%
	% Happy (1-3)	78%	71%	72%
Family	Mean score	1.7	1.6	1.6
	% Not happy / Indifferent (4-7)	7%	6%	6%
	% Indifferent	--	--	--
	% Happy (1-3)	92%	94%	94%
Friends	Mean score	1.7	1.7	1.7
	% Not happy / Indifferent (4-7)	4%	5%	5%
	% Indifferent	--	--	--
	% Happy (1-3)	96%	95%	95%
Life as a whole	Mean score	2.1	2.1	2.1
	% Not happy / Indifferent (4-7)	13%	12%	12%
	% Indifferent	--	--	--
	% Happy (1-3)	87%	88%	88%

Source: Understanding Society – National Pupil Database (linked dataset)

Notes: Subjective wellbeing scored from 1 (happy) to 7 (unhappy), so higher score means less happy
 Bold text indicates a statistically significant difference ($p < 0.05$) between white children and ethnic minority children

Table 10. Subjective wellbeing (unhappiness score) by first language

Domain	Measure	Not English	English	All children
School	Mean score	2.3	2.4	2.4
	% Not happy (5-7)	7%	10%	9%
	% Indifferent (4)	11%	9%	9%
	% Happy (1-3)	82%	81%	81%
School work	Mean score	2.2	2.6	2.6
	% Not happy (5-7)	12%	20%	7%
	% Indifferent (4)	--	--	12%
	% Happy (1-3)	88%	80%	81%
Appearance	Mean score	2.3	2.9	2.8
	% Not happy (5-7)	8%	13%	13%
	% Indifferent (4)	10%	16%	15%
	% Happy (1-3)	82%	71%	72%
Family	Mean score	1.5	1.6	1.6
	% Not happy / Indifferent (4-7)	6%	6%	6%
	% Indifferent	--	--	--
	% Happy (1-3)	94%	94%	94%
Friends	Mean score	1.7	1.7	1.7
	% Not happy / Indifferent (4-7)	7%	5%	5%
	% Indifferent	--	--	--
	% Happy (1-3)	93%	95%	95%
Life as a whole	Mean score	2.0	2.1	2.1
	% Not happy / Indifferent (4-7)	13%	12%	12%
	% Indifferent	--	--	--
	% Happy (1-3)	87%	88%	88%

Source: Understanding Society – National Pupil Database (linked dataset)

Notes: Subjective wellbeing scored from 1 (happy) to 7 (unhappy), so higher score means less happy
 Bold text indicates a statistically significant difference (p<0.05) between children whose first language is English and those whose it is not

Table 11. Subjective wellbeing (unhappiness score) by Free School Meal (FSM) eligibility

Domain	Measure	Eligible for FSM	Not eligible for FSM	All children
School	Mean score	2.7	2.3	2.4
	% Not happy (5-7)	19%	8%	9%
	% Indifferent (4)	8%	9%	9%
	% Happy (1-3)	73%	83%	81%
School work	Mean score	2.8	2.5	2.6
	% Not happy (5-7)	12%	7%	7%
	% Indifferent (4)	15%	11%	12%
	% Happy (1-3)	73%	82%	81%
Appearance	Mean score	2.6	2.8	2.8
	% Not happy (5-7)	12%	13%	13%
	% Indifferent (4)	13%	16%	15%
	% Happy (1-3)	75%	71%	72%
Family	Mean score	1.7	1.6	1.6
	% Not happy / Indifferent (4-7)	8%	6%	6%
	% Indifferent	--	--	--
	% Happy (1-3)	92%	94%	94%
Friends	Mean score	1.8	1.6	1.7
	% Not happy / Indifferent (4-7)	9%	4%	5%
	% Indifferent	--	--	--
	% Happy (1-3)	91%	96%	95%
Life as a whole	Mean score	2.3	2.1	2.1
	% Not happy / Indifferent (4-7)	17%	11%	12%
	% Indifferent	--	--	--
	% Happy (1-3)	83%	88%	88%

Source: Understanding Society – National Pupil Database (linked dataset)

Notes: Subjective wellbeing scored from 1 (happy) to 7 (unhappy), so higher score means less happy

Bold text indicates a statistically significant difference ($p < 0.05$) between children eligible for FSM and those not FSM

Annex D. Modelling subjective wellbeing: Regression analysis

Two types of regression analysis were used to explore the association between SEN status and wellbeing.

- i) Multiple linear regression analysis, using unhappiness score as the dependent variable
- ii) Logistic regression analysis, using a binary dependent variable that categorises unhappiness score into 'unhappy' (score 5-7=1) and 'happy / indifferent' (score 1-4=0) for the wellbeing domains: School, School work and Appearance. For the wellbeing domains 'Family', 'Friends', and 'Life as a whole', a different binary dependent variable is used that categorises unhappiness score into 'unhappy / indifferent' (score 4-7=1) and 'happy' (score 1-3=0).

The regression results are presented in two stages:

- a) Subjective wellbeing regressed on SEN status to show the association when no other factors are taken into account
- b) Subjective wellbeing regressed on SEN status taking account other factors of children and their family. Only the factors significantly associated with wellbeing are presented for brevity.

Note that constants are not reported in the tables for reasons of data anonymity.

The full set of explanatory factors (independent variables) used in the modelling are listed in Figure 9 (categories of these factors are used in the analysis in Chapter 3).

Table 12. Unhappiness with school score: Linear regression

	Coef.	Std. Err.	Sig.
A) Special Educational Needs status of child (ref: No SEN)			
Child has Special Educational Needs	0.39	0.13	0.00
B) Special Educational Needs status of child (ref: No SEN)			
Child has Special Educational Needs	0.05	0.11	0.65
Age of child (ref: 13)			
10	-0.39	0.14	0.00
11	-0.23	0.13	0.07
12	0.12	0.12	0.32
14	0.25	0.13	0.05
15	0.17	0.11	0.14
Parental work status (ref: All in work)			
No one in work	-0.40	0.18	0.03
Working but less than half	0.25	0.20	0.21
Half in work	-0.14	0.11	0.22
Working more than half, less than all	0.14	0.11	0.20
Whether child has drunk alcohol (ref: No)			
Yes	0.23	0.08	0.00
How often child is bullied (not physically) at school (ref: Never)			
Not much (1-3 times in the last 6 months)	0.22	0.09	0.02
Quite a lot (more than 4 times in the last week)	0.48	0.18	0.01
A lot (a few times every week)	0.73	0.36	0.04
Emotional difficulties (ref: Close to average / slightly raised)			
High/Very high	0.27	0.12	0.03
Hyperactivity difficulties (ref: Close to average / slightly raised)			
High/Very high	0.40	0.12	0.00
Prosocial (ref: Close to average / slightly lowered)			
Low/Very low	0.52	0.12	0.00

