

Health and Happiness Survey of 10 to 11-year olds in West Sussex

Tim Martin and Robert Whitehead

*Survey Results
2019*

**Published by**

The Public Health and Social Research Unit
West Sussex County Council
The Grange
County Hall Campus
Chichester
West Sussex PO19 1QT

First published 2019

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A green header bar at the top of the page contains various white line-art icons. These icons include a car, a camera, a flower, a hand, a magnifying glass, a leaf, a person, a speech bubble, a star, a triangle, a circle, and a square.

Acknowledgements

We would like to thank Jacqueline Clay, Matthew Dorey, Graeme Potter, Pat Rouse, Richard Tyler, Ryan Walkley and Chloe Barnett for their support, advice and enthusiasm in developing and undertaking the research presented in this report.

Our acknowledgements must also go to all the schools and school staff whose engagement, interest and support helped to make the survey happen.

Finally, but most importantly, we would like to thank all the children who took part in the survey, meticulously completing and returning their questionnaires.

Tim Martin and Robert Whitehead



Foreword

Children and young people's mental health and emotional wellbeing are key priorities for Public Health and the council and are central to the work of partner organisations working to improve children's lives. However, very little information is available about these priority areas with regard to younger children in particular, nor about their lifestyle choices. We therefore proposed that research should be undertaken to help fill in some of the gaps in our knowledge. This took the form of a Health and Happiness Survey of 10 to 11-year old children.

The survey links in with the work of Public Health and supports the Public Health Plan, the West Sussex Joint Health and Wellbeing Strategy 2019-2024, the Wellbeing and Resilience Framework 2018 and the West Sussex Local Transformation Plan for Children and Young People's Mental Health and Emotional Wellbeing 2015-2021.

The design and validation of the survey will allow it to be repeated in the future enabling comparisons over time. This will enable us to examine changes and progress across a range of areas covered by the survey.

It will therefore be of interest to a wide range of partners, from individual schools to commissioners, working to deliver better outcomes for children and young people.

The survey would not have been possible without the participation and support of the children who took part, their parents and schools. Colleagues in Public Health and the wider council provided expert advice on the development and design of the survey. The Public Health and Social Research Unit has produced this report so that the findings presented here can be used to inform policy, decision-making and strategy in the county with the intention of improving children's health and wellbeing.

Tim Martin

1 Introduction

Introduction and background

The health and wellbeing of children is vitally important not only to their development and growth, but also to wider society.

It is therefore crucial that we have a good understanding about the health and wellbeing issues that children may face. It is also useful to explore and learn how these issues are associated with other aspects of children's lives, such as lifestyle behaviours. This can help to shed light on how and where resources can be targeted to improve outcomes.

The overarching aims of the research were:

- To collect information on key health and wellbeing-related lifestyle behaviours and attitudes of Year 6 pupils (age 10-11) in full-time education in West Sussex, by including questions on mental and emotional health.
- To pilot and develop a methodology to collect this information in a way that can be repeated in future years.
- To contribute to the evidence base for various plans, policies, programmes and commissioning intentions in the county related to health and wellbeing of children.
- To contribute to the evidence base for various WSCC, NHS Sussex departments/teams, CCGs and schools.

Measuring mental health and wellbeing

The Good Childhood Report (2016) suggests that wellbeing can be measured in two ways.¹ Firstly, it can be measured objectively where indicators might include levels of poverty, health and educational attainment.

Secondly, a subjective approach can be taken which would include children's own evaluations of their lives as a whole, where indicators might include levels of self-esteem, confidence and self-awareness. In the 2018 Good Childhood Report, the Children's Society suggest that gaining children's own views 'should be considered the gold standard' as the reporting of children's wellbeing by others, such as parents and teachers, may lack validity.²

This supports the use of a self-completion questionnaire as a valid method to collect data for our research in West Sussex. Furthermore, other aspects of children's lives could be investigated in this way, including factors that have been found to be associated with mental health and wellbeing in children and young people.

Developing the questionnaire

Once the idea of using a questionnaire became central to the methodology of the project, various sources were used to develop the questions.

Questions from the earlier Lifestyles Survey of 14-15 Year Olds in West Sussex were used as a basis for a selection of the lifestyle questions relating to exercise, diet, bullying, leisure time and bullying.³ This meant that comparisons could potentially be made between the two surveys and age groups.

Questions associated with emotional wellbeing, life satisfaction and happiness were sought from other sources. An extensive search was undertaken to find suitable validated measures that could be used either in their entirety or in part. These were then appraised for their suitability to use within a questionnaire format. A good number of validated measures are available to assess emotional wellbeing, life satisfaction and happiness. However, only a small number of measures were suitable for self-completion by 10 and 11-year olds. A common factor in these measures was that they were based on self-completion questionnaires.

The measures that were decided on were the Cantril Ladder and the Emotion Regulation Questionnaire.^{4, 5} In addition to these, two elements were used from the Good Childhood Index, namely the Modified Huebner Students Life Satisfaction Scale and the ten-point happiness scale.⁶ Together these measures give a good picture of young people's emotional wellbeing.

The questionnaire also included a range of questions relating to factors that the referenced literature has shown to be associated with mental health and wellbeing in children, as listed below.⁷ The aspects included in the questionnaire are marked with an asterisk (*).

¹ Children's Society. (2016). The Good Childhood Report. London: Children's Society.

² Children's Society. (2018). The Good Childhood Report. London: Children's Society.

³ Martin, T. and Whitehead, R. (2015). Lifestyles of 14-15 Year Olds in West Sussex. Public Health and Social Research Unit, West Sussex County Council.

⁴ Cantril, H. (1965). The pattern of human concerns. New Brunswick, NJ: Rutgers University Press.

⁵ Gross, J.J. and John, O.P. (2003). Individual differences in two emotion regulation processes: Implications for affect,

relationships, and well-being. Journal of Personality and Social Psychology, 85, 348-362.

⁶ Rees, G., Goswami, H. and Bradshaw, J. (2010). Developing an index of children's subjective well-being in England. London: The Children's Society.

⁷ Patalay, P. and Fitzsimons, E. (2016). Correlates of mental illness and wellbeing in children: Are they the same? Results from the UK Millennium Cohort Study. Journal of the American Academy of Child and Adolescent Psychiatry. 55(9), 771-783.

Factors associated with poorer wellbeing:

- Higher family income
- Perceived wealth compared to peers
- Being overweight *
- Single parent family *
- Arguing with parents *
- Bullied by siblings
- Peer problems
- Being bullied *
- Lack of friendships *
- Wider environmental factors *
- Lower engagement with school *
- Perceptions of neighbourhood safety.

Factors associated with mental health symptoms:

- Being of a white ethnic background
- Lower income
- Poorer cognitive abilities (LD and communications)
- Single parent family *
- Arguing with parents *
- Poor parental mental health
- Poor parental health
- Bullied by siblings *
- Chronic illness.

Factors associated with positive personal wellbeing which were also included:

- Emotional regulation *
- Awareness of personal strengths *
- Being physically active *
- Positive social connections *
- Engagement in meaningful activity *
- Having a plan/goal, sense of accomplishment. *

Testing the survey

As this was the first time research of this kind had been undertaken in the county, it was decided that a pilot survey should be undertaken. This would enable the research team to test out the methodology, questionnaire and measures and refine them for future use.

To this end, a pilot survey was undertaken with 641 Year 6 children in 16 primary schools across West Sussex. Feedback was sought from the schools about the questionnaire and methodology and this was considered and incorporated into the design of the updated survey.

2 The socio-demographic profile of the respondents

Survey Results

A total of 1185 Year 6 pupils from 39 schools completed the survey. This represents 13.4% of the total Year 6 population in West Sussex.⁸

The survey took place in the spring term of 2018. The spring term of the academic year tends to give a better balance of ages (10 and 11-year olds) than other terms.

There were nearly the same number of boys and girls who took part in the survey (584 boys and 580 girls; 21 did not state their sex). The table below shows the number of pupils by age and sex.

Table 1: Responses by age and sex

Age	Boy	Girl
9	0	1
10	329	318
11	247	256
12	1	0

Forty pupils (3.6%) reported having a disability.

We asked pupils about their family. The table below shows the parents or carers living in the same home as the child.

Table 2: Number of parents/carers living at home

Who lives at home	Pupils	Percentage
Both parents	884	75.4%
One parent and one step parent	124	10.6%
One parent	153	13.0%
Carer or carers	12	1.0%

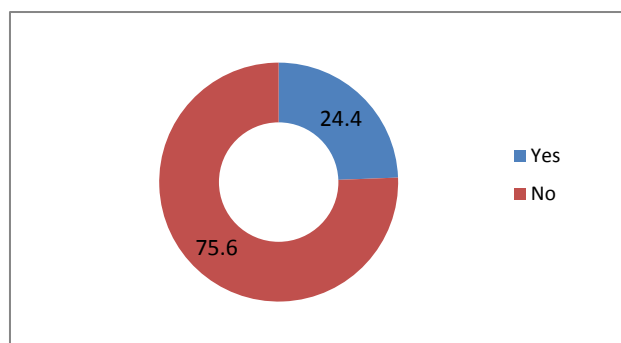
Table 3 shows the proportion of pupils who said that their parents worked.

Table 3: Employment status of parents/carers

Which of your parents/carers works?	Pupils	Percentage
Both my parents/carers work	885	76.2%
One of my parents/carers works	256	22.0%
Neither of my parents/carers work	20	1.7%

A total of 282 pupils (24.4%) reported that at least one of their parents smoked.

Figure 1: Proportion of pupils who said their parents smoked



Of the 1185 pupils completing the questionnaire, 86.7% reported that the main language used at home was English, a similar figure to the county at 88.2%.⁹ Only 4.7% of pupils did not answer this question.

Table 4: Self-reported main language spoken at home

Language	Pupils	Percentage
English	1029	86.7%
Other language	100	8.6%
Unknown	56	4.7%

Key points

1. The demographic characteristics of the children in the survey were consistent with the equivalent children in the county.
2. Three-quarters of the children lived with both their parents.
3. Thirteen percent lived with one parent.
4. Three-quarters of the children reported that both their parents worked.
5. Just under a quarter of children said that at least one of their parents smoked. This is a known predictor of children taking up smoking themselves.¹⁰
6. Eighty-seven percent said that English was the main language spoken at home.

⁸ The total number of Year 6 pupils on roll in West Sussex was 8832 in the spring term of the 2017-18 school year.

⁹ DfE. (2018). School Pupils and their Characteristics 2018: Local Authority Tables.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/725294/Schools_Pupils_and_their_Characteristics_2018_LA_Tables.xlsx

¹⁰ Alves et al. (2016). The role of parental smoking on adolescent smoking and its social patterning: a cross-sectional survey in six European cities. *Journal of Public Health*. 39(2), 339-346.

3 Diet and exercise

Diet

West Sussex remains below the national and regional averages for the percentage of Year 6 children who are considered to be overweight or obese at 28.6%. This compares with 30.6% for the south east region and 34.2% for England.¹¹ The data also indicate that obesity is associated with deprivation.

Sugar intake

Sugar intake is known to be a determinant of bodyweight and is associated with other health issues such as dental caries.^{12 13} A reduction in sugar intake can help to reduce these health concerns.

Other conditions have also been associated with high levels of sugar intake, but the evidence base for these is thought to be weak.¹⁴ The most robust evidence comes in the form of sugary drinks and their association with developing obesity.^{15 16} However, there is some evidence to suggest that the consumption of sugary soft drinks by primary-aged children has reduced in recent years.

Even so, there is no agreed safe upper limit for sugar intake, the WHO suggests that sugar intake should be less than 10% of the total calories consumed.^{17 18} The UK government suggests that this should be less than 5%, which equates to six or seven cubes of sugar a day for children who are 10 or 11 years' old. Soft drinks, such as colas, contain the equivalent of nine cubes.

The most recent figures illustrate that, on average, sugar makes up more than the recommended 5% of total calorie consumption in children's diets. In the UK, figures for 2018 show that around 13.5% of 4 to 10-year olds' and around 14% of 11 to 18-year olds' total calorie intake is made up of sugar.¹⁹

In response to these concerns, 2018 saw the introduction of a 'sugar tax' on sugary drinks (the 'Soft Drinks

Industry Levy'), which it is hoped will reduce the consumption of these drinks. However, even before the tax came into force, some drinks manufacturers had already reduced the sugar content in their products.²⁰

Five-a-day

It is recommended that both adults and children should have at least five portions of fruit and vegetables a day. The recommendation is for those aged 11 and over.

