

HEALTH AND SOCIAL CARE

Mental health and wellbeing among adolescents in Scotland: profile and trends

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Executive Summary

Introduction and background

The Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) is a continuation of a long established series of national surveys on smoking, drinking and drug use. It is the Scottish Government's main source of prevalence data on adolescent substance use. The data on substance use is collected alongside other contextual lifestyle, health and social factors.

This report explores trends in mental health and wellbeing and explores the factors which best predict higher and lower mental health and wellbeing. All differences commented on in the report are statistically significant.

Changes in mental health and wellbeing over time

The 'Strengths and Difficulties Questionnaire' (SDQ) has been included in SALSUS since 2006. This is a standard measure of mental health and wellbeing and gives a measure of overall mental health and wellbeing along with scores for five separate scales. The 5 scales cover emotional symptoms, conduct problems, hyperactivity/inattention, peer relationship problems, and pro-social behaviour.

Overall SDQ scores have remained fairly constant over time among young people in Scotland. However, once this is broken down by individual SDQ scales, the picture becomes more complicated.

Fewer young people have conduct problems in 2013 compared to 2006 and, similarly, pro-social behaviour has been improving gradually since 2006. There has also been a small decrease in hyperactivity. In contrast, emotional problems, and to a lesser extent peer problems, have worsened over time, with the main change happening between 2010 and 2013.

One of the most important findings is the striking difference in results for 15 year old girls in the last 3 years when compared with the other demographics groups. This group appear to be suffering much poorer mental health and wellbeing than the other groups, particularly in relation to emotional problems – borderline and abnormal scores rose from 28% in 2010 to 41% in 2013¹.

In terms of overall mental health and wellbeing, in 2013, 39% of 15 year old girls were abnormal/borderline on the SDQ scale. In 2010, the corresponding figure was 29%. This difference is statistically significant.

Since 2010, SALSUS has also included the Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS). This is a standard tool that measures mental well-being based on responses to 14 statements. WEMWBS scores have remained reasonably stable between 2010 and 2013. However, there was a slight decrease in the average mental wellbeing score among 15 year olds girls.

¹ These figures are based on sample sizes of 7,695 and 8,401 giving confidence intervals of around +/-1%. As such, this difference is clearly significant.

Two other surveys show similar findings. The Scottish Health Survey and the Scottish element of the cross-national Health Behaviour in School-aged Children (HBSC) Study also both find that mental health and wellbeing deteriorates with age and girls have worse mental health and wellbeing than boys.

Profile of mental health and wellbeing in 2013

Many factors showed an association with emotional and behavioural problems and, in most cases, an inverse relationship with mental health and wellbeing. However, there were two main areas that emerged as key to pupils' mental health and wellbeing:

- The number and nature of pupils' friendships – those who had fewer friends had poorer mental health and wellbeing e.g. 75% of girls with no close friends had a borderline or abnormal overall SDQ score, as did those with older friends e.g. 17% of pupils who had friends their own age had a borderline or abnormal conduct problems score compared with 41% of pupils with mostly older friends.
- The pupils' relationship with school – those that disliked school, felt pressured by school work, truanted on multiple occasions or had been excluded had poorer mental health and wellbeing than those that did not.

Other factors that were associated with increased prevalence of poor mental health and wellbeing included:

- Mother's knowledge of activity being below average
- Spending 6-7 nights a week out with friends.

Variables that were linked to better mental health and wellbeing included:

- Living with both parents
- Expecting to go to university after leaving school
- Belonging to a group or club.

A number of activities appeared to have a protective effect against poor mental health and wellbeing (although causal links are likely to be complex). Belonging to a group or club and seeing friends, doing a hobby, reading books or playing a sport at least weekly were associated with better mental health and wellbeing. For girls in particular, playing sport on a weekly basis was strongly related to lower levels of emotional and behavioural problems.

Predictors of mental health and wellbeing

Girls were more likely than boys to have borderline or abnormal scores for the overall SDQ scale, emotional problems and hyperactivity. However, boys were more likely than girls to have problems with conduct, peers or pro-social behaviour.