Table 13. Unhappiness with school work score: Linear regression

	Coef.	Std. Err.	Sig.
A) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	0.60	0.10	0.00
B) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	0.28	0.09	0.00
Rurality of residence(Ref: Urban)			
Rural area	0.28	0.09	0.00
Health of mother(Ref: No illness or disability)			
Mother has illness or disability	0.21	0.08	0.01
How often mother talks about important matters with child (Ref: Most days)			
More than once a week	0.06	0.08	0.49
Less than once a week	0.38	0.12	0.00
Hardly ever	0.08	0.19	0.69
How often child talks to mother about important things (Ref: Hardly ever)			
Most days	-0.30	0.12	0.01
More than once a week	-0.04	0.12	0.71
Less than once a week	-0.15	0.11	0.19
Don t have father	0.82	0.31	0.01
How often child is physically bullied at school (Ref: Never)			
Not much (1-3 times in the last 6 months)	0.23	0.11	0.04
Quite a lot (more than 4 times in the last week)	0.16	0.24	0.51
A lot (a few times every week)	0.60	0.27	0.03
Conduct difficulties (Ref: Close to average / Slightly higher)			
High/Very high	0.41	0.12	0.00
Hyperactivity difficulties (Ref: Close to average / Slightly higher)			
High/Very high	0.45	0.10	0.00
Prosocial (Ref: Close to average / Slightly lower)			
Low/Very low	0.32	0.10	0.00

Table 14. Unhappiness with appearance score: Linear regression

	Coef.	Std. Err.	Sig.	
A) Special Educational Needs status of child (Ref: No SEN)				0.64
Child has Special Educational Needs	-0.06	0.12	0.64	
B) Special Educational Needs status of child (Ref: No SEN)				0.04
Child has Special Educational Needs	-0.21	0.10	0.04	
Sex of child (Ref: Girl)				0.00
Boy	-0.55	0.08	0.00	
Age of child (Ref: 13)				0.00
10	-0.73	0.13	0.00	
11	-0.43	0.12	0.00	
12	0.09	0.12	0.43	
14	0.12	0.12	0.31	
15	0.03	0.12	0.81	
Ethnic group of child (Ref: White)				0.00
Ethnic minority	-0.36	0.11	0.00	
Number of children in family (Ref: 2)				0.02
1	0.17	0.11	0.11	
3	0.29	0.11	0.01	
4 or more	0.12	0.17	0.47	
How often child talks to mother about important things (Ref: Hardly ever)				0.00
Most days	-0.27	0.13	0.04	
More than once a week	-0.23	0.12	0.06	
Less than once a week	-0.07	0.13	0.56	
Don t have mother	-1.66	0.36	0.00	
How often child talks to father about important things (Ref: Hardly ever)				0.00
Most days	-0.41	0.13	0.00	
More than once a week	-0.03	0.12	0.81	
Less than once a week	0.08	0.11	0.47	
Don t have father	-0.15	0.16	0.36	
How often child is physically bullied at school (Ref: Never)				0.04
Not much (1-3 times in the last 6 months)	0.32	0.12	0.01	
Quite a lot (more than 4 times in the last week)	-0.04	0.23	0.88	
A lot (a few times every week)	0.44	0.38	0.25	
How often child is bullied (not physically) at school (Ref: Never)				0.00
Not much (1-3 times in the last 6 months)	0.33	0.10	0.00	
Quite a lot (more than 4 times in the last week)	0.39	0.18	0.03	
A lot (a few times every week)	0.73	0.32	0.02	
Emotional difficulties (Ref: Close to average / Slightly higher)				0.00
High/Very high	0.75	0.13	0.00	
Peer relationship difficulties (Ref: Close to average / Slightly higher)				0.00
High/Very high	0.42	0.13	0.00	
Prosocial (Ref: Close to average / Slightly lower)				0.00
Low/Very low	0.19	0.11	0.09	

Table 15. Unhappiness with family score: Linear regression

	Coef.	Std. Err.	Sig.	
A) Special Educational Needs status of child (Ref: No SEN)				0.26
Child has Special Educational Needs	0.09	0.08	0.26	
B) Special Educational Needs status of child (Ref: No SEN)				0.72
Child has Special Educational Needs	-0.03	0.07	0.72	
Age of child (Ref: 13)				0.00
10	-0.29	0.09	0.00	
11	-0.20	0.08	0.01	
12	-0.07	0.09	0.45	
14	0.07	0.09	0.40	
15	0.09	0.09	0.30	
Family type (Ref: Couple)				0.03
Single parent family	0.16	0.07	0.03	
Number of children in family (Ref: 2)				0.00
1	0.06	0.07	0.34	
3	0.31	0.08	0.00	
4 or more	0.13	0.11	0.22	
Age of youngest child in family (5-10)				0.00
0-4 years	-0.28	0.08	0.00	
11-15 years	-0.08	0.07	0.21	
Highest parental qualification (Ref: Degree)				0.00
Other higher degree	-0.23	0.07	0.00	
A-level etc.	-0.17	0.07	0.01	
GCSE etc.	-0.24	0.07	0.00	
Other qualification	-0.10	0.12	0.41	
No qualification	-0.46	0.13	0.00	
How often mother quarrels with child (Ref: Most days)				0.00
More than once a week	-0.10	0.07	0.17	
Less than once a week	-0.19	0.07	0.01	
Hardly ever	-0.21	0.07	0.00	
How often child talks to mother about important things (Ref: Hardly ever)				0.00
Most days	-0.51	0.09	0.00	
More than once a week	-0.37	0.10	0.00	
Less than once a week	-0.27	0.10	0.01	
Don t have father	-0.80	0.24	0.00	
How often child is bullied (not physically) at school (Ref: Never)				0.00
Not much (1-3 times in the last 6 months)	0.21	0.07	0.00	
Quite a lot (more than 4 times in the last week)	0.24	0.12	0.04	
A lot (a few times every week)	-0.22	0.16	0.16	
Emotional difficulties (Ref: Close to average / Slightly higher)				0.00
High/Very high	0.30	0.09	0.00	
Conduct difficulties (Ref: Close to average / Slightly higher)				0.00
High/Very high	0.42	0.10	0.00	
Prosocial (Ref: Close to average / Slightly lower)				0.00
Low/Very low	0.38	0.08	0.00	