Although no figures are available to illustrate the proportion of 10 and 11 year old children meeting the 'five-a-day' recommendation, in the 11-18 year age range it is thought to be only 8% or 2.7 portions on average.²¹ Younger children seem to eat more healthily with 49% of primary school children reported to consume their five-a-day.²² However, even eating one portion of fruit a day is positively associated with good health.²³

Influence on dietary choices

Price is thought to be the most important factor in people's choice of food, whilst healthy options are much lower on people's list of choices.²⁴

Parents and carers can directly and indirectly influence their children's dietary intake, as they will typically have a strong influence over the components of their diet. At the same time young children will often model their parents' diets. As the child grows older, they are then also likely to be influenced by what their peers eat.²⁵

Exercise

The UK Chief Medical Officer's guide for physical activity for 5 to 18-year olds recommends that children and young people should aim to be active for at least 60 minutes every day. However, research suggests that only between 16% and 26% of 8 to 12-year olds meet these recommendations.^{26 27} Additionally, the same research illustrates that as children get older, they tend to be even

¹¹ National Child Measurement Programme 2016/17.

¹² Te Morenga, L., Mallard, S. and Mann, J. (2013). Dietary sugars and body weight: systematic review and meta-analyses of randomised controlled trials and cohort studies. *BMJ* 2012;345:e7492 doi: 10.1136/bmj.e7492.

¹³ Moynihan, P. and Kelly, S. (2014). Effect on caries of restricting sugars intake: systematic review to inform WHO guidelines. *Dent Res.* 93(1), 8-18. doi: 10.1177/0022034513508954.

¹⁴ Te Morenga, L., Mallard, S. and Mann, J. (2013). *Op. cit.*

¹⁵ See, for example, Mattes, R., Shikany, J., Kaiser, K. and Allison, D. (2011). Nutritively sweetened beverage consumption and body weight: a systematic review and meta-analysis of randomized experiments. *Obes Rev.* 12, 346-65.

¹⁶ Gibson, S. (2008). Sugar-sweetened soft drinks and obesity: a systematic review of the evidence from observational studies and interventions. *Nutr Res Rev.* 21, 134-47.

¹⁷ Te Morenga, L., Mallard, S. and Mann, J. (2013), *Op. cit.*

¹⁸ WHO. (2015). Guideline: Sugars intake for adults and children. Geneva: World Health Organization; 2015.

¹⁹ NatCen and MRC. (2018). National Diet and Nutrition Survey Results from Years 7 and 8, tables.

²⁰ BBC, 6 April 2018. Soft drink sugar tax starts, but will it work? <http://www.bbc.co.uk/news/health-43659124>

²¹ NatCen and MRC. (2018). National Diet and Nutrition Survey Results from Years 7 and 8 (combined) of the Rolling Programme (2014/2015 to 2015/2016).

²² BNF. (2016). Healthy Eating Week Survey, 2016.

²³ Ozcan, B. et al. (2017). Children's Wellbeing and Development Outcomes for Ages 5, 7 and 11 and their Predictors. London: LSE.

²⁴ Department for Environment, Food and Rural Affairs (2014).

Food Statistics Pocketbook 2013. York: Department for Environment, Food and Rural Affairs.

²⁵ BMA. (2015). Food for Thought: Promoting Healthy Diets Among Children and Young People.

²⁶ Health Survey for England 2015, NHS Digital.

<http://www.content.digital.nhs.uk/catalogue/PUB22610>.

²⁷ Sport England. (2018). Active Lives Children and Young People Survey.

less likely to meet the recommendations. Boys are slightly more likely to meet the requirements than girls. Other research suggests that exercising just once a week can provide positive health benefits for 11-year olds.²⁸

Survey Results

Diet

We asked pupils to tell us about their diet, including how many portions of fruit and vegetables they typically eat in a day, how often they consumed fizzy drinks or energy drinks, how often they have sweets and whether or not they ate breakfast.

The table below shows the number and proportion of pupils by the number of portions of fruit and vegetables eaten on an average day.

A total of 369 pupils (31.5%) reported eating at least five portions of fruit and vegetables per day, meeting the recommended daily consumption.

Girls were slightly more likely than boys to meet the five or more a day recommendation (34% for girls v 29% for boys).

Table 5: Number of fruit and vegetable portions eaten per day

Portions of fruit and vegetables	Pupils	Percentage
0	22	1.9%
1	75	6.4%
2	169	14.4%
3	260	22.2%
4	275	23.5%
5	197	16.8%
6 or more	172	14.7%

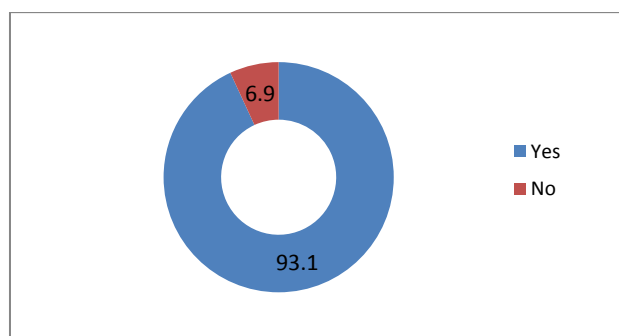
Pupils were asked to think about their own diets and report how healthy they thought they were (Table 6). A total of 1083 pupils (93.3%) reported having a healthy or very healthy diet. Girls were slightly more likely to report a healthy diet than boys with 96% saying this compared with 91% of boys.

Table 6: Healthy diet

In general, how healthy is your diet?	Pupils	Percentage
Very healthy	157	13.5%
Healthy	926	79.8%
Unhealthy	73	6.3%
Very unhealthy	4	0.3%

Figure 2 shows the number of pupils who reported that they usually ate breakfast. A total of 1078 pupils (93.1%) said they usually ate breakfast. Girls were more likely to say they did not eat breakfast with 8% reporting this compared with 5% for boys.

Figure 2: Proportion of pupils eating breakfast



As previously noted, high sugar consumption is associated with various health issues and conditions. Recommendations limit the daily intake to a maximum of 6 or 7 cubes of sugar for 10 and 11-year olds. Soft drinks frequently contain high amounts of sugar, often one serving exceeding the sugar intake recommendation.

Tables 7 and 8 show the frequency of consumption for fizzy and energy drinks and sweets and chocolate, which are common sources of high amounts of sugar in the diet.

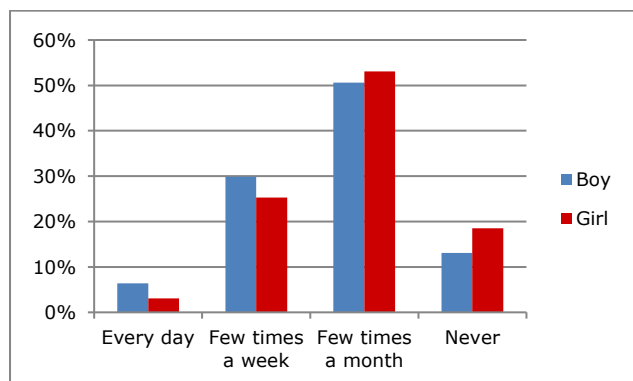
Table 7: Fizzy drink and energy drink consumption

Frequency of fizzy drinks and energy drinks consumption	Pupils	Percentage
Every day	58	4.9%
A few times a week	327	27.8%
A few times a month	607	51.6%
Never	185	15.7%

Boys were more likely than girls to drink fizzy drinks every day or a few times a week. Even so, boys' sweets and chocolate consumption was almost identical to that of girls.

²⁸ Ozcan, B. et al. (2017). Op. cit.

Figure 3: Fizzy drink and energy drink consumption by sex



Most children consumed sweets and chocolate at least a few times a month, most noting that they had some a few times a week.

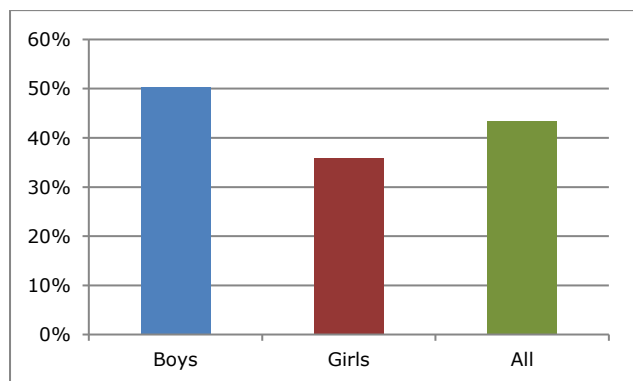
Table 8: Sweets and chocolate consumption

Frequency of sweets and chocolate consumption	Pupils	Percentage
Every day	189	16.1%
A few times a week	699	59.7%
A few times a month	269	23.0%
Never	14	1.2%

Alcohol

A total of 506 pupils (43.5%) said they had tried an alcoholic drink (excluding communion wine). As can be seen in Figure 4, boys were more likely to have tried an alcoholic drink than girls.

Figure 4: Number of pupils who have tried alcohol



Weight

We also asked pupils to consider their weight and Table 9 shows the proportion of pupils in Year 6 who considered themselves to be under or overweight.

Table 9: Perceived weight of year 6 pupils

Self-perceived weight	Pupils	Percentage
Underweight	101	8.9%
Normal weight	859	75.7%
Slightly overweight	161	14.2%
Very overweight	14	1.2%

Exercise

It is recommended that children should aim to be physically active for at least 60 minutes every day of the week. A total of 121 pupils (10.5%) met this recommendation every day of the week; 574 pupils (49.9%) met the recommendation on three days or fewer each week. Meanwhile, 52 pupils (4.5%) said they were not physically active on any day of the week.

Figure 5: Number of days engaging in physical activity lasting 60 minutes or longer

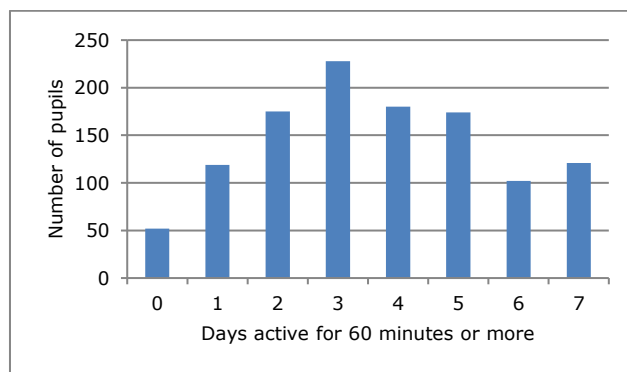
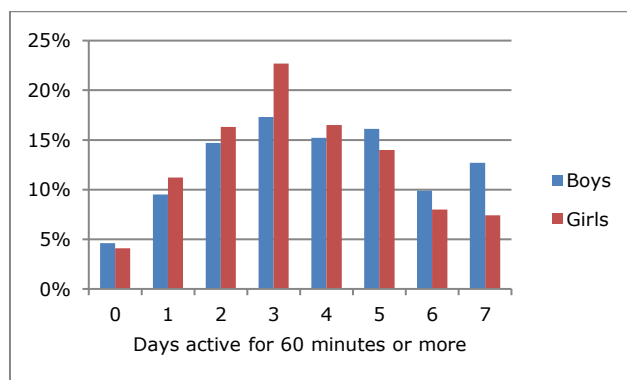


Figure 6 shows days that children spend active peak at around three days per week. Boys tended to be active on more days than girls. On average boys were active on 3.8 days compared with girls who were active on 3.5 days.

Figure 6: Number of days engaging in physical activity lasting 60 minutes or longer split by sex



Pupils were asked to think about their own activity levels and report how active they thought they were (Table 10). Most children thought of themselves as active to some degree.

As with days active per week, boys were more likely than girls to consider themselves 'very active' with 55% reporting this compared with 45% of girls.