The relationship between age and mental health and wellbeing is not straightforward. Emotional and behavioural problems appeared to increase, while mental health and wellbeing decreased, as pupils moved further into adolescence.

Overall, poor mental health and wellbeing is more prevalent among S4 than S2 pupils. However, age did not come out as a significant factor in the modelling of the overall SDQ score. Age, by itself, is not a key driver of mental health and wellbeing. Instead, it reflects

the prevalence of other drivers changing as pupils get older. Most notably, S4 pupils are more likely than S2 pupils to feel pressurised by schoolwork and to not like school.

Poorer physical health is associated with lower mental health and wellbeing. Pupils who reported that they had a limiting illness or disability tended to suffer from poorer mental health and wellbeing.

Pupils who had a mixed or multiple ethnicity were more likely to suffer from poor mental health and wellbeing than those from other ethnicities.

Higher levels of deprivation were correlated with poorer mental health and wellbeing. The Scottish Index of Multiple Deprivation (SIMD), perceived family affluence, and receipt of Free School Meals all showed a relationship with mental health and wellbeing. Perceived family affluence had a stronger association than the geography based measure of deprivation (SIMD) and receipt of Free School Meals.

However, the impact of deprivation was not as large as some other factors such as attitudes to school. Pupils who thought that their family was not well off were twice as likely as those who thought that their family was very or quite well off to have borderline or abnormal scores for the overall SDQ. Pupils in the most deprived quintile of SIMD were 50% more likely than those in the least deprived quintile to have borderline or abnormal scores for the overall SDQ. In contrast, pupils who said that they did not like school were over four times more likely to have borderline or abnormal scores than those who said that they liked school a lot.

There was no clear pattern in mental health and wellbeing by urban/rural classification.

1 Background and methodology

Policy background

The Scottish Government's Mental Health Strategy 2012-2015 outlines mental health policy for children and young people across several priority areas. It takes forward action points from the preceding 'Delivering for Mental Health 2006' and 'Towards a Mentally Flourishing Scotland: Policy and Action Plan 2009-2011'.

Policy in this area aims to develop child and adolescent mental health services that are directed at the care needs of this group. For example, the strategy addresses the specific mental health care needs of children and young people by setting out policy on attachment issues and by making basic mental health training more widely available to professionals in the children's services workforce and improving access to child psychotherapy by investing in a new cohort of trainees.

The Mental Health Strategy is informed by national indicators for child and adolescent mental health (2012) developed by the Scottish Government and NHS Scotland. The national indicators cover mental health problems, mental wellbeing and associated contextual factors such as learning and development and equality. The indicators are aligned with other initiatives directed towards the wellbeing of children and young people such as the Early Years Framework, Curriculum for Excellence, Equally Well and Getting it Right for Every Child.

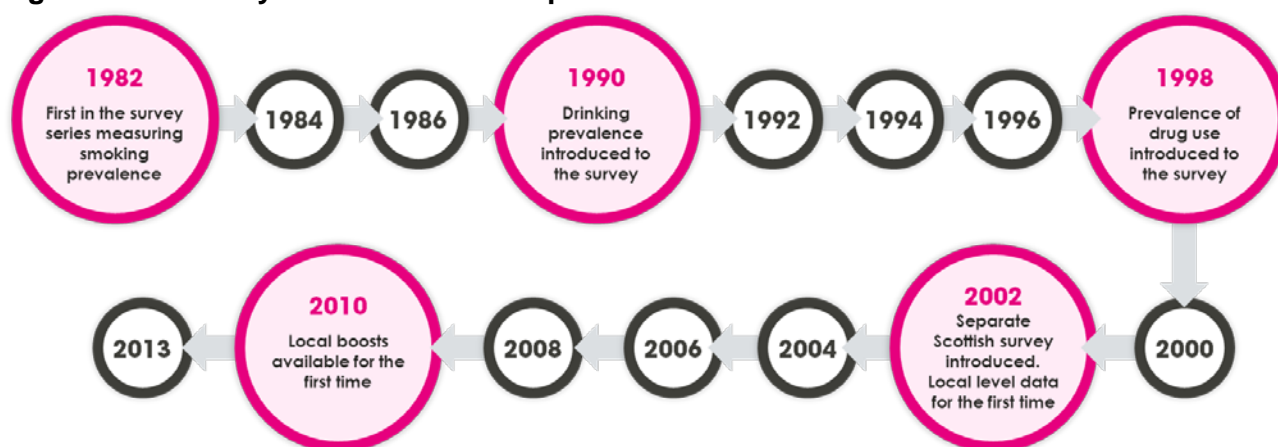
The Scottish Government is working alongside a range of stakeholders to develop a children and adolescent mental health services scorecard to collect data on the provision of mental health care for children with learning disabilities, and identify areas where there is limited access to care, in order to base targeted interventions. The strategy details targets to improve accessibility of specialist child and adolescent mental health services by reducing waiting times after referral to a maximum of 18 weeks. Furthermore the Strategy details policy to reduce under 18s admission to adult wards.