Table 16. Unhappiness with friends score: Linear regression

	Coef.	Std. Err.	Sig.	
A) Special Educational Needs status of child (Ref: No SEN)				0.00
Child has Special Educational Needs	0.25	0.09	0.00	
B) Special Educational Needs status of child (Ref: No SEN)				0.56
Child has Special Educational Needs	0.04	0.07	0.56	
Free School Meal eligibility (Ref: Not eligible)				0.04
Eligible for FSM	0.17	0.08	0.04	
How often child is bullied (not physically) at school (Ref: Never)				0.00
Not much (1-3 times in the last 6 months)	0.20	0.07	0.00	
Quite a lot (more than 4 times in the last week)	0.34	0.12	0.01	
A lot (a few times every week)	0.40	0.20	0.04	
Emotional difficulties (Ref: Close to average / Slightly higher)				0.00
High/Very high	0.28	0.09	0.00	
Peer relationship difficulties (Ref: Close to average / Slightly higher)				0.00
High/Very high	0.63	0.10	0.00	
Prosocial (Ref: Close to average / Slightly lower)				0.00
Low/Very low	0.31	0.08	0.00	

Table 17. Unhappiness with life as a whole score: Linear regression

	Coef.	Std. Err.	Sig.
A) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	0.17	0.09	0.06
B) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	-0.11	0.07	0.12
Sex of child (Ref: Girl)			
Boy	-0.22	0.06	0.00
Age of child (Ref: 13)			
10	-0.20	0.10	0.05
11	-0.16	0.09	0.10
12	-0.05	0.09	0.58
14	0.13	0.10	0.19
15	-0.09	0.09	0.31
Number of children in family (Ref: 2)			
1	0.06	0.08	0.49
3	0.27	0.08	0.00
4 or more	0.03	0.12	0.79
How often mother quarrels with child (Ref: Most days)			
More than once a week	-0.06	0.08	0.43
Less than once a week	-0.17	0.08	0.02
Hardly ever	-0.18	0.08	0.03
How often child talks to father about important things (Ref: Hardly ever)			
Most days	-0.35	0.09	0.00
More than once a week	-0.19	0.09	0.04
Less than once a week	-0.12	0.08	0.11
Don't have father	-0.04	0.13	0.75
How often child is physically bullied at school (Ref: Never)			
Not much (1-3 times in the last 6 months)	0.22	0.11	0.04
Quite a lot (more than 4 times in the last week)	0.33	0.18	0.07
A lot (a few times every week)	0.72	0.26	0.01
How often child is bullied (not physically) at school (Ref: Never)			
Not much (1-3 times in the last 6 months)	0.26	0.08	0.00
Quite a lot (more than 4 times in the last week)	0.13	0.13	0.31
A lot (a few times every week)	0.17	0.23	0.46
Emotional difficulties (Ref: Low/Very low)			
High/Very high	0.63	0.10	0.00
Conduct difficulties (Ref: Close to average / Slightly higher)			
High/Very high	0.45	0.11	0.00
Peer relationship difficulties (Ref: Close to average / Slightly higher)			
High/Very high	0.45	0.10	0.00
Prosocial (Ref: Close to average / Slightly lower)			
Low/Very low	0.32	0.09	0.00

Table 18. Not happy with school: Logistic regression

	Odds Ratio	Std. Err.	Sig	
A) Special Educational Needs status of child (Ref: No SEN)				
Child has Special Educational Needs	2.96	0.69	0.00	0.00
B) Special Educational Needs status of child (Ref: No SEN)				
Child has Special Educational Needs	1.84	0.53	0.04	0.04
Free School Meal eligibility (Ref: Not eligible)				
Eligible for FSM	2.79	1.12	0.01	0.01
Parental work status (Ref: Full time)				
No one in work	0.69	0.35	0.47	0.02
Working but less than half	3.64	1.94	0.02	
Half in work	1.29	0.43	0.44	
Working more than half, less than all	2.20	0.75	0.02	
Life satisfaction of mother (Ref: Mostly/Completely satisfied)				
Somewhat satisfied / Neither / Somewhat dissatisfied	0.52	0.16	0.03	0.03
Mostly/Completely dissatisfied	1.00	0.39	1.00	
Whether child has drunk alcohol (Ref: No)				
Yes	2.04	0.50	0.00	0.00
How often mother quarrels with child (Ref: Most days)				
More than once a week	0.47	0.18	0.05	0.00
Less than once a week	0.92	0.31	0.80	
Hardly ever	0.85	0.27	0.61	
How often child is bullied (not physically) at school (Ref: Never)				
Not much (1-3 times in the last 6 months)	1.47	0.46	0.22	0.02
Quite a lot (more than 4 times in the last week)	3.14	1.45	0.01	
A lot (a few times every week)	4.47	3.02	0.03	
Hyperactivity difficulties (Ref: Close to average / Slightly higher)				
High/Very high	2.91	0.87	0.00	0.00
Prosocial(Ref: Close to average / Slightly lower)				
Low/Very low	2.35	0.70	0.00	0.00

Table 19. Not happy with school work: Logistic regression

	Odds Ratio	Std. Err.	Sig
A) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	2.46	0.56	0.00
B) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	1.24	0.37	0.47
Rurality of residence (Ref: Urban)			
Rural area	2.84	0.94	0.00
Health of mother (Ref: No illness or disability)			
Mother has illness or disability	2.18	0.59	0.00
Whether child has drunk alcohol (Ref: No)			
Yes	0.92	0.27	0.78
How often mother quarrels with child (Ref: Most days)			
More than once a week	0.41	0.15	0.02
Less than once a week	0.70	0.29	0.40
Hardly ever	1.51	0.53	0.23
Emotional difficulties (Ref: Close to average / slightly higher)			
High/Very high	1.98	0.64	0.03
Conduct difficulties (Ref: Close to average / slightly higher)			
High/Very high	3.27	1.09	0.00
Hyperactivity difficulties (Ref: Close to average / slightly higher)			
High/Very high	2.04	0.65	0.03
Prosocial (Ref: Close to average / slightly lower)			
Low/Very low	2.07	0.59	0.01

Table 20. Not happy with appearance: Logistic regression

	Odds Ratio	Std. Err.	Sig
A) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	1.30	0.27	0.20
B) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	1.09	0.28	0.74
Sex of child (Ref: Girl)			
Boy	0.23	0.05	0.00
Age of child (Ref: 13)			
10	0.21	0.10	0.00
11	0.41	0.17	0.03
12	1.43	0.47	0.28
14	1.83	0.61	0.07
15	1.45	0.49	0.28
Parental work status (Ref: Full time)			
No one in work	1.62	0.78	0.31
Working but less than half	5.44	2.64	0.00
Half in work	1.29	0.37	0.38
Working more than half, less than all	1.51	0.47	0.18
Highest parental qualification (Ref: Degree)			
Other higher degree	0.49	0.16	0.03
A-level etc.	1.38	0.41	0.27
GCSE etc.	1.44	0.41	0.20
Other qualification	0.75	0.42	0.61
No qualification	0.42	0.27	0.18
Total screen time of child (Ref: Least)			
Quartile with 2nd least screen time	0.45	0.13	0.01
Quartile with 2nd most screen time	0.91	0.31	0.78
Quartile with most screen time	0.46	0.16	0.02
How often mother talks about important matters with child (Ref: Most days)			
More than once a week	0.97	0.23	0.88
Less than once a week	1.08	0.39	0.84
Hardly ever	2.93	1.42	0.03
How often mother quarrels with child (Ref: Most days)			
More than once a week	2.24	0.65	0.01
Less than once a week	1.46	0.44	0.21
Hardly ever	1.62	0.51	0.13
Emotional difficulties (Ref: Close to average / slightly higher)			
High/Very high	2.05	0.53	0.01
Conduct difficulties (Ref: Close to average / slightly higher)			
High/Very high	2.35	0.90	0.03
Hyperactivity difficulties (Ref: Close to average / slightly higher)			
High/Very high	1.85	0.56	0.04
Peer relationship difficulties (Ref: Close to average / slightly higher)			
			0.03