Table 10: Pupils' perceived activity levels

How active do you consider yourself to be?	Pupils	Percentage
Very active	571	49.4%
Moderately active	559	48.4%
Not at all active	25	2.2%

Importance of being active

Further analysis of physical activity revealed that it was positively associated with various other aspects of children's lives. The analysis in the table below compares children who considered themselves to be 'very active' with those who thought of themselves as 'not at all active'.

We found that those who reported being very active do better across a range of areas.

Table 11: Physical activity status and other questionnaire answers comparison

	Very active	Not at all active
'Thriving' on the Cantril Ladder scale (measuring life satisfaction)	84%	50%
Perceive themselves to be overweight	8%	36%
Report eating an 'unhealthy' or 'very unhealthy' diet	3%	36%
Eat at least 5 portions of fruit and veg a day	38%	12%
Eat sweets or chocolate every day	14%	36%
Consume fizzy/energy drinks every day or a few times a week	29%	44%
Reported being bullied	50%	60%
Often argue with parents	8%	20%
Often feel lonely	14%	20%
Wouldn't talk to adult if they had a problem	23%	40%

Mean overall happiness for those who described themselves as 'very active' was 8.8. This compared with 7.7 for those who described themselves as 'not at all active'.

Key points

1. Parents and carers will typically have a strong influence over the components of children's diets, and young children will often model their parents' diets. This highlights the need to consider parents and carers in policies aimed at promoting healthier diets.
2. In West Sussex, only three in ten Year 6 children were meeting the recommended 'five-a-day' portions of fruit and vegetables.
3. Nonetheless, more than nine out of ten children thought that they had a healthy or very healthy diet.
4. One sugary soft-drink contains more than the recommended daily allowance of sugar for children who are 10 or 11 years old. In West Sussex, around three out of ten children reported drinking fizzy drinks at least a 'few times a week'.
5. Although boys were slightly less likely to report making healthy food and drink choices than girls, they were also more likely to be more active more often than girls, reflecting national research.²⁹
6. Sport England's research found that levels of activity were positively associated with happiness.³⁰ A similar association was found locally in this survey.
7. In the survey, it was found that levels of activity were associated with a range of positive aspects in children's lives.
8. Activity levels were found to be a part of an overall more healthy lifestyle. Children who were active were more likely to eat their five portions of fruit and vegetables a day and less likely to consume sugary drinks or snacks.
9. Active children were also less likely to consider their diets as unhealthy or view themselves as overweight.
10. The national Childhood Measurement Programme found that 28.5% of Year 6 children in West Sussex were overweight or obese. However, children's own perception of their weight tended to underestimate their actual weight. In this survey, 15.4% considered themselves to be either 'slightly' or 'very' overweight.³¹

²⁹ Sport England. (2018). Active Lives Children and Young People Survey.

³⁰ Sport England. (2018). Op. Cit.

³¹ These terms were used in the questionnaire as a proxy for 'overweight' and 'obese'.

4 Wellbeing, emotional health and life satisfaction

Wellbeing

The Children's Society defines the concept of 'wellbeing' as covering a range of both objective indicators and personal judgements about people's own lives. They cite the ONS, UNICEF and Bradshaw and how they have used multi-aspect indicators to evaluate wellbeing. Objective measures might include health and the local environment, whereas subjective measures might include how people feel about their life as a whole or its constituent parts.

The Children's Society developed the Good Childhood Index to measure various aspects of children's lives as well as a single overall measure of life satisfaction.

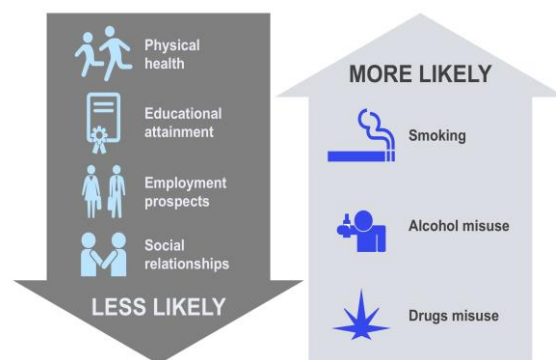
The most recent figures published in the index (2018) show that children are happiest with family relationships and least happy with their school and appearance.³² Family relationships score a mean value of 8.4 out of 10 while school and appearance score a mean value of 7.2 and 7.3 out of 10 respectively. Indeed, there was no significant change in happiness with school or family since the first survey in 2009-2010. In terms of appearance over time, boys were significantly happier than girls across all surveys.³³

Mental health

Fifty percent of those with lifetime mental illnesses first experience symptoms before the age of 14. For anxiety specifically, the median age of onset is as early as 11.³⁴ Nationally, nearly one in ten school-aged children (9.2% England; 8.4% West Sussex) suffer from a clinically diagnosable mental illness.³⁵

Poor mental health is associated with a range of poor health and wellbeing outcomes.³⁶

Health and wellbeing outcomes associated with poorer mental health³⁷



Life satisfaction and mental health

The Millennium Cohort Study found that there was a strong association between life satisfaction and depressive symptoms. When asked about satisfaction with life as a whole, boys were significantly happier than girls (based on the ONS measure used in Measuring National Wellbeing Programme for 10 to 15-year olds).³⁸ While girls had lower life satisfaction, they also displayed higher depressive symptoms, meanwhile boys had greater emotional and behavioural difficulties.

Research by The Children's Society also found an association between low levels of life satisfaction and high levels of depressive symptoms. They noted that children may report positive subjective wellbeing regardless of whether they display mental health difficulties. Furthermore, they found that there is a cumulative effect of disadvantage and life satisfaction – the more individual disadvantages experienced, the lower the life satisfaction reported.

Emotional and behavioural difficulties are likely to be associated with other negative aspects of children's lives. For example, children with lower life satisfaction, and those with higher emotional and behavioural difficulties and depressive symptoms, were less likely to be frequently physically active than other children.

Emotion regulation

Young people may use various ways to deal with their emotions, and one such method is expressive suppression. It can be thought of as attempting to inhibit the effect of external cues on internal and external

³² The Children's Society. (2018). The Good Childhood Report. London: The Children's Society.

³³ The Children's Society. (2017). The Good Childhood Report. London: The Children's Society.

³⁴ Kessler, R. et al. (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey replication. Arch Gen Psychiatry. 2005;62(6), 593-602.

³⁵ Public Health England. (2015). Fingertips.

³⁶ Public Health England. (2016). The Mental Health of Children and Young People in England.

³⁷ Image courtesy of Public Health England.

³⁸ Cited in the Children's Society. (2018). Op. cit.

states.³⁹ Expressive suppression is associated with increased depressive symptoms. The habitual use of this strategy is considered ineffective in reducing negative emotions while increasing physiological arousal and cognitive load. It may also cause rumination where the person repetitively focuses their attention on their symptoms.⁴⁰ A more favourable technique has been defined as cognitive reappraisal, which occurs as the subject tries to reframe negative input into less distressing modes; in essence, learning to view the world more positively.

Resilience

PHE note that resilience can be an important factor in improving young people's wellbeing. It can comprise such things as self-regulation skills, achievement, and a belief that life has meaning.⁴¹

Survey Results

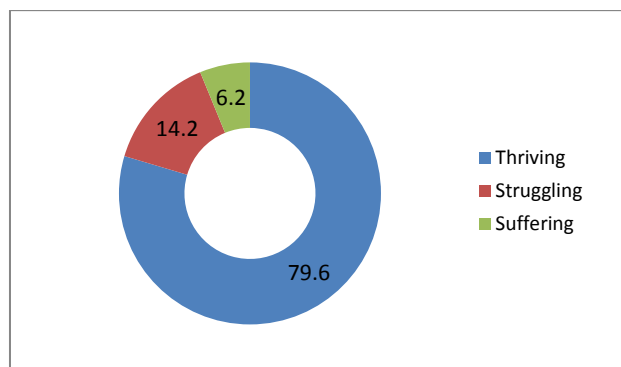
Wellbeing

The Cantril Ladder is a subjective wellbeing measure that asks pupils to rate their current wellbeing on a ladder from 0 (the worst possible life) to 10 (the best possible life). The average score among Year 6 pupils in West Sussex was 7.8. The lowest score was 1 and the highest score was 10.



The Cantril Ladder can also be categorised into three distinct groups: 'suffering' (0 to 4), 'struggling' (5 or 6) and 'thriving' (7 and above). Figure 7 shows the number of pupils in each of the three Cantril groups. Nearly eight out of ten Year 6 pupils in West Sussex are thriving.

Figure 7: Percentage of pupils in each Cantril Ladder group

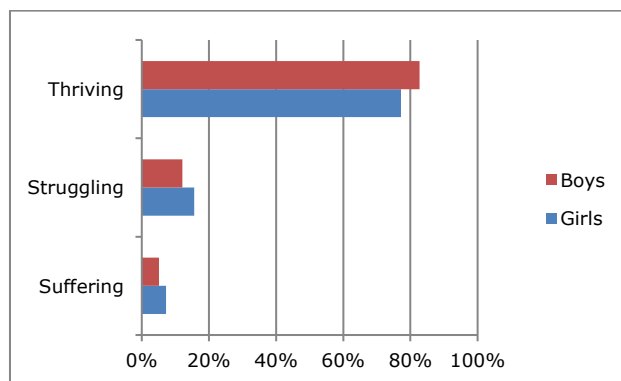


Cantril Ladder score by sex

When analysing these groups by sex, boys were slightly more likely than girls to be in the thriving group (83% v 77%) and, by contrast, girls were slightly more likely to be in both the struggling and suffering groups, though these differences were not statistically significant.

This is reflected in the mean scores: boys scored an average of 7.93 compared to girls' score of 7.77.

Figure 8: Percentage of pupils in each Cantril Ladder group by sex



Poorer wellbeing and its associations

Those in the lowest wellbeing score category (the 'suffering' group) tend to do less well than others across a range of indicators. They are more likely to have poorer diets, do less exercise and are less likely to report being of a 'normal' weight. They are also more likely to report being sad, lonely and less likely to report having a sense of achievement as well as being more likely to argue with parents and be bullied than children with higher wellbeing scores.

³⁹ Joormann, J. and Stanton, C. (2016). Examining emotion regulation in depression: A review and future directions. *Behaviour Research and Therapy*, 86 (2016), 35-49.

⁴⁰ Gross, J.J. and John, O.P. (2003). Individual differences in two emotion regulation processes: Implications for affect,

relationships, and well-being. *Journal of Personality and Social Psychology*, 85, 348-362.

⁴¹ Public Health England. (2016). Op. cit.

Life satisfaction

We also asked pupils to complete a five-item measure of life satisfaction called the Students' Life Satisfaction Scale (Huebner, 1991).⁴²

The following are based on the validated Modified Huebner Students Life Satisfaction Scale. A total score is calculated by summing the individual items. The five items are scored from 0 (strongly disagree) to 4 (strongly agree), with the exception that the item 'I wish I had a different life' is reverse scored (0 for strongly agree and 4 for strongly disagree). An overall life satisfaction score is obtained by summing the scores of each of the five items, with higher scores indicating higher life satisfaction.⁴³

In West Sussex, the average life satisfaction total score was 17.8 out of 20. The lowest total score was 9 and the highest score was 20 out of 20.

On average, boys' total score was 16.99. For girls, this was 16.81.

Sense of achievement

We asked pupils to think about their own achievements and reflect on how often they did something that gave them a sense of achievement. Fifty percent of pupils said they did something that gave them a sense of achievement either often or very often, as illustrated in Table 12.

Table 12: How often do you do something that gives you a sense of achievement

How often	Pupils	Percentage
Very often	152	13.3%
Often	418	36.7%
Sometimes	436	38.3%
Rarely	121	10.6%
Never	12	1.1%

Of the pupils who answered this question, nearly all of them (99%) said they did something that gave them a sense of achievement even if it was rare.

Those who were 'suffering' on the Cantril ladder measure were more likely to never/rarely feel a sense of achievement (31%), compared to those who were 'struggling' (24%) or 'thriving' (8%).

Strengths

We asked pupils to consider their 'strengths' as the best parts of their personality such as being kind, creative, passionate, curious, optimistic, honest and enthusiastic.

Pupils were asked to give a score between 0 (strongly disagree) and 4 (strongly agree) to say how much they agreed or disagreed with statements about their ability to use their strengths, the impact of their strengths on relationships with others and impact of strengths on school work. The scores for each statement are summed and an overall strengths score is calculated. The average overall strengths score in all schools was 9.7 out of 12.