Policy areas that stem from the mental health strategy include working more effectively with families and carers, embedding more peer-to-peer support, increasing support for self-help approaches, extending the anti-stigma agenda through the 'see me' programme, focussing on the rights of those with mental illness, developing the outcomes approach to include personal and social outcomes and ensuring that technology is used effectively to deliver evidence-based services.

Survey background and purpose

- 1.1 The Scottish Schools Adolescent Lifestyle and Substance Use Survey (SALSUS) is a continuation of a long established series of national surveys on smoking, drinking and drug use (Figure 1.1). These were carried out jointly in Scotland and England between 1982 and 2000, to provide a national picture of young peoples' smoking, drinking, and drug use behaviours within the context of other lifestyle, health and social factors.
- 1.2 Since 2002, Scotland has developed its own, more tailored, survey known as SALSUS. SALSUS measures progress towards Scottish Government targets for smoking and drug use, and is used to inform the Scottish Government priority of addressing harmful drinking among young people. The survey series also provides local prevalence rates for smoking, drinking and drug use across Alcohol and Drug Partnerships (ADPs), local authorities and NHS Boards. SALSUS data are used in a number of the ADP national core indicators, which allows them to monitor their progress against a common set of outcomes. ADPs and their community planning partners make extensive use of SALSUS data in local needs assessments and in developing their strategic priorities.

Figure 1.1 – History of SALSUS and its predecessors



- 1.3 Full access to the 2013 results can be found here: <http://www.isdscotland.org/Health-Topics/Public-Health/SALSUS/Latest-Report/>.

Methodology

- 1.4 SALSUS is a confidential, self-completion questionnaire that is completed by S2 and S4 pupils, average age 13 and 15 years, in school (previous waves surveyed S1-S4). The survey covers items on smoking, drinking and drug use, as well as a number of contextual questions about lifestyle.
- 1.5 Since 1990, the datasets from SALSUS and its predecessors have been deposited in the UK data archive. The Scottish Government commissioned Ipsos MORI to examine the feasibility of combining these datasets into a single dataset to facilitate greater use of this resource, and, if it was deemed

feasible, to create a unified dataset together with accompanying documentation. Changes in the methodology and questionnaire coverage were examined.

- 1.6 We concluded that the data was consistent enough that a combined dataset would allow meaningful analysis of trends over time. This combined dataset has now been constructed and this report is one of the first uses of this data source.
- 1.7 All differences commented on in the report are statistically significant.

Mental health and wellbeing indicators

- 1.8 SALSUS is foremost a survey about substance use in adolescence and the outputs are therefore focussed on prevalence of smoking, drinking and drug use. However, the survey contains a wealth of information on the behaviour of young people in Scotland over the last 30 years. While these variables are reported on in terms of their relationship with substance use, they have never been reported in their own right.
- 1.9 This report explores one of the other topics included in SALSUS – mental health and wellbeing. It covers trends in mental health and wellbeing, the profile of those with poorer mental health and wellbeing in 2013, and the factors which best predict positive mental health and wellbeing.