High/Very high	1.90	0.55	0.03
Prosocial (Ref: Close to average / slightly lower)			0.01
Low/Very low	0.91	0.31	0.78

Table 21. Indifferent / not happy with family: Logistic regression

	Odds Ratio	Std. Err.	Sig
A) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	1.14	0.30	0.63
B) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	0.95	0.33	0.88
Age of mother (Ref: 40-45)			
<35	0.60	0.34	0.37
35-39	2.07	0.87	0.08
45-49	1.32	0.57	0.52
50+	4.19	2.08	0.00
Number of children in family (Ref: 2)			
1	1.14	0.51	0.77
3	4.41	1.87	0.00
4 or more	1.95	1.21	0.29
Age of youngest child in family (Ref: 5-10)			
0-4 years	0.21	0.12	0.01
11-15 years	1.06	0.50	0.91
Household income (Ref: Middle quintile)			
Poorest households	1.13	0.74	0.85
2nd poorest	3.13	1.53	0.02
Middle incomes	0.97	0.50	0.96
2nd richest	1.94	1.05	0.22
Highest parental qualification (Ref: Degree)			
Other higher degree	0.28	0.16	0.03
A-level etc.	0.32	0.14	0.01
GCSE etc.	0.35	0.13	0.00
Other qualification	0.74	0.42	0.59
No qualification	0.15	0.10	0.00
Life satisfaction of mother (Ref: Mostly/Completely satisfied)			
Somewhat satisfied / Neither / Somewhat dissatisfied	2.60	0.97	0.01
Mostly/Completely dissatisfied	1.05	0.61	0.93
How often mother eats dinner with child (Ref: Most days)			
Never	0.21	0.14	0.02
1-2 times per week	0.50	0.22	0.12
3-5 times per week	0.76	0.25	0.40
How often mother quarrels with child (Ref: Most days)			
More than once a week	0.70	0.26	0.34
Less than once a week	0.36	0.15	0.02
Hardly ever	0.35	0.16	0.02
How often child talks to mother about important things (Ref: Hardly ever)			
Most days	0.19	0.08	0.00
More than once a week	0.19	0.08	0.00
Less than once a week	0.39	0.15	0.01
Emotional difficulties (Ref: Close to average / slightly higher)			
			0.01

High/Very high	2.56	0.98	0.01
Conduct difficulties (Ref: Close to average / slightly higher)			0.00
High/Very high	7.13	2.46	0.00

Table 22. Indifferent / not happy with friends: Logistic regression

	Odds Ratio	Std. Err.	Sig
A) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	1.79	0.51	0.04
B) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	0.95	0.41	0.90
Sex of child (Ref: Girl)			
Boy	0.34	0.13	0.01
Free School Meal eligibility (Ref: Not eligible)			
Eligible for FSM	2.47	1.13	0.05
Highest parental qualification (Ref: Degree)			
Other higher degree	0.70	0.35	0.47
A-level etc.	0.99	0.40	0.97
GCSE etc.	0.70	0.30	0.39
Other qualification	0.20	0.14	0.02
No qualification	0.06	0.06	0.01
Whether child smokes (Ref: No)			
Tried or used to smoke	3.04	1.64	0.04
Currently smokes, even if just occasionally	4.58	2.71	0.01
How often child is bullied (not physically) at school (Ref: Never)			
Not much (1-3 times in the last 6 months)	2.45	1.09	0.04
Quite a lot (more than 4 times in the last week)	3.14	1.95	0.07
A lot (a few times every week)	4.72	3.01	0.02
Peer relationship difficulties (Ref: Close to average / slightly higher)			
High/Very high	10.65	4.51	0.00
Prosocial (High/Very high) (Ref: Close to average / slightly lower)			
Low/Very low	4.75	2.32	0.00

Table 23. Indifferent / not happy with life as a whole: Logistic regression

	Odds Ratio	Std. Err.	Sig
A) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	1.51	0.29	0.03
B) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	0.75	0.22	0.32
Sex of child (Ref: Girl)			
Boy	0.49	0.13	0.01
Family type (Ref: Couple)			
Single parent family	1.84	0.54	0.04
Rurality of residence (Ref: Urban)			
Rural area	2.20	0.64	0.01
How often mother talks about important matters with child (Ref: Most days)			
More than once a week	0.48	0.14	0.01
Less than once a week	0.74	0.31	0.47
Hardly ever	1.64	0.75	0.28
How often child talks to mother about important things (Ref: Hardly ever)			
Most days	0.22	0.09	0.00
More than once a week	0.43	0.15	0.02
Less than once a week	0.63	0.22	0.18
How often child is bullied (not physically) at school (Ref: Never)			
Not much (1-3 times in the last 6 months)	2.63	0.74	0.00
Quite a lot (more than 4 times in the last week)	1.50	0.64	0.34
A lot (a few times every week)	1.80	1.11	0.34
Emotional difficulties (Ref: Close to average / slightly higher)			
High/Very high	4.72	1.34	0.00
Conduct difficulties (Ref: Close to average / slightly higher)			
High/Very high	3.44	0.95	0.00
Peer relationship difficulties (Ref: Close to average / slightly higher)			
High/Very high	2.41	0.65	0.00
Prosocial (Ref: Close to average / slightly lower)			
Low/Very low	2.71	0.82	0.00

Annex E. Psychological difficulties score by key characteristics of children

Table 24. Psychological wellbeing (psychological difficulties score) by SEN status