Girls and boys scored, on average, almost exactly the same.

Emotion regulation

Pupils were asked to complete a 10-item scale about their emotions, which is based on the Emotion Regulation Questionnaire (Gullone and Taffe, 2011).⁴⁴ The scale measures how well respondents regulate their emotions through two strategies: cognitive reappraisal and expressive suppression.⁴⁵

In this survey, pupils were asked to say how much they agreed or disagreed with each statement (item). The scores for items which measure cognitive reappraisal and expressive suppression are summed and an average score for each strategy was calculated.

In all schools, the average total score for cognitive reappraisal was 21.7 out of 30. The average total score for expressive suppression was 11.8 out of 20.

Emotion regulation by sex

There were only slight differences between boys and girls in how they dealt with their emotions. There were no significant differences between girls' and boys' scores, overall.

Table 13: Average scores for cognitive reappraisal and expressive suppression by sex

	Boys	Girls
Cognitive reappraisal average	21.68	21.93
Expressive suppression average	11.84	11.64

⁴² Huebner, E. S. (1991). Initial development of the Students' Life Satisfaction Scale. *School Psychology International*, 12, 231-243.

⁴³ The Modified Huebner Students Life Satisfaction Scale has been validated for use for children aged 7 onwards. The Children's Society found the scale to be a reliable and stable measure, and that the scale could be reduced from 7 to 5 items without any substantial loss of reliability, which is what is used here.

⁴⁴ Gullone and Taffe. (2011). The Emotion Regulation Questionnaire for Children and Adolescents (ERQ-CA): A Psychometric Evaluation. *Psychological Assessment*, Vol. 24, No. 2, pp.409-417.

⁴⁵ Cognitive reappraisal is defined as reconceptualising problems to view them more positively and expressive suppression is burying negative feelings and using avoidance strategies.

Emotion regulation, life satisfaction and happiness

Predictive models were developed to ascertain how these regulation strategies interacted with wellbeing.

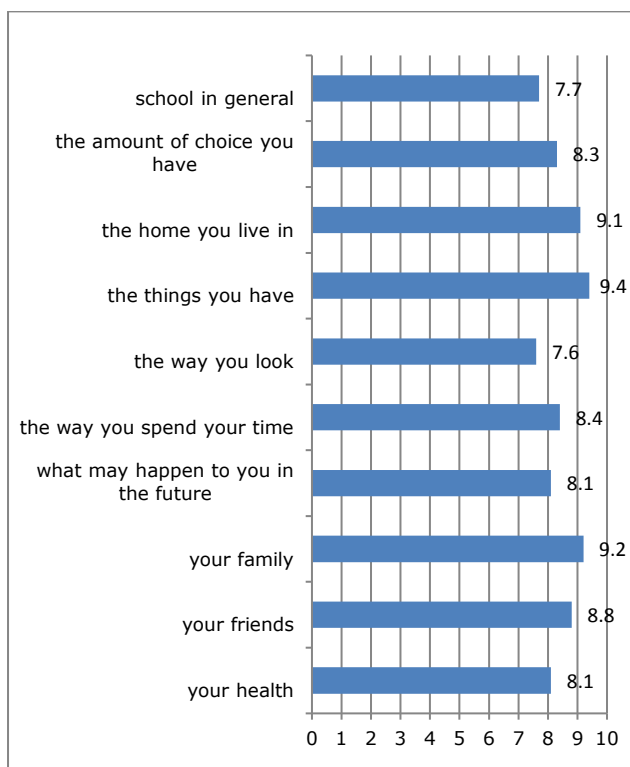
An increase in the cognitive reappraisal score was found to contribute to a rise in both life satisfaction and overall happiness (see below). Similarly, an increase in expressive suppression score was found to contribute to a decrease in both life satisfaction and overall happiness.

Happiness

Pupils were asked to rate their happiness on aspects of their lives such as health and appearance, the way they spend their time, and what they think about the future. There are 10 items to rate from 0 (very unhappy) to 10 (very happy).

An overall score of happiness is only calculated for those pupils who answered all 10 questions on this scale. Therefore, the results represent 1,112 pupils (94% of all pupils) who gave 10 responses. The average overall happiness score for all schools is 8.5 out of 10. Figure 9 shows the average score for each of the 10 happiness scale items. Children's happiness with school in general and the way they look were the lowest scoring sub-scales (7.7 and 7.6 respectively).

Figure 9: Average happiness scores

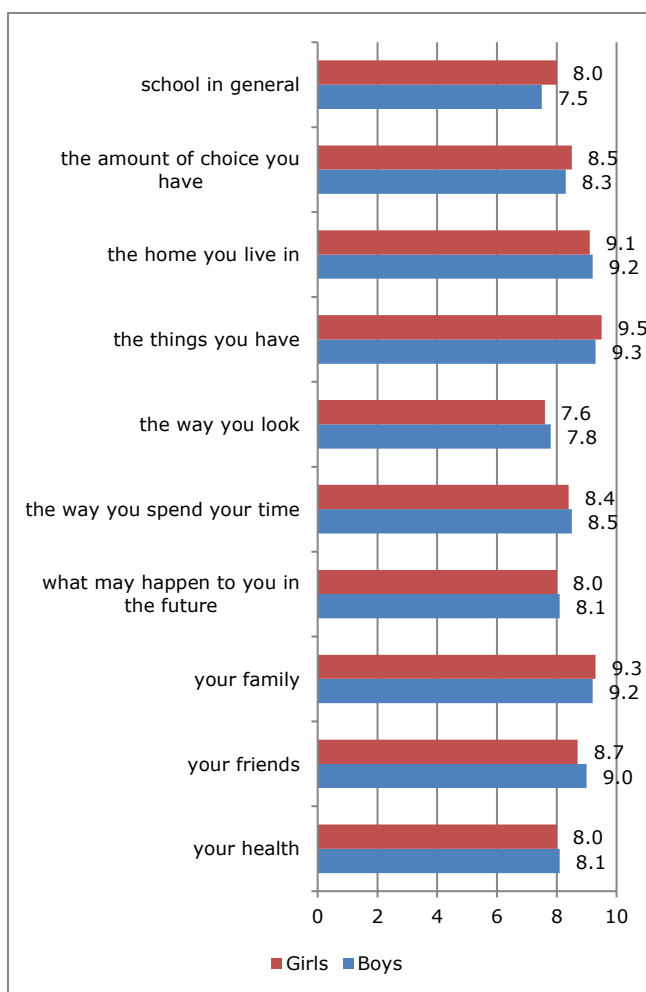


Happiness by sex

Figure 10 explores average happiness scores for each item by sex. The largest difference was for happiness with school in general where boys scored an average of 7.5 compared to girls who scored 8. The next largest difference was for happiness with friends where the boys scored 9 and the girls, 8.7.

Mean overall happiness for both boys and girls was 8.5. Average scores show that female pupils scored 'the way you look' lowest, whereas boys rated, on average, 'school in general' the lowest. Both sexes rated 'the things you have', on average, as the highest as illustrated in Figure 10.

Figure 10: Average happiness scores by sex



Key points

1. Fourteen percent of West Sussex children fall into the category 'struggling' (16% of girls and 12% of boys), on the Cantril ladder self-reported wellbeing scale. A further 6% fall into the category 'suffering' (7% of girls and 5% of boys).
2. Poor diet, inactivity and being overweight were more prevalent among those in the 'suffering' group. Meanwhile, being sad, lonely and bullied were also common features of this group's lives.
3. Twelve percent of children in West Sussex said they 'rarely' or 'never' do anything which gives them a sense of achievement. These children were more likely to be in the 'suffering' category on the Cantril ladder scale.
4. Different emotional regulation strategies (cognitive reappraisal and emotional suppression) can lead to either increases or decreases in emotional wellbeing.
5. Boys and girls both scored differently on certain sub-scales, though happiness with 'the way you look' scored lowest for all children combined.
6. Even so, overall happiness was the same for both boys and girls.

5 Devices and internet use

Devices children own and their use of the internet

It is thought that around two in five children aged between 8 and 11 have their own smartphone and around a half have a tablet.⁴⁶

Meanwhile, the amount of time children spend on the internet has increased year-on-year over the last decade. In 2017 children aged between 8 and 11 spent 13 hours 24 minutes online a week compared with 7 hours 48 minutes in 2007.⁴⁷

A similar year-on-year increase is apparent for gaming with 8 to 11-year olds spending 10 hours per week playing games on an electronic device in 2017 compared with 7 hours 42 minutes in 2010.

Children aged between 8 and 11 spend 2 hours 36 minutes online at the weekend and 1 hour 36 minutes on school days.

In terms of gaming, they spend 2 hours 6 minutes playing computer games at the weekend and 1 hour 12 minutes on school days. The majority (68%) play games online.⁴⁸

Boys tend to spend more time online and playing games in a typical week than girls (8-11-year olds). Meanwhile, girls are likely to spend more time using their mobile phones than boys.⁴⁹

The time children spend watching television has fallen among 8 to 11 years olds over the last decade, albeit slightly. In 2007 children aged 8 to 11 spent 15 hours 24 minutes watching television in an average week. By 2017 this had fallen to 13 hours 54 minutes.

Social media

Most social network sites have minimum age limits for service users. For Facebook, Twitter, WhatsApp, Snapchat and Instagram, the minimum age is 13 years (see www.net-aware.org.uk/networks). Even so, nearly a quarter (23%) of children aged between 8 and 11 are thought to have a social media profile.⁵⁰

Some research has suggested that the more time children (10-15-year olds) spend on social media, the less satisfied they are with various aspects of their lives such as their school and school work, their appearance, family and life in general, which will have a negative impact on their life satisfaction.⁵¹ The only area of exception is with

friendships. Girls tend to suffer more adverse effects than boys.

The Children's Society's research found similar outcomes: 'high intensity' use of social media (4 or more hours per day) was associated with lower levels of life satisfaction with family, appearance, school and school work, but not friends.⁵² The same research found that girls were both more likely to be users of social media than boys and twice as likely to be 'high intensity' users.

High intensity social media users tend to be less well supported by their families. Low intensity usage (less than an hour a day on school days) does not appear to be associated with lower self-perceived wellbeing.

Survey Results

Access to electronic devices

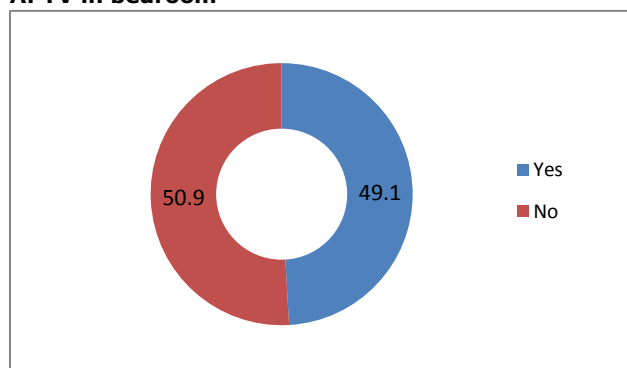
As part of the survey we asked pupils to tell us about their use of electronic devices and how much time they spent doing certain activities.

Figure 11 shows the proportion of Year 6 pupils with access to their own TV in their bedrooms (A), a tablet, laptop or computer (B), or a mobile phone (C).

As can be seen, children were most likely to have access to a tablet, laptop or PC (84%) and least likely to have a television in their bedroom (49%).

Figure 11: Percentage of pupils with access to devices

A: TV in bedroom



⁴⁶ OFCOM (2017). Children and Parents: Media Use and Attitudes.

⁴⁷ OFCOM (2017). Op. Cit.

⁴⁸ OFCOM (2016). Children and Parents: Media Use and Attitudes.