Emotional and behavioural problems – Strengths and Difficulties Questionnaire

- 1.10 The 'Strengths and Difficulties Questionnaire' (SDQ) was designed by Robert Goodman (1997) (1 – see Reference section) and is widely used by researchers, clinicians and education professionals. This measure has been included in SALSUS since 2006. The questionnaire comprises 25 items that are grouped into 5 scales, with each scale including 5 questions. The scales are:
 - emotional symptoms (5 items)
 - conduct problems (5 items)
 - hyperactivity/inattention (5 items)
 - peer relationship problems (5 items)
 - pro-social behaviour (5 items).
- 1.11 Information on how to score the self-completed SDQ was obtained from the website <http://www.sdqinfo.com>, a site referenced by Goodman et al. For each item in each of the five scales, the value of the responses 'Not true,' 'Somewhat true,' and 'Certainly true' are assigned a value from 0 to 2.
- 1.12 Overall scores were calculated for each of the five scales by summing the scores for all items within each scale. Total difficulties scores were also calculated as an overall measure of emotional and behavioural problems by summing the scores for emotional problems, conduct problems,

hyperactivity and peer problems, but excluding scores for pro-social behaviour.

Mental Wellbeing – Warwick-Edinburgh Mental Wellbeing Scale (WEMWBS)

- 1.13 The Warwick-Edinburgh Mental Well-being Scale (WEMWBS) was developed by researchers at the Universities of Warwick and Edinburgh, with funding provided by NHS Health Scotland, to enable the measurement of mental wellbeing of adults in the UK (2).
- 1.14 Since 2010, SALSUS has included WEMWBS. Developed as a tool for measuring mental wellbeing at a population level, the scale comprises 14 positively worded statements that relate to an individual's state of mental wellbeing (thoughts and feelings). Pupils were asked to indicate how often they have had such thoughts and feelings over the last two weeks. Each statement has a five item scale ranging from '1 - None of the time' to '5 - All of the time'. The lowest possible score is therefore 14 and the highest is 70.

2 Changes in mental health and wellbeing over time

Key Findings

- Overall SDQ scores have remained fairly constant over time among young people in Scotland. However, once this is broken down by individual SDQ scales, the picture becomes more complicated.
- Emotional problems, and to a lesser extent peer problems, have worsened over time with the main change happening between 2010 and 2013.
- In contrast, conduct problems and pro-social behaviour have been improving gradually since 2006. Hyperactivity has marginally improved.
- One of the most important findings is the striking difference in results for 15 year old girls in the last 3 years when compared with the other demographic groups. This group appears to be suffering much poorer mental health and wellbeing than the other groups, particularly in relation to emotional problems – borderline or abnormal scores rose from 28% in 2010 to 41% in 2013.
- WEMWBS has remained reasonably stable between 2010 and 2013. However, there was a slight decrease in the average mental wellbeing score among 15 year old girls.

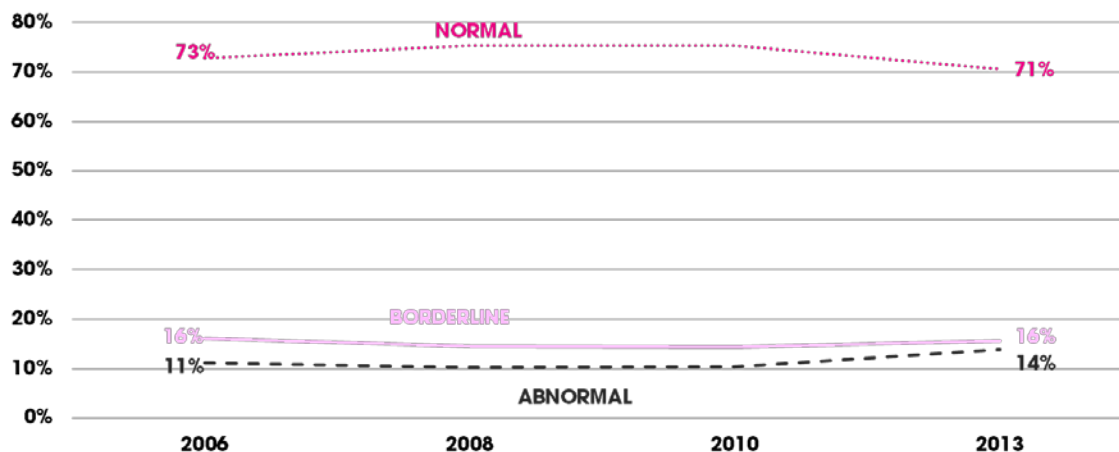
Wider context of mental health trends among adolescents