Domain	Measure	Child has SEN	Child does not have SEN	All children
Emotional problems	Mean score (out of 10)	3.2	2.7	2.8
	% High / Very high (score 6-10)	18%	12%	14%
	% Close to average / Slightly higher	82%	88%	86%
Conduct problems	Mean score (out of 10)	2.8	2.0	2.2
	% High / Very high (score 5-10)	22%	11%	14%
	% Close to average / Slightly higher	78%	89%	86%
Hyperactivity	Mean score (out of 10)	4.8	3.8	4.0
	% High / Very high (score 7-10)	27%	13%	15%
	% Close to average / Slightly higher	73%	87%	85%
Peer	Mean score (out of 10)	2.4	1.6	1.7
	% High / Very high (score 4-10)	27%	12%	15%
	% Close to average / Slightly higher	73%	88%	85%
Total difficulties score	Mean score (out of 40)	13.3	10.1	10.7
	% High / Very high (score 18-40)	25%	11%	14%
	% Close to average / Slightly higher	75%	89%	86%
Prosocial	Mean score (out of 10)	7.3	7.7	7.7
	% Low / Very low (score 0-5)	21%	11%	13%
	% Close to average / Slightly lower	79%	89%	87%

Notes: Bold text indicates a statistically significant difference ($p < 0.05$) between children with SEN and children without SEN

Table 25. Psychological wellbeing (psychological difficulties score) by ethnicity

Domain	Measure	Ethnic minority	White British	All children
Emotional problems	Mean score (out of 10)	2.7	2.9	2.8
	% High / Very high (score 6-10)	12%	14%	14%
	% Close to average / Slightly higher	88%	86%	86%
Conduct problems	Mean score (out of 10)	2.2	2.2	2.2
	% High / Very high (score 5-10)	11%	13%	14%
	% Close to average / Slightly higher	89%	87%	86%
Hyperactivity	Mean score (out of 10)	3.6	4.1	4.0
	% High / Very high (score 7-10)	11%	16%	15%
	% Close to average / Slightly higher	89%	84%	85%
Peer	Mean score (out of 10)	1.6	1.8	1.8
	% High / Very high (score 4-10)	13%	15%	15%
	% Close to average / Slightly higher	87%	85%	85%
Total difficulties score	Mean score (out of 40)	10.1	11.0	10.8
	% High / Very high (score 18-40)	11%	14%	13%
	% Close to average / Slightly higher	89%	86%	87%
Prosocial	Mean score (out of 10)	7.7	7.7	7.7
	% Low / Very low (score 0-5)	14%	13%	13%
	% Close to average / Slightly lower	86%	87%	87%

Notes: Bold text indicates a statistically significant difference ($p < 0.05$) between white children and ethnic minority children

Table 26. Psychological wellbeing (psychological difficulties score) by first language

Domain	Measure	Not English	English	All children
Emotional problems	Mean score (out of 10)	2.6	2.9	2.8
	% High / Very high (score 6-10)	12%	14%	13%
	% Close to average / Slightly higher	88%	86%	87%
Conduct problems	Mean score (out of 10)	2.1	2.2	2.2
	% High / Very high (score 5-10)	12%	13%	13%
	% Close to average / Slightly higher	88%	87%	87%
Hyperactivity	Mean score (out of 10)	3.5	4.1	4.0
	% High / Very high (score 7-10)	10%	16%	15%
	% Close to average / Slightly higher	90%	84%	85%
Peer	Mean score (out of 10)	1.8	1.7	1.8
	% High / Very high (score 4-10)	18%	14%	15%
	% Close to average / Slightly higher	82%	86%	85%
Total difficulties score	Mean score (out of 40)	10.0	10.9	10.8
	% High / Very high (score 18-40)	12%	14%	13%
	% Close to average / Slightly higher	88%	86%	87%
Prosocial	Mean score (out of 10)	7.7	7.7	7.7
	% Low / Very low (score 0-5)	13%	13%	13%
	% Close to average / Slightly lower	87%	87%	87%

Notes: Bold text indicates a statistically significant difference ($p < 0.05$) between children whose first language is English and children whose first language is not English

Table 27. Psychological wellbeing (psychological difficulties score) by free school meal (FSM) eligibility

Domain	Measure	Eligible for FSM	Not eligible for FSM	All children
Emotional problems	Mean score (out of 10)	3.0	2.8	2.8
	% High / Very high (score 6-10)	14%	13%	14%
	% Close to average / Slightly higher	86%	87%	86%
Conduct problems	Mean score (out of 10)	2.6	2.1	2.2
	% High / Very high (score 5-10)	21%	11%	14%
	% Close to average / Slightly higher	79%	89%	86%
Hyperactivity	Mean score (out of 10)	4.5	3.9	4.0
	% High / Very high (score 7-10)	22%	14%	15%
	% Close to average / Slightly higher	78%	86%	85%
Peer	Mean score (out of 10)	2.2	1.7	1.8
	% High / Very high (score 4-10)	22%	14%	15%
	% Close to average / Slightly higher	78%	86%	85%
Total difficulties score	Mean score (out of 40)	12.4	10.5	10.8
	% High / Very high (score 18-40)	23%	12%	14%
	% Close to average / Slightly higher	77%	88%	86%
Prosocial	Mean score (out of 10)	7.5	7.8	7.7
	% Low / Very low (score 0-5)	17%	12%	13%
	% Close to average / Slightly lower	83%	88%	87%

Notes: Bold text indicates a statistically significant difference ($p < 0.05$) between children eligible for Free School Meals and children not eligible for Free School Meals

Annex F. Modelling psychological wellbeing: Regression analysis

Two types of regression analysis were used to explore the association between SEN status and psychological wellbeing.

- iii) Multiple linear regression analysis, using psychological difficulties score as the dependent variable. Separate analysis is carried out for each domain of the Strengths and Difficulties Questionnaire (SDQ).
- iv) Logistic regression analysis, using a binary dependent variable that categorises the SDQ score into 'high' or 'very high' (1) and 'close to average' or 'slightly raised' (0). Note that the classification for the Prosocial behaviour domain is 'low' or 'very low' (1) and 'close to average' or 'slightly lowered' (0).

The regression results are presented in two stages:

- c) Psychological wellbeing regressed on SEN status to show the association when no other factors are taken into account
- d) Psychological wellbeing regressed on SEN status taking account the factors listed in Figure 9. Only the factors significantly associated with wellbeing are presented for brevity.

Note that constants are not reported in the tables for reasons of data anonymity.

The full set of explanatory factors (independent variables) used in the modelling are listed in Figure 9 (categories of these factors are used in the analysis in Chapter 3).