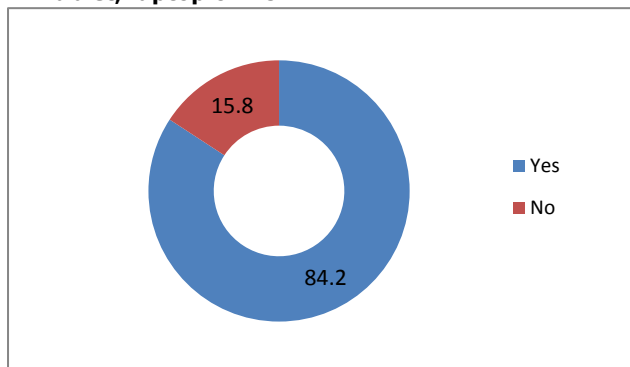
⁴⁹ OFCOM (2017). Op. Cit.

⁵⁰ OFCOM (2017). Op. Cit.

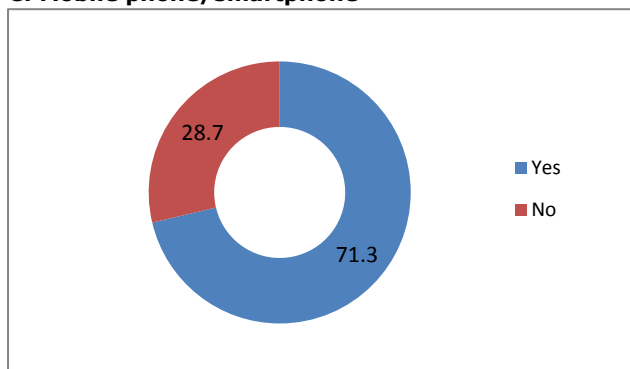
⁵¹ McDool, E., Powell, P., Roberts, J. and Taylor, K. (2016). Social Media Use and Children's Wellbeing. IZA Discussion Paper No. 10412. Available at SSRN: <https://ssrn.com/abstract=2886783>.

⁵² The Children's Society. (2017). The Good Childhood Report. London: The Children's Society.

B: Tablet, laptop or PC



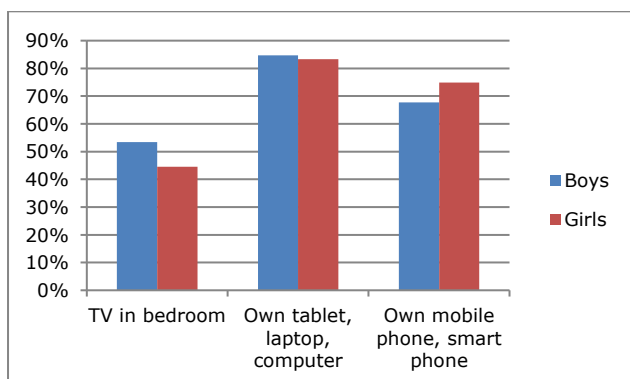
C: Mobile phone/smartphone



Ownership of various electronic devices by sex

As can be seen from Figure 12, girls and boys were equally likely to have their own tablet, laptop or computer. Meanwhile, boys were more likely to have a TV in their bedroom than girls (53% v 44%) and girls were more likely to own their own mobile phone or smartphone (75% v 68%).

Figure 12: Children who own various electronic devices by sex



Time spent on the internet and gaming

Gaming

Children reported spending, on average, 112 minutes playing games on an electronic device on a typical day. Responses of over six hours (360 minutes) per day were removed prior to analysis (n=65). Not all children said they used electronic devices for gaming on an average day; 2.2% of those included said they spent no time doing this activity.

A total of 672 pupils (64.4% of those included) said they spent some time gaming but not more than two hours on an average day.

Internet use

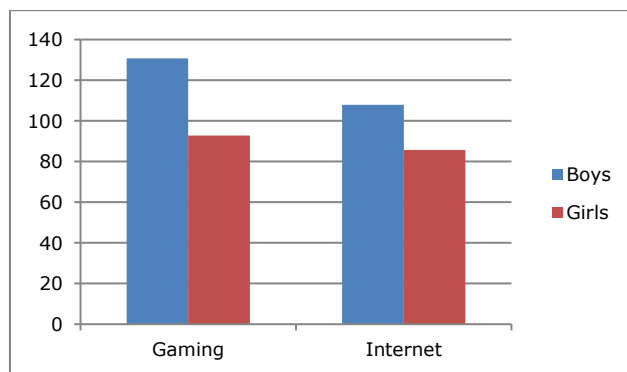
Pupils reported spending, on average, 97 minutes using the internet (on any device) on a typical day. Again, responses of over six hours (360 minutes) per day were removed prior to analysis (n=80). A small proportion of pupils (3.6%) said they did not spend any time on the internet on electronic devices on a typical day.

A total of 700 pupils (78.9% of those included in this analysis) said they spent some time using the internet but not more than two hours on an average day.

Gaming and internet use by sex

On average boys tended to spend more time on both gaming and the internet than girls.

Figure 13: Average minutes per day spent gaming and on the internet by sex



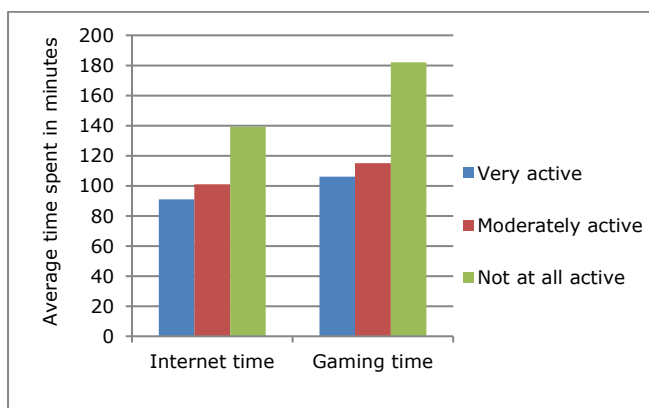
Boys spent an average of 131 minutes on gaming per day compared with girls who spent an average of 93 minutes.

In terms of the average time spent using the internet per day, boys spent 108 minutes compared to 86 minutes for girls.

Gaming and internet use by levels of activity

The more time that children spend either gaming or on the internet in general, the less time they have available to engage in physical activities. Figure 14 shows the average time that children report spending playing games or on the internet by how active they report being. The results show that the least active children spend the most time, on average, both gaming and on the internet.

Figure 14: Average time spent gaming or on the internet by activity levels



with online in person compared with 29% of boys who reported this.

Key points

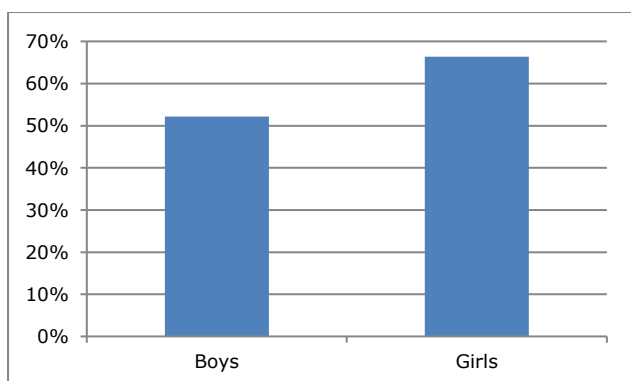
1. Children in West Sussex are more likely to have access to electronic devices, such as smartphones and tablets, than children elsewhere in the UK.
2. Children are more likely to have access to a tablet, laptop or PC than have a smartphone or television in their bedroom.
3. Boys in West Sussex spent on average over 2 hours per day playing games on their electronic devices; girls spent around 90 minutes.
4. Children in West Sussex spent a similar amount of time online to other children nationally.
5. The more time children spend gaming or on the internet, the less active they tend to be.
6. Despite social media having a minimum age of 13, nearly six out ten children (10 and 11 year olds) report having a social networking account.
7. One in three children do not know all the people they play games with/interact with online.

Social networking

Among Year 6 pupils completing this survey, 680 (59.4%) said they had a social networking account such as Facebook, Twitter, WhatsApp, Snapchat and Instagram.

Two-thirds of girls (66%) reported having a social networking account compared with 52% of boys.

Figure 15: Percentage of boys and girls that have at least one social networking account



Of the pupils who said they had a social networking account or who played games online, 322 (30.9%) said they did not know all of the people in person that they played games with, or were friends with, online. Girls were slightly more likely to report this than boys: 33% of girls said they did not know all the people they interacted

6 Bullying, loneliness and relationships with adults

Bullying

It is generally believed that bullying is more likely to be reported by younger children and as they get older this decreases.^{53 54} While the proportion of children reporting being bullied decreases with age, the proportion of perpetrators rises.⁵⁵

More than one in four (26.6%) of all school-aged children are thought to have been bullied either 'a lot' or 'always'.⁵⁶ In Year 6, the figure is 22%.⁵⁷

For children with a disability, one in three report being bullied a lot or always. Boys are more likely to be victims of bullying than girls but at the same time they are more likely to be perpetrators.

Children living in single parent families are more likely to be bullied and have behavioural issues than other children at the age of 11.⁵⁸

Being bullied can have various negative outcomes for children and young people. For example, being bullied at 11 is negatively associated with children's health outcomes.⁵⁹

Social isolation and loneliness

Some research suggests that as many as one in five children aged 7 to 12 feel lonely either sometimes or often.⁶⁰ Younger children tend to report higher levels of loneliness than older children. Of children aged 10 to 12 years, 14.0% reported that they often felt lonely compared with 8.6% of children aged 13 to 15 years of age.⁶¹

Children who are dissatisfied with their health were more likely to say they 'often' felt lonely.⁶²

Meanwhile, another study of British children found that both primary and secondary-aged children who were socially isolated were more likely to suffer from mental health issues.⁶³

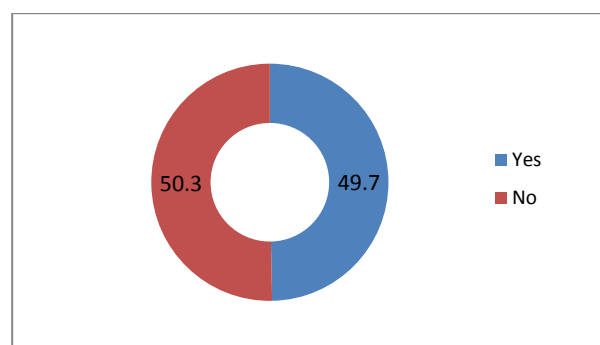
Poor relationships may also affect loneliness. Children who report low levels of satisfaction with their relationships with family and friends were also more likely to report feeling lonely 'often'.⁶⁴

Survey Results

Bullying

A half of all Year 6 pupils said that they had been bullied in the last year.

Figure 16: Percentage of pupils bullied in past year



Of the pupils who said they had been bullied in the past year, 13% reported that someone had put something hurtful online or in a text message about them (cyber bullying) and 78% reported that someone said something hurtful to them (verbal bullying). Finally, 38% of pupils reported that someone hit or pushed them (physical bullying). Some pupils experienced more than one type of bullying.

⁵³ Anti-Bullying Alliance (2016). Wellbeing Indicators: Wave one report. Anti-Bullying Alliance.

⁵⁴ Green, R., Collingwood, A. and Ross, A. (2011). Characteristics of Bullying Victims in Schools. London: National Centre for Social Research.

⁵⁵ Anti-Bullying Alliance (2016). Op. cit.

⁵⁶ Anti-Bullying Alliance (2016). Op. cit.

⁵⁷ Anti-Bullying Alliance (2016). Op. cit.

⁵⁸ Ozcan, B. et al. (2017). Children's Wellbeing and Development Outcomes for Ages 5, 7 and 11 and their Predictors. London: LSE.

⁵⁹ Ozcan, B. et al. (2017). Op. cit.

⁶⁰ Qualter, P. et al. (2015). Loneliness across the Life Span. Perspectives on Psychological Science. 10, 250-264.

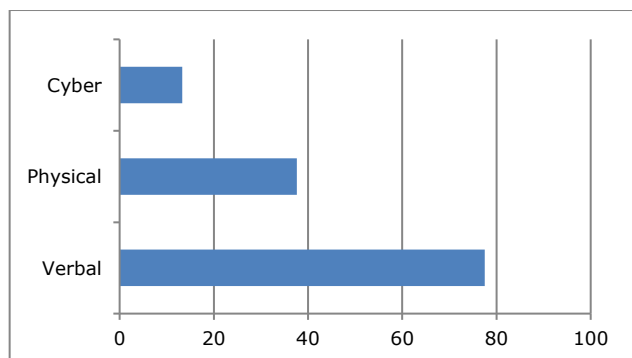
⁶¹ ONS. (2018). Children's and Young People's Experiences of Loneliness: 2018. Office for National Statistics.