- 2.15 In March 2012, NHS Health Scotland published a core set of national, sustainable mental health indicators for children and young people in Scotland (3). The aim of the indicators was to *“support and promote consistent and sustainable national monitoring of the state of mental health and the associated contextual factors for children and young people in Scotland and [...] to create a mental health profile for children and young people in Scotland”* (3).
- 2.16 A number of these indicators stem from data collected in SALSUS using the Strengths and Difficulties questionnaire and WEMWBS. Almost all of the analysis in this report will coincide with these indicators.

Overall mental health and wellbeing trends

- 2.17 Since 2006, the proportion of pupils with an abnormal overall SDQ score has slightly increased (Figure 2.1). However, when broken down by age group and gender a slightly more complicated picture emerged.

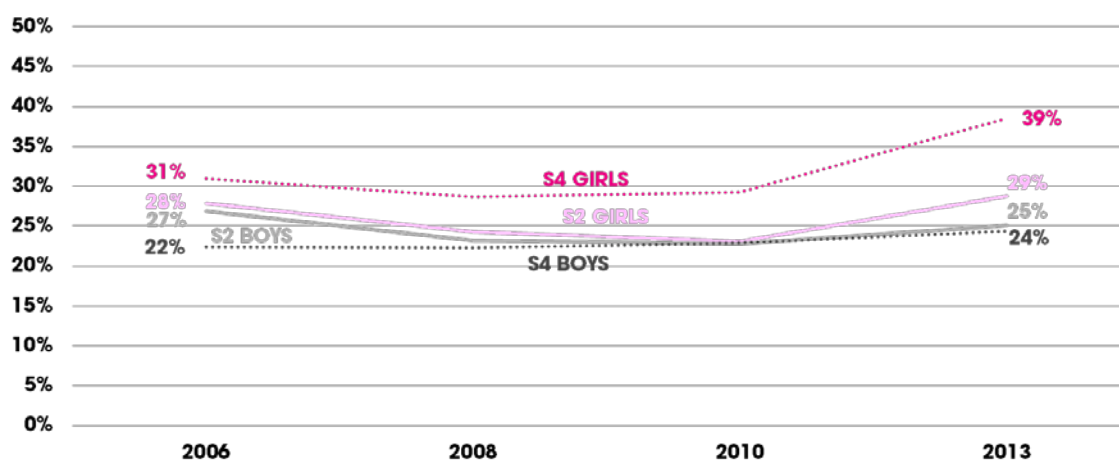
Figure 2.1 Overall SDQ score between 2006 and 2013



Base: 2006 (1994), 2008 (9143), 2010 (34041), 2013 (31002)

2.18 The proportion of 15 year old girls who have a borderline or abnormal SDQ score has been higher than any other group since SDQ was added to the survey in 2006. However, since 2010, this gap has widened. The proportion of 15 year olds girls who have borderline or abnormal scores increased by 10 percentage points between 2010 and 2013. Overall, nearly 4 in 10 15 year old girls had a borderline or abnormal SDQ score in 2013 (Figure 2.2).

Figure 2.2 – Trends in overall SDQ scores by sex and age (% borderline or abnormal score)



Full bases in Table A.1 in Appendix A

Trends in individual SDQ scales