Table 28. Emotional difficulties score: Linear regression

	Coef.	Std. Err.	Sig.	
A) Special Educational Needs status of child (Ref: No SEN)				0.00
Child has Special Educational Needs	0.53	0.16	0.00	
B) Special Educational Needs status of child (Ref: No SEN)				0.15
Child has Special Educational Needs	0.21	0.14	0.15	
Sex of child (Ref: Girl)				0.00
Boy	-0.92	0.11	0.00	
How often child is physically bullied at school (Ref: Never)				0.04
Not much (1-3 times in the last 6 months)	0.33	0.19	0.09	
Quite a lot (more than 4 times in the last week)	0.91	0.30	0.00	
A lot (a few times every week)	0.52	0.52	0.32	
How often child is bullied (not physically) at school (Ref: Never)				0.00
Not much (1-3 times in the last 6 months)	0.62	0.14	0.00	
Quite a lot (more than 4 times in the last week)	0.97	0.22	0.00	
A lot (a few times every week)	0.87	0.39	0.03	
How happy child is with their appearance (Ref: Happy / Indifferent)				0.00
Not happy	1.05	0.22	0.00	
How happy child is with their life as a whole (Ref: Happy)				0.00
Not happy / Indifferent	1.40	0.20	0.00	

Table 29. Conduct difficulties score: Linear regression

	Coef.	Std. Err.	Sig.	
A) Special Educational Needs status of child (Ref: No SEN)				0.00
Child has Special Educational Needs	0.82	0.13	0.00	
B) Special Educational Needs status of child (Ref: No SEN)				0.02
Child has Special Educational Needs	0.26	0.11	0.02	
Sex of child (Ref: Girl)				0.00
Boy	0.30	0.08	0.00	
Age of child (Ref: 13)				0.03
10	0.39	0.15	0.01	
11	0.33	0.14	0.02	
12	0.34	0.13	0.01	
14	0.03	0.13	0.85	
15	0.09	0.13	0.49	
Whether child smokes (Ref: No)				0.00
Tried or used to smoke	0.49	0.18	0.01	
Currently smokes, even if just occasionally	0.88	0.27	0.00	
Whether child has drunk alcohol (Ref: No)				0.00
Yes	0.29	0.09	0.00	
Total screen time of child (Ref: Lowest)				0.00
Quartile with 2nd least screen time	0.05	0.12	0.68	
Quartile with 2nd most screen time	0.47	0.15	0.00	
Quartile with most screen time	0.45	0.16	0.00	
How often mother talks about important matters with child (Ref: Most days)				0.04
More than once a week	-0.01	0.10	0.92	
Less than once a week	0.29	0.14	0.04	
Hardly ever	0.12	0.25	0.64	
How often mother quarrels with child (Ref: Most days)				0.00
More than once a week	-0.21	0.13	0.10	
Less than once a week	-0.51	0.12	0.00	
Hardly ever	-0.89	0.12	0.00	
How often child is physically bullied at school (Ref: Never)				0.05
Not much (1-3 times in the last 6 months)	0.40	0.15	0.01	
Quite a lot (more than 4 times in the last week)	0.66	0.29	0.02	
A lot (a few times every week)	0.40	0.37	0.28	
How happy child is with their school work (Ref: Happy / Indifferent)				0.00
Not happy	0.65	0.20	0.00	
How happy child is with their family (Ref: Happy)				0.00
Not happy + indifferent	1.22	0.24	0.00	
How happy child is with their friends (Ref: Happy)				0.02
Not happy + indifferent	-0.22	0.26	0.40	
How happy child is with their life as a whole (Ref: Happy)				0.01
Not happy + indifferent	0.45	0.16	0.01	

Table 30. Hyperactivity difficulties score: Linear regression

	Coef.	Std. Err.	Sig.	
A) Special Educational Needs status of child (Ref: No SEN)				
Child has Special Educational Needs	1.08	0.18	0.00	
B) Special Educational Needs status of child (Ref: No SEN)				
Child has Special Educational Needs	0.45	0.15	0.00	0.00
Sex of child (Ref: Girl)				
Male	0.43	0.12	0.00	0.00
Health of mother (Ref: No illness or disability)				
Mother has illness or disability	0.44	0.14	0.00	0.00
Total screen time of child (Ref: Lowest)				
Quartile with 2nd least screen time	0.14	0.18	0.43	
Quartile with 2nd most screen time	0.69	0.21	0.00	
Quartile with most screen time	0.55	0.21	0.01	
How often mother quarrels with child (Ref: Most days)				
More than once a week	-0.29	0.17	0.09	0.00
Less than once a week	-0.30	0.17	0.08	
Hardly ever	-0.69	0.17	0.00	
How happy child is with their school (Ref: Happy / Indifferent)				
Not happy	0.97	0.25	0.00	0.00
How happy child is with their school work (Ref: Happy / Indifferent)				
Not happy	0.82	0.23	0.00	0.00
How happy child is with their appearance (Ref: Happy / Indifferent)				
Not happy	0.71	0.19	0.00	0.00

Table 31. Peer relationship difficulties score: Linear regression

	Coef.	Std. Err.	Sig.	
A) Special Educational Needs status of child (Ref: No SEN)				
Child has Special Educational Needs	0.86	0.15	0.00	
B) Special Educational Needs status of child (Ref: No SEN)				
Child has Special Educational Needs	0.33	0.10	0.00	0.00
Sex of child (Ref: Girl)				
Boy	0.15	0.07	0.05	0.05
Age of child (Ref: 13)				
10	0.20	0.13	0.12	
11	0.11	0.12	0.37	
12	-0.04	0.12	0.70	
14	0.23	0.12	0.06	
15	0.37	0.12	0.00	
Whether child smokes (Ref: No)				
Tried or used to smoke	-0.32	0.16	0.05	
Currently smokes, even if just occasionally	-0.17	0.21	0.41	
How often child is physically bullied at school (Ref: Never)				
Not much (1-3 times in the last 6 months)	0.84	0.13	0.00	
Quite a lot (more than 4 times in the last week)	1.44	0.30	0.00	
A lot (a few times every week)	1.50	0.38	0.00	
How often child is bullied (not physically) at school (Ref: Never)				
Not much (1-3 times in the last 6 months)	0.51	0.11	0.00	
Quite a lot (more than 4 times in the last week)	1.37	0.19	0.00	
A lot (a few times every week)	1.74	0.28	0.00	
How happy child is with their friends (Ref: Happy)				
Not happy / Indifferent	1.70	0.21	0.00	0.00
How happy child is with their life as a whole (Ref: Happy)				
Not happy / Indifferent	0.75	0.14	0.00	0.00