⁶² ONS. (2018). Op. cit.

⁶³ Matthews, T. et al. (2015). Social isolation and mental health at primary and secondary school entry: a longitudinal cohort study. Journal of the American Academy of Child Adolescent Psychiatry. 54(3), 225-232.

⁶⁴ ONS. (2018). Op. cit.

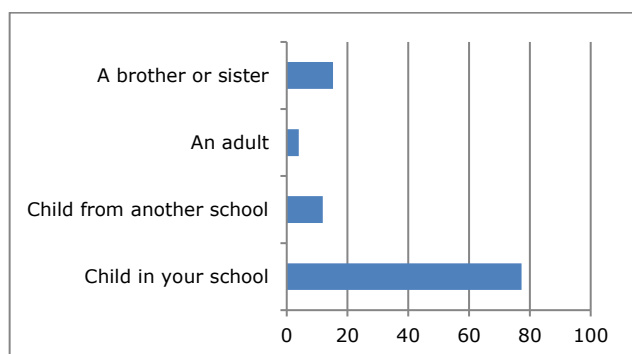
Figure 17: Percentage of pupils who were bullied by type of bullying



Note: only those who said they were bullied in the past year are included in this figure.

Figure 18 shows responses to the question, if you have been bullied in the past year, who did the bullying. Most bullying was perpetrated by a child from the victim's school (77.3%).

Figure 18: Percentage of pupils who were bullied grouped by perpetrator

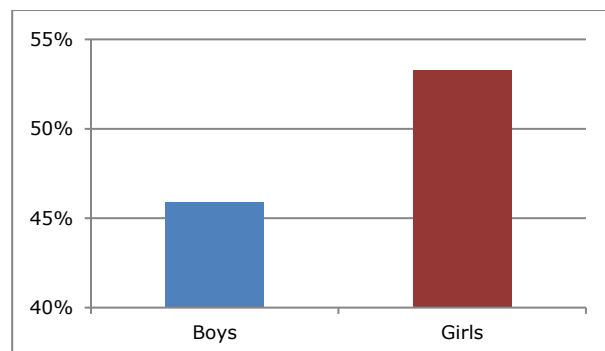


Note: only those who said they were bullied in the past year are included in this figure.

Bullying by sex

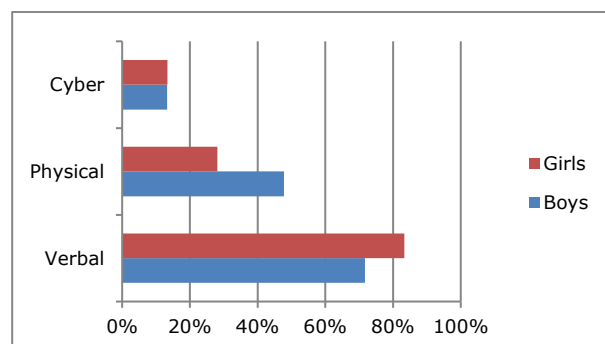
Girls were more likely to report being bullied than boys (53% and 46%).

Figure 19: Percentage of boys and girls bullied in past year



In terms of the type of bullying experienced, boys were significantly more likely to be the victims of physical bullying (48% of boys v 28% of girls), while girls were more likely to be verbally bullied (83% of girls v 72% of boys). Both girls and boys were equally likely to experience cyberbullying.

Figure 20: Percentage of pupils who were bullied grouped by type split into sexes



Note: only those who said they were bullied in the past year are included in this figure.

Arguing with parents

We also asked pupils if they argued with their parents, and the responses are given in Table 14. Seven out of ten pupils (69.7%) said they sometimes argued with their parents. Predictive modelling found that arguing with parents was one of the strongest contributors to poor emotional wellbeing in this sample.

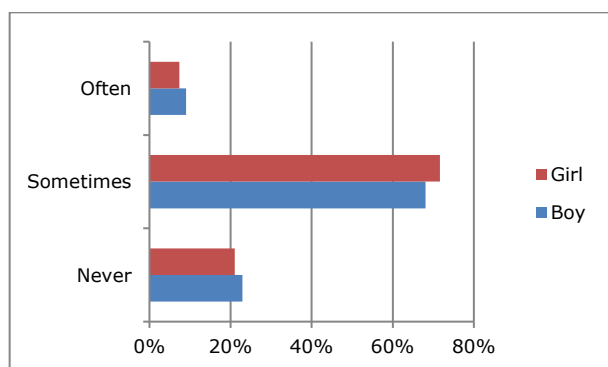
Table 14: Arguing with parents

Argue with parents	Pupils	Percentage
Often	95	8.2%
Sometimes	806	69.7%
Never	256	22.1%

Arguing with parents by sex

Boys were slightly more likely than girls to report 'often' arguing with parents. When looking at those who argued with their parents and who did not by combining the 'sometimes' and 'often' responses, both sexes equally likely to argue with parents.

Figure 21: Percentage of girls and boys who argue with parents split by sex



Feeling lonely or sad

Table 15 shows how frequently pupils said they felt lonely or sad. In general, most children reported feeling sad at least sometimes (94%). They were less likely to report being lonely, with a third saying they 'never' felt lonely.

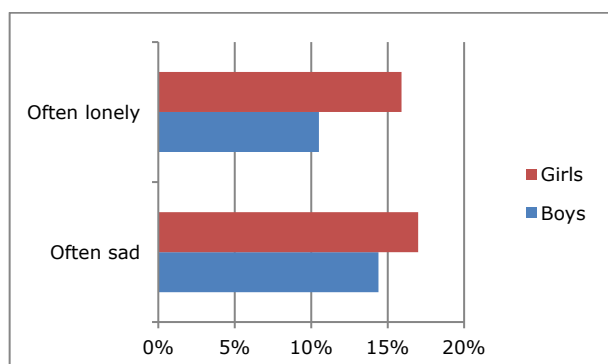
Table 15: Feeling lonely or sad

How often	Lonely	Sad
Often	157 (13.5%)	186 (16.1%)
Sometimes	616 (53.1%)	901 (77.8%)
Never	388 (33.4%)	71 (6.1%)

Feeling lonely or sad by sex

As illustrated in Figure 22, a higher proportion of girls reported being lonely or sad 'often' (16% and 17%) than boys (11% and 14%).

Figure 22: Percentage of boys and girls reporting feelings of loneliness and sadness

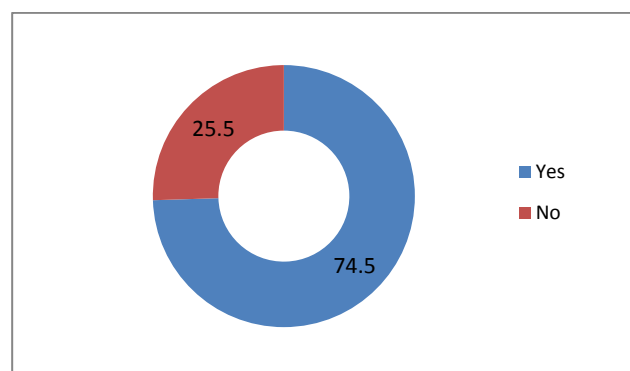


Support from adults

Finally, we asked pupils about their access to support from adults and asked if they ever talked to their parents or teachers if they had any problems or worries. Three-quarters (74.5%) said they had.

Girls were slightly more likely than boys to report talking to their parents or teachers (77% v 73%).

Figure 23: Percentage of pupils who reported that they had sought support from an adult



Meanwhile, 296 (25.5%) pupils said they did not ever talk to their parents or teachers if they had problems or worries.

Key points

1. A half of all Year 6 pupils said that they had been bullied in the last year, around double the prevalence rate of the equivalent population nationally.
2. Girls were more likely to report being bullied than boys (53% and 46%).
3. Most bullying was verbal in nature (78%).
4. Boys were more likely to be physically bullied than girls and girls were more likely to be verbally bullied than boys.
5. Most bullying was perpetrated by a child from the same school as the victim (77%).
6. Roughly 8% of West Sussex children said they often argue with their parents; this was shown in statistical modelling to be a significant contributor to poor emotional wellbeing.
7. Overall, 13% of children reported feeling lonely often and 16% often felt sad.
8. A higher proportion of girls than boys reported feeling lonely or sad often.
9. One in four children said they did not confide in adults (either parents or teachers) if they were having troubles or needed support.

7 Conclusion

This survey aimed to provide a picture of the health and wellbeing of 10 to 11-year-old children in West Sussex.

To this end we set out to develop a methodology that was repeatable, reliable and valid. We assessed ready validated mental health and wellbeing measures and developed associated lifestyle questions. Various research methods were considered.

The Children's Society suggest that obtaining views directly from children is the 'gold standard'. Additionally, self-completion questionnaires were used for most of the validated measures that we found that were suitable to use with 10 and 11-year olds. This suggested that our survey should use a questionnaire-based method of data collection.

Even though some of the questions we used were from already validated scales and measures, we used a pilot survey to help us to refine and validate the general methodology, the questionnaire and the questions themselves.

We found a good level of consistency when comparing the answers given in the pilot survey questionnaire with the actual survey questionnaire. Additionally, only a small number of questions were left unanswered by respondents, indicating a good level of understanding of the questions. These factors suggested that our questions had high levels of validity and reliability.

National research has found that poorer wellbeing is associated with a number of factors not generally covered by validated wellbeing measures. Some of these we were able to ask in our questionnaire such as whether the children considered themselves to be overweight, whether they lived in a single parent household, whether they argued with their parents, whether they had been the victim of bullying and whether they had a lack of friendships.

Any of these factors could mean that a child is at risk of poorer wellbeing. Furthermore, the Children's Society found that there is cumulative effect of disadvantage on life satisfaction: the more disadvantages experienced, the lower the life satisfaction. Of course, not all factors can be changed or influenced by public health interventions. A good example is whether children live in a single-parent household. Although we cannot influence this, we can be aware that it is one of a number of factors to look out for that might contribute to a risk of poorer wellbeing.

On the other hand, other research has suggested that positive wellbeing is associated with other factors that we were able to ask children about in the survey. These included emotional regulation, awareness of strengths, having a sense of achievement, being active, engaging in meaningful activities and having good social connections.

Factors that we could ask children about that were associated with mental health issues specifically were similar to those associated with poorer wellbeing: living in a single parent household; arguing with parents and being bullied, specifically by siblings. Allied to this, PHE note that poorer mental health can mean poorer physical health, lower educational attainment, poorer employment prospects and poorer social relationships. Meanwhile, there is an increased probability of individuals smoking and/or misusing alcohol and drugs.

What we found about wellbeing

Most children in our sample had high levels of wellbeing: eight out of ten were considered to be 'thriving'. The 20% with lower wellbeing scores (those 'struggling' (14%) and those 'suffering' (6%)) were also found to have poorer diets, be overweight, report being sad, lonely and less likely to have a sense of achievement. Additionally, they were more likely to have been bullied and to argue with their parents than those in the higher scoring group.

None of these associations are out of keeping with what is already known about children with low levels of wellbeing.

Different emotion regulation strategies were found to be associated with emotional wellbeing. As children were more likely to use cognitive reappraisal, they were also likely to display better emotional wellbeing.

Another way to consider wellbeing and life satisfaction is to measure happiness as a concept. Using our ten-point measure of happiness, we found that, overall, children were reasonably happy with their lives. There were subtle differences in the individual aspects of happiness between girls and boys. These are explored in more detail below.

Other research has suggested that the use of social media is associated with life satisfaction: the more time children spend using social media, the lower their life satisfaction. This has been found to be particularly closely associated with aspects such as school in general and school work, appearance and family and life in general. Girls were also found to be 'high

intensity' users of social media when compared with boys. In our research we found that a higher proportion of girls had a social networking account than boys (66% v 52%), even though they were below the recommended minimum age (13 years).

We also found that the children who spent the most time, on average, either gaming or on the internet were also those least likely to report being active. Clearly, children only have a limited amount of free time outside school hours to balance between various pursuits. For some, this balance could be more weighted in favour of more active pursuits.