Table 32. Total difficulties score: Linear regression

	Coef.	Std. Err.	Sig.	
A) Special Educational Needs status of child (Ref: No SEN)				
Child has Special Educational Needs	3.16	0.42	0.00	
B) Special Educational Needs status of child (Ref: No SEN)				
Child has Special Educational Needs	1.26	0.33	0.00	0.00
Age of youngest child in family (Ref: 5-10)				
0-4 years	0.03	0.47	0.94	0.03
11-15 years	0.22	0.37	0.55	
Mostly/Completely dissatisfied	-0.56	0.44	0.21	
Total screen time of child (Ref: Least)				
Quartile with 2nd least screen time	0.31	0.42	0.47	0.00
Quartile with 2nd most screen time	1.37	0.44	0.00	
Quartile with most screen time	1.04	0.49	0.03	
How often mother quarrels with child (Ref: Most days)				
More than once a week	-0.34	0.37	0.37	0.00
Less than once a week	-0.92	0.37	0.01	
Hardly ever	-1.50	0.37	0.00	
How often child is physically bullied at school (Ref: Never)				
Not much (1-3 times in the last 6 months)	1.53	0.43	0.00	0.00
Quite a lot (more than 4 times in the last week)	3.00	0.81	0.00	
A lot (a few times every week)	1.85	1.10	0.09	
How often child is bullied (not physically) at school (Ref: Never)				
Not much (1-3 times in the last 6 months)	1.61	0.34	0.00	0.00
Quite a lot (more than 4 times in the last week)	3.32	0.56	0.00	
A lot (a few times every week)	4.03	0.90	0.00	
How happy child is with their school (Ref: Happy / Indifferent)				
Not happy	1.07	0.54	0.05	0.05
How happy child is with their school work (Ref: Happy / Indifferent)				
Not happy	1.75	0.46	0.00	0.00
How happy child is with their appearance (Ref: Happy / Indifferent)				
Not happy	2.27	0.45	0.00	0.00
How happy child is with their family (Ref: Happy)				
Not happy + indifferent	1.66	0.60	0.01	0.01
How happy child is with their friends (Ref: Happy)				
Not happy + indifferent	1.60	0.72	0.03	0.03
How happy child is with their life as a whole (Ref: Happy)				
Not happy + indifferent	3.01	0.45	0.00	0.00

Table 33. Prosocial score: Linear regression

	Coef.	Std. Err.	Sig.
A) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	-0.42	0.14	0.00
B) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	-0.22	0.12	0.08
Sex of child (Ref: Girl)			
Boy	-0.88	0.09	0.00
Age of child (Ref: 13)			
10	0.49	0.17	0.00
11	0.31	0.15	0.04
12	0.01	0.15	0.96
14	-0.05	0.15	0.75
15	0.08	0.16	0.60
How often mother talks about important matters with child (Ref: Most days)			
More than once a week	-0.19	0.11	0.07
Less than once a week	-0.19	0.16	0.24
Hardly ever	-0.41	0.25	0.10
How often child talks to mother about important things (Ref: Most days)			
Most days	0.54	0.14	0.00
More than once a week	0.37	0.14	0.01
Less than once a week	-0.07	0.15	0.66
Don t have father	0.29	0.46	0.53
How often child talks to father about important things (Ref: Most days)			
Most days	0.67	0.15	0.00
More than once a week	0.46	0.13	0.00
Less than once a week	0.33	0.12	0.01
Don t have father	0.05	0.20	0.79
How often mother cuddles child (Ref: Seldom / Sometimes)			
Never / seldom	0.31	0.29	0.29
Very often	-0.07	0.14	0.64
How happy child is with their school work (Ref: Happy / Indifferent)			
Not happy	-0.24	0.21	0.25
How happy child is with their life as a whole (Ref: Happy)			
Not happy + indifferent	-0.57	0.18	0.00

Table 34. High / very high emotional difficulties score: Logistic regression

	Coef.	Std. Err.	Sig.
A) Special Educational Needs status of child (Ref: No SEN)			0.01
Child has Special Educational Needs	1.58	0.28	0.01
B) Special Educational Needs status of child (Ref: No SEN)			0.21
Child has Special Educational Needs	1.37	0.34	0.21
Sex of child (Ref: Girl)			0.00
Boy	0.29	0.06	0.00
Age of mother (Ref: 40-44)			0.02
<35	0.57	0.21	0.13
35-39	0.86	0.24	0.59
45-49	0.45	0.12	0.00
50+	1.32	0.48	0.44
Lone father family	1.05	1.78	0.98
Highest parental qualification (Ref: Degree)			0.03
Other higher degree	0.68	0.23	0.24
A-level etc.	2.05	0.55	0.01
GCSE etc.	1.42	0.42	0.23
Other qualification	2.10	0.85	0.07
No qualification	1.28	0.79	0.69
Health of mother (Ref: No illness or disability)			0.04
Mother has illness or disability	1.68	0.37	0.02
How often mother eats dinner with child (Ref: Most days)			0.00
Never	1.17	0.49	0.72
1-2 times per week	0.83	0.26	0.55
3-5 times per week	0.72	0.19	0.22
How often mother talks about important matters with child (Ref: Most days)			0.00
More than once a week	1.40	0.35	0.18
Less than once a week	1.21	0.43	0.59
Hardly ever	0.18	0.12	0.01
How often mother quarrels with child (Ref: Most days)			0.00
More than once a week	0.90	0.25	0.69
Less than once a week	0.92	0.27	0.78
Hardly ever	1.18	0.33	0.55
How often mother cuddles child (Ref: Seldom / Sometimes)			0.00
Never / seldom	1.04	0.78	0.96
Very often	1.24	0.37	0.47
How often child is bullied (not physically) at school (Ref: Never)			0.00
Not much (1-3 times in the last 6 months)	1.97	0.50	0.01
Quite a lot (more than 4 times in the last week)	3.55	1.27	0.00
A lot (a few times every week)	4.48	2.48	0.01
How happy child is with their life as a whole (Ref: Happy)			0.00
Not happy + indifferent	4.22	1.11	0.00

Table 35. High / very high conduct difficulties score: Logistic regression

	Odds ratio	Std. Err.	Sig.
A) Special Educational Needs status of child (Ref: No SEN)			0.00
Child has Special Educational Needs	2.46	0.45	0.00
B) Special Educational Needs status of child (Ref: No SEN)			0.07
Child has Special Educational Needs	1.52	0.35	0.07
Sex of child (Ref: Girl)			0.00
Boy	1.82	0.38	0.01
Health of mother (Ref: No illness or disability)			0.04
Mother has illness or disability	0.66	0.17	0.10
Whether child smokes (Ref: No)			0.00
Tried or used to smoke	2.60	0.93	0.01
Currently smokes, even if just occasionally	3.70	1.94	0.01
Whether child has drunk alcohol (Ref: No)			0.01
Yes	1.98	0.43	0.00
Total screen time of child (Ref: Least)			0.00
Quartile with 2nd least screen time	0.65	0.22	0.20
Quartile with 2nd most screen time	1.81	0.65	0.10
Quartile with most screen time	1.30	0.47	0.48
How often mother eats dinner with child (Ref: 6-7 times)			0.00
Never	2.38	0.89	0.02
1-2 times per week	0.78	0.29	0.50
3-5 times per week	0.63	0.16	0.07
How often mother talks about important matters with child (Ref: Most days)			0.00
More than once a week	1.14	0.30	0.62
Less than once a week	2.08	0.66	0.02
Hardly ever	1.17	0.66	0.78
How often mother quarrels with child (Ref: Most days)			0.00
More than once a week	0.74	0.19	0.25
Less than once a week	0.58	0.15	0.04
Hardly ever	0.26	0.08	0.00
How happy child is with their school work (Ref: Happy / Indifferent)			0.00
Not happy	3.95	1.45	0.00
How happy child is with their appearance (Ref: Happy / Indifferent)			0.13
Not happy	1.92	0.64	0.05
How happy child is with their family (Ref: Happy)			0.00
Not happy + indifferent	4.77	1.68	0.00

Table 36. High / very high hyperactivity difficulties score: Logistic regression

	Odds ratio	Std. Err.	Sig.	
A) Special Educational Needs status of child (Ref: No SEN)				0.00
Child has Special Educational Needs	2.46	0.42	0.00	
B) Special Educational Needs status of child (Ref: No SEN)				0.01
Child has Special Educational Needs	1.74	0.36	0.01	
Sex of child (Ref: Girl)				0.01
Boy	1.66	0.31	0.01	
Age of mother (Ref: 40-44)				0.03
<35	0.99	0.30	0.96	
35-39	0.76	0.21	0.33	
45-49	0.75	0.17	0.19	
50+	1.29	0.44	0.46	
Lone father family	0.02	0.03	0.00	
Health of mother (Ref: No illness or disability)				0.00
Mother has illness or disability	1.85	0.36	0.00	
How often mother quarrels with child (Ref: Most days)				0.00
More than once a week	0.83	0.19	0.42	
Less than once a week	0.61	0.15	0.04	
Hardly ever	0.49	0.12	0.00	
How happy child is with their school (Ref: Happy / Indifferent)				0.02
Not happy	2.21	0.62	0.01	
How happy child is with their appearance (Ref: Happy / Indifferent)				0.04
Not happy	1.82	0.46	0.02	

Table 37. High / very high peer relationship difficulties score: Logistic regression

	Odds ratio	Std. Err.	Sig.
A) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	2.71	0.44	0.00
B) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	2.15	0.52	0.00
Sex of child (Ref: Girl)			
Boy	2.21	0.50	0.00
Ethnic group of child (Ref: White)			
Ethnic minority	1.38	0.43	0.31
How often mother eats dinner with child (Ref: 6-7 times per week)			
Never	1.83	0.83	0.18
1-2 times per week	2.01	0.70	0.05
3-5 times per week	0.98	0.27	0.95
How often child is physically bullied at school (Ref: Never)			
Not much (1-3 times in the last 6 months)	2.17	0.58	0.00
Quite a lot (more than 4 times in the last week)	6.25	2.77	0.00
A lot (a few times every week)	3.91	2.18	0.02
How often child is bullied (not physically) at school (Ref: Never)			
Not much (1-3 times in the last 6 months)	3.47	0.95	0.00
Quite a lot (more than 4 times in the last week)	16.44	5.17	0.00
A lot (a few times every week)	13.06	6.37	0.00
How happy child is with their appearance (Ref: Happy / Indifferent)			
Not happy	1.36	0.44	0.35
How happy child is with their family (Ref: Happy)			
Not happy + indifferent	0.63	0.25	0.24
How happy child is with their friends (Ref: Happy)			
Not happy + indifferent	8.57	3.52	0.00
How happy child is with their life as a whole (Ref: Happy)			
Not happy + indifferent	3.43	0.90	0.00

Table 38. High / very high total difficulties score: Logistic regression

	Odds ratio	Std. Err.	Sig.
A) Special Educational Needs status of child (Ref: No SEN)			0.00
Child has Special Educational Needs	2.66	0.46	0.00
B) Special Educational Needs status of child (Ref: No SEN)			0.02
Child has Special Educational Needs	1.85	0.46	0.02
How often mother eats dinner with child (Ref: 6-7 times per week)			0.00
Never	2.43	1.19	0.07
1-2 times per week	0.57	0.25	0.20
3-5 times per week	0.68	0.22	0.24
How often child is physically bullied at school (Ref: Never)			0.00
Not much (1-3 times in the last 6 months)	2.05	0.62	0.02
Quite a lot (more than 4 times in the last week)	5.15	2.27	0.00
A lot (a few times every week)	3.78	2.40	0.04
How often child is bullied (not physically) at school (Ref: Never)			0.00
Not much (1-3 times in the last 6 months)	1.90	0.56	0.03
Quite a lot (more than 4 times in the last week)	3.83	1.37	0.00
A lot (a few times every week)	5.02	2.51	0.00
How happy child is with their school work (Ref: Happy / Indifferent)			0.03
Not happy	2.34	0.83	0.02
How happy child is with their appearance (Ref: Happy / Indifferent)			0.00
Not happy	3.09	0.96	0.00
How happy child is with their family (Ref: Happy)			0.00
Not happy + indifferent	3.21	1.15	0.00
How happy child is with their life as a whole (Ref: Happy)			0.00
Not happy + indifferent	3.97	1.15	0.00

Table 39. Low / very low prosocial score: Logistic regression

	Odds ratio	Std. Err.	Sig.
A) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	2.17	0.38	0.00
B) Special Educational Needs status of child (Ref: No SEN)			
Child has Special Educational Needs	1.57	0.36	0.05
Sex of child (Ref: Girl)			
Boy	3.78	0.85	0.00
Family type (Ref: Couple)			
Single parent family	0.58	0.15	0.04
Life satisfaction of mother (Ref: Mostly/Completely satisfied)			
Somewhat satisfied / Neither / Somewhat dissatisfied	1.37	0.34	0.21
Mostly/Completely dissatisfied	0.49	0.18	0.05
How often mother talks about important matters with child (Ref: Most days)			
More than once a week	1.60	0.37	0.04
Less than once a week	1.21	0.39	0.56
Hardly ever	2.49	1.10	0.04
How often mother quarrels with child (Ref: Most days)			
More than once a week	0.88	0.22	0.60
Less than once a week	0.54	0.15	0.03
Hardly ever	0.47	0.13	0.01
How often child talks to mother about important things (Ref: Hardly ever)			
Most days	0.56	0.18	0.07
More than once a week	0.59	0.19	0.10
Less than once a week	1.36	0.37	0.26
Don t have father	1.00	(empty)	
How often mother cuddles child (Ref: Sometimes)			
Never / seldom	0.15	0.12	0.02
Very often	0.98	0.28	0.94
How happy child is with their friends (Ref: Happy)			
Not happy + indifferent	2.79	1.22	0.02
How happy child is with their life as a whole (Ref: Happy)			
Not happy + indifferent	2.15	0.68	0.02



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