This is important, as we also found that high levels of activity were positively associated with a range of both health and wellbeing benefits. Indeed, activity levels appeared to be a part of a 'healthy lifestyle', where those most active reported eating and drinking more healthily and were less likely to consider themselves overweight. They also tended to have higher levels of life satisfaction. Furthermore, they were less likely to feel lonely, be bullied or argue with their parents and, at the same time, were more likely to confide in an adult if they had a problem.

These findings are in keeping with national research, which suggests that active children are happier, more confident and more sociable.⁶⁵ Nearly all the children in this research reported gaining a sense of enjoyment from physical activities. Motivations for children to be active were having more friends to join in and having activities they liked to choose from. Some children said they were less active due to the lack of choice of sports or activities they might enjoy. Other research has found that enjoyment itself is the biggest driver of activity.⁶⁶

Despite the importance of physical activity, some research suggests that having a positive attitude is even more important overall in areas such as happiness and resilience than physical activity itself.⁶⁷

Sex comparisons

National research has suggested that girls are less likely to be satisfied with their lives than boys.

Boys tended to do better, on average, on our measure of life satisfaction than girls. Even so, when it came to measuring happiness as a concept, both girls and boys displayed almost identical scores on average. There were some key differences in scores on individual aspects that made up the scale used. Girls were happier than boys with school in general, the amount

of choice they had and the things they had. Meanwhile, boys were happier than girls with the way they looked and their friends.

Overall, both boys and girls scored happiness with the things they owned most highly of all aspects and the way they looked as the aspect they were least happy with.

Although these differences were apparent in some areas, overall there were fewer differences between boys and girls than we expected. It is likely, of course, that differences become more apparent as they progress through their teenage years.

Parental influence on children's lifestyles and wellbeing

As noted above, living in a single parent household and arguing with parents means a child could be more susceptible to poorer wellbeing and mental health issues.

Parents can also influence children's current and projected health. Most dietary choices, for younger children particularly, are made by parents and this can have an impact on their weight and dental health. For many, these choices are budget-driven rather than health-focused.

Parental smoking is also known to be a predictor of children starting to smoke themselves. In our sample of children, nearly a quarter (24%) said that at least one of their parents smoked. Although smoking in this age group is very rare, the children whose parents smoked are likely to be at higher risk than others of becoming addicted to smoking later in life.

⁶⁵ Public Health England. (2017). Survey of children's physical activity. PHE, Change4Life, Disney, Sport England.

⁶⁶ Sport England. (2019). Active Lives. Children and Young People Survey. Sport England.

⁶⁷ Sport England. (2019). Op cit.

Appendix I: Results tables

	Boys		Girls		All children	
	(n)	(%)	(n)	(%)	(n)	(%)
Age						
9	0	0%	1	0%	1	0%
10	329	57%	318	55%	649	56%
11	247	43%	256	45%	507	44%
12	1	0%	0	0%	1	0%
Total	577	100%	575	100%	1158	100%
Disability						
Yes	25	5%	14	3%	40	4%
No	514	94%	527	97%	1046	95%
Prefer not to say	9	2%	5	1%	19	2%
Total	548	100%	546	100%	1105	100%
Language						
English	514	92%	500	90%	1029	91%
Other language	42	8%	56	10%	100	9%
Total	556	100%	556	100%	1129	100%
Home Language Includes English						
Yes	528	95%	515	93%	1058	94%
No	28	5%	41	7%	70	6%
Total	556	100%	556	100%	1128	100%
Who lives at home with you						
Both my parents	450	77%	423	74%	884	75%
One parent and a step parent	55	9%	65	11%	124	11%
One parent	69	12%	80	14%	153	13%
A carer or carers	7	1%	5	1%	12	1%
Total	581	100%	573	100%	1173	100%
Parental employment						
Both	443	77%	430	75%	885	76%
One	123	21%	130	23%	256	22%
Neither	9	2%	10	2%	20	2%
Total	575	100%	570	100%	1161	100%
Either parent smokes						
Yes	138	24%	137	24%	282	24%
No	432	76%	431	76%	874	76%
Total	570	100%	568	100%	1156	100%
Do you usually eat breakfast?						
Yes	536	95%	527	92%	1078	93%
No	31	5%	45	8%	80	7%
Total	567	100%	572	100%	1158	100%
Portions of fruit and vegetables consumed each day						
0	16	3%	4	1%	22	2%
1	47	8%	26	5%	75	6%
2	80	14%	85	15%	169	14%
3	130	23%	130	23%	260	22%
4	137	24%	135	24%	275	24%
5	83	14%	112	20%	197	17%
6	84	15%	82	14%	172	15%
Total	577	100%	574	100%	1170	100%
Frequency of fizzy drinks and energy drink consumption						
Everyday	37	6%	18	3%	58	5%
A few times a week	173	30%	146	25%	327	28%
A few times a month	293	51%	307	53%	607	52%

Never	76	13%	107	19%	185	16%
Total	579	100%	578	100%	1177	100%

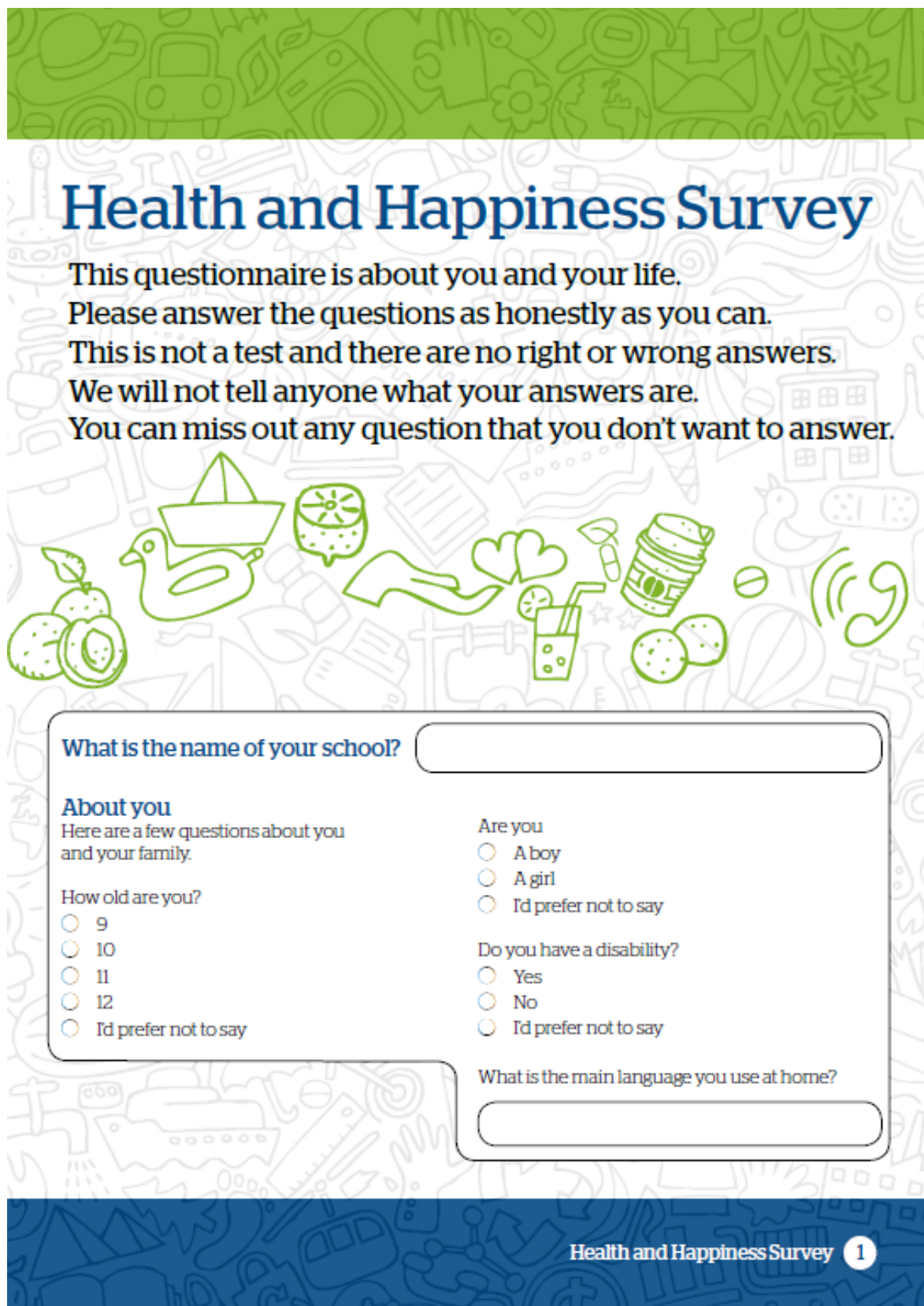
	Boys		Girls		All children	
	(n)	(%)	(n)	(%)	(n)	(%)
Happiness with aspects of life						
Unhappy (score 0-4)						
Money and possessions	10	2%	1	0%	12	1%
Family	14	2%	15	3%	32	3%
Home	15	3%	22	4%	39	3%
Friends	18	2%	29	3%	48	4%
Time use	25	4%	29	5%	55	5%
Health	29	5%	31	5%	64	6%
Choice	36	6%	31	5%	72	6%
The future	41	7%	34	6%	78	7%
School	69	12%	44	8%	119	10%
Appearance	55	10%	79	14%	144	13%
Happy (score 5-10)						
Money and possessions	561	98%	569	100%	1148	99%
Family	552	98%	557	97%	1125	97%
Home	555	97%	550	96%	1122	97%
Friends	554	97%	539	95%	1111	96%
Time use	544	96%	541	95%	1103	95%
Health	542	95%	541	95%	1096	94%
Choice	532	94%	540	95%	1086	94%
The future	529	93%	535	94%	1080	93%
School	501	88%	527	92%	1041	90%
Appearance	508	90%	487	86%	1006	88%
Total life score satisfaction						
Satisfied	525	96%	523	96%	1062	96%
Dissatisfied	23	4%	24	4%	50	4%
Total	548	100%	547	100%	1112	100%
I know how my strengths affect my relationships with my friends, family and teachers						
4 - Strongly agree	230	41%	210	38%	441	39%
3	230	41%	235	42%	472	41%
2	66	12%	68	12%	139	12%
1	18	3%	24	4%	43	4%
0 - Strongly disagree	17	3%	23	4%	44	4%
Total	561	100%	560	100%	1139	100%
I know how to apply my strengths to do well at school						
4 - Strongly agree	263	47%	308	55%	574	50%
3	210	38%	187	33%	402	35%
2	55	10%	48	9%	109	10%
1	21	4%	12	2%	36	3%
0 - Strongly disagree	10	2%	8	1%	19	2%
Total	559	100%	563	100%	1140	100%
I feel confident in my ability to use my strengths						
4 - Strongly agree	329	58%	280	50%	614	54%
3	159	28%	194	35%	359	31%
2	60	11%	61	11%	122	11%
1	13	2%	19	3%	34	3%
0 - Strongly disagree	3	1%	7	1%	14	1%
Total	564	100%	561	100%	1143	100%
Overall strength scores						

High score (6-12)	538	96%	540	97%	1090	96%
Low score (0-5)	20	4%	18	3%	44	4%
Total	558	100%	558	100%	1134	100%

	Boys		Girls		All children	
	(n)	(%)	(n)	(%)	(n)	(%)
Sense of achievement						
Never	7	1%	3	1%	12	1%
Rarely	68	12%	50	9%	121	11%
Sometimes	195	35%	231	41%	436	38%
Often	207	37%	210	38%	418	37%
Very often	84	15%	65	12%	152	13%
Total	561	100%	559	100%	1139	100%
Cognitive reappraisal						
Score above half (Inc. half)	476	88%	477	90%	962	89%
Score below half	62	12%	55	10%	124	11%
Total	538	100%	532	100%	1086	100%
Expressive suppression						
Score above half (Inc. half)	410	76%	391	71%	816	74%
Score below half	128	24%	157	29%	287	26%
Total	538	100%	548	100%	1103	100%
Do you have a television in your bedroom?						
Yes	309	53%	257	44%	578	49%
No	270	47%	321	56%	598	51%
Total	579	100%	578	100%	1176	100%
Do you have your own tablet, laptop or computer?						
Yes	488	85%	478	83%	984	84%
No	88	15%	96	17%	185	16%
Total	576	100%	574	100%	1169	100%
Do you have your own mobile phone?						
Yes	390	68%	430	75%	833	71%
No	186	32%	144	25%	335	29%
Total	576	100%	574	100%	1168	100%
On a typical day, the time spent playing games on an electronic device (hours)						
None	8	1%	13	2%	23	2%
Some, but less than 2 hours	247	45%	347	64%	599	54%
More than two hours	296	54%	184	34%	491	44%
Total	551	100%	544	100%	1113	100%
On a typical day, the time spent using the internet (hours)						
None	22	4%	14	3%	37	3%
Some, but less than 2 hours	281	52%	357	66%	644	59%
More than two hours	235	44%	172	32%	417	38%
Total	538	100%	543	100%	1098	100%
Have a social networking account?						
Yes	288	52%	382	66%	680	59%
No	264	48%	193	34%	465	41%
Total	552	100%	575	100%	1145	100%
Know all the people you are 'friends' with online?						
Yes	350	67%	361	71%	720	69%
No	169	33%	146	29%	322	31%
Total	519	100%	507	100%	1042	100%

	Boys		Girls		All children	
	(n)	(%)	(n)	(%)	(n)	(%)
Have you been bullied in the last year?						
Yes	262	46%	304	53%	577	50%
No	309	54%	266	47%	583	50%
Total	571	100%	570	100%	1160	100%
Type of bullying experienced						
Physical	52	20%	26	9%	82	14%
Verbal	119	45%	194	64%	316	55%
Cyber	17	6%	16	5%	34	6%
More than one type	76	29%	66	22%	145	25%
Total	264	100%	302	100%	577	100%
Who did the bullying						
A child in their school	178	68%	222	74%	406	71%
A child from another school	28	11%	20	7%	49	9%
A brother or sister	28	11%	30	10%	59	10%
An adult	10	4%	8	3%	19	3%
More than one from above	19	7%	18	6%	39	7%
Total	263	100%	298	100%	572	100%
Do you ever argue with parents						
Never	130	23%	120	21%	256	22%
Sometimes	387	68%	409	72%	806	70%
Often	51	9%	42	7%	95	8%
Total	568	100%	571	100%	1157	100%
Do you ever feel lonely						
Never	219	38%	164	29%	388	33%
Sometimes	291	51%	317	55%	616	53%
Often	60	11%	91	16%	157	14%
Total	570	100%	572	100%	1161	100%
Do you ever feel sad						
Never	39	7%	31	5%	71	6%
Sometimes	448	79%	442	78%	901	78%
Often	82	14%	97	17%	186	16%
Total	569	100%	570	100%	1158	100%
Do you ever talk to your parents or teachers if you have any problems						
Yes	416	73%	440	77%	863	74%
No	154	27%	130	23%	296	26%
Total	570	100%	570	100%	1159	100%

Appendix II: Questionnaire



The questionnaire is titled "Health and Happiness Survey" in a large, bold, blue font. Below the title, there are four lines of text: "This questionnaire is about you and your life.", "Please answer the questions as honestly as you can.", "This is not a test and there are no right or wrong answers.", and "We will not tell anyone what your answers are. You can miss out any question that you don't want to answer." Below this text is a row of green line-art icons including a sailboat, a duck, a fruit, a hand, a heart, a drink, a pill, a bandage, and an ear. The main content area is a white box with a rounded border. It contains a question "What is the name of your school?" followed by a text input field. Below this is a section titled "About you" with the text "Here are a few questions about you and your family." This section contains two columns of questions. The first column asks "How old are you?" with radio button options for 9, 10, 11, 12, and "Id prefer not to say". The second column asks "Are you" with radio button options for "A boy", "A girl", and "Id prefer not to say", followed by "Do you have a disability?" with radio button options for "Yes", "No", and "Id prefer not to say". At the bottom of the white box is the question "What is the main language you use at home?" followed by a text input field. The entire form is set against a background of faint, light green icons. The bottom of the page has a dark blue header with the text "Health and Happiness Survey" and a white circle containing the number "1".

Health and Happiness Survey

This questionnaire is about you and your life.
Please answer the questions as honestly as you can.
This is not a test and there are no right or wrong answers.
We will not tell anyone what your answers are.
You can miss out any question that you don't want to answer.

What is the name of your school?

About you
Here are a few questions about you and your family.

How old are you?

☐ 9
☐ 10
☐ 11
☐ 12
☐ Id prefer not to say

Are you

☐ A boy
☐ A girl
☐ Id prefer not to say

Do you have a disability?

☐ Yes
☐ No
☐ Id prefer not to say

What is the main language you use at home?

Health and Happiness Survey 1

About your family

Who lives at home with you?

- ☐ Both my parents
- ☐ One parent and a step parent
- ☐ One parent
- ☐ A carer or carers

Which of your parents/carers works?

- ☐ Both my parents/carers work
- ☐ One of my parents/carers works
- ☐ Neither of my parents/carers work

Do either of your parents smoke?

- ☐ Yes
- ☐ No

Diet and exercise

On an average day how many portions or pieces of fruit and vegetables do you eat?

- ☐ 0
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6 or more

In general, how healthy is your diet?

- ☐ Very healthy
- ☐ Healthy
- ☐ Unhealthy
- ☐ Very unhealthy

Do you usually eat breakfast?

- ☐ Yes
- ☐ No

How often do you have fizzy drinks or energy drinks?

- ☐ Every day
- ☐ A few times a week
- ☐ A few times a month
- ☐ Never

How often do you have sweets or chocolate?

- ☐ Every day
- ☐ A few times a week
- ☐ A few times a month
- ☐ Never

Have you ever tried an alcoholic drink such as beer, cider or wine? (not including communion wine)

- ☐ Yes
- ☐ No

How many days a week do you take part in any physical activities for 60 minutes or more so that you are out of breath?

- ☐ 0
- ☐ 1
- ☐ 2
- ☐ 3
- ☐ 4
- ☐ 5
- ☐ 6
- ☐ 7

How active do you consider yourself to be?

- ☐ Very active
- ☐ Moderately active
- ☐ Not at all active

Do you consider yourself to be...

- ☐ Underweight
- ☐ Normal weight
- ☐ Slightly overweight
- ☐ Very overweight

Your life

Here is a picture of a ladder. The top step of the ladder is 10 and is the best possible life for you. The bottom step of the ladder is 0 and is the worst possible life for you. In general, which step on the ladder do you feel you are standing on at the moment?

Please circle one number.



10
9
8
7
6
5
4
3
2
1
0



The following sentences are about you and your life.

Please say how much you agree or disagree with each sentence by circling one of the numbers on each line.

	Strongly agree				Strongly disagree
My life is going well	4	3	2	1	0
My life is just right	4	3	2	1	0
I wish I had a different kind of life	4	3	2	1	0
I have a good life	4	3	2	1	0
I have what I want in life	4	3	2	1	0

Your happiness

Please say how happy you are with the things in your life by circling one of the numbers on each line.

0 means you are 'Very unhappy' and 10 means you are 'Very happy'. The higher the number, the more happy you are.

How happy are you with your health?

Very unhappy	0	1	2	3	4	5	6	7	8	9	10	Very happy
--------------	---	---	---	---	---	---	---	---	---	---	----	------------

How happy are you with the way you look?

Very unhappy	0	1	2	3	4	5	6	7	8	9	10	Very happy
--------------	---	---	---	---	---	---	---	---	---	---	----	------------

How happy are you with the way you spend your time?

Very unhappy	0	1	2	3	4	5	6	7	8	9	10	Very happy
--------------	---	---	---	---	---	---	---	---	---	---	----	------------

How happy are you with your family?

Very unhappy	0	1	2	3	4	5	6	7	8	9	10	Very happy
--------------	---	---	---	---	---	---	---	---	---	---	----	------------

How happy are you with your friends?

Very unhappy	0	1	2	3	4	5	6	7	8	9	10	Very happy
--------------	---	---	---	---	---	---	---	---	---	---	----	------------

How happy are you about the home you live in?

Very unhappy	0	1	2	3	4	5	6	7	8	9	10	Very happy
--------------	---	---	---	---	---	---	---	---	---	---	----	------------

How happy are you about the things you have?

Very unhappy	0	1	2	3	4	5	6	7	8	9	10	Very happy
--------------	---	---	---	---	---	---	---	---	---	---	----	------------

How happy are you with school, in general?

Very unhappy	0	1	2	3	4	5	6	7	8	9	10	Very happy
--------------	---	---	---	---	---	---	---	---	---	---	----	------------

How happy are you about the amount of choice you have in life?

Very unhappy	0	1	2	3	4	5	6	7	8	9	10	Very happy
--------------	---	---	---	---	---	---	---	---	---	---	----	------------

How happy are you with what may happen to you in the future?

Very unhappy	0	1	2	3	4	5	6	7	8	9	10	Very happy
--------------	---	---	---	---	---	---	---	---	---	---	----	------------

Leisure time

Do you have a television in your bedroom?

- ☐ Yes
☐ No

Do you have your own tablet, laptop or computer?

- ☐ Yes
☐ No

Do you have your own mobile phone/smartphone?

- ☐ Yes
☐ No

On an average day, how much time do you spend playing games on an electronic device such as a games console/computer/tablet/phone?

hours minutes

On an average day how much time do you spend using the internet?

hours minutes

Do you have a social networking account such as Facebook, Instagram, Twitter, What's App or Snapchat?

- ☐ Yes
☐ No

If you have a social networking account or play games online, do you know all the people you are friends with/have you met them in person?

- ☐ Yes
☐ No

Your strengths - things that you are good at

Think of 'strengths' as the best parts of your personality. Some examples of strengths could include things like being funny, kind, creative, passionate, curious, optimistic, honest, sharing, fun and enthusiastic. Please say how much you agree or disagree with each sentence by circling one of the numbers on each line.

	Strongly agree				Strongly disagree
I know how my strengths affect my relationships with my friends, family and teachers	4	3	2	1	0
I know how to apply my strengths to do well at school	4	3	2	1	0
I feel confident in my ability to use my strengths	4	3	2	1	0

Sense of achievement

How often do you do something that gives you a sense of achievement?

- ☐ Never
- ☐ Rarely
- ☐ Sometimes
- ☐ Often
- ☐ Very often



Your emotions - feeling happy and feeling sad

The following questions are about how you cope with your emotions, such as feeling happy and feeling sad. Please say how much you agree or disagree with each sentence by circling one of the numbers on each line.

	Strongly agree				Strongly disagree
When I want to feel happier, I think about something different	4	3	2	1	0
I keep my feelings to myself	4	3	2	1	0
When I want to feel less bad (e.g. sad, angry or worried), I think about something different	4	3	2	1	0
When I am feeling happy, I am careful not to show it	4	3	2	1	0
When I'm worried about something, I make myself think about it in a way that helps me feel better	4	3	2	1	0
I control my feelings by not showing them	4	3	2	1	0
When I want to feel happier about something, I change the way I'm thinking about it	4	3	2	1	0
I control my feelings about things by changing the way I think about them	4	3	2	1	0
When I'm feeling bad (e.g. sad, angry, or worried), I'm careful not to show it	4	3	2	1	0
When I want to feel less bad (e.g. sad, angry, or worried) about something, I change the way I'm thinking about it	4	3	2	1	0

Things that might make you feel unhappy or unsafe

Have you been bullied in the past year?

- ☐ Yes ☐ No

If you have been bullied in the past year, what was the type of bullying?

- ☐ Physical - someone hit or pushed you
☐ Verbal - someone said something hurtful to you
☐ Cyber - someone put something hurtful online or in a text message about you

If you have been bullied in the past year, who did the bullying?

- ☐ A child in your school
☐ A child from another school
☐ A brother or sister
☐ An adult

Do you ever argue with your parents?

- ☐ Never ☐ Sometimes ☐ Often

Do you ever feel lonely?

- ☐ Never ☐ Sometimes ☐ Often

Do you ever feel sad?

- ☐ Never ☐ Sometimes ☐ Often

Do you ever talk to your parents or teachers if you have any problems or worries?

- ☐ Yes ☐ No



"Thank, you for
completing the survey."
Please hand it back to your teacher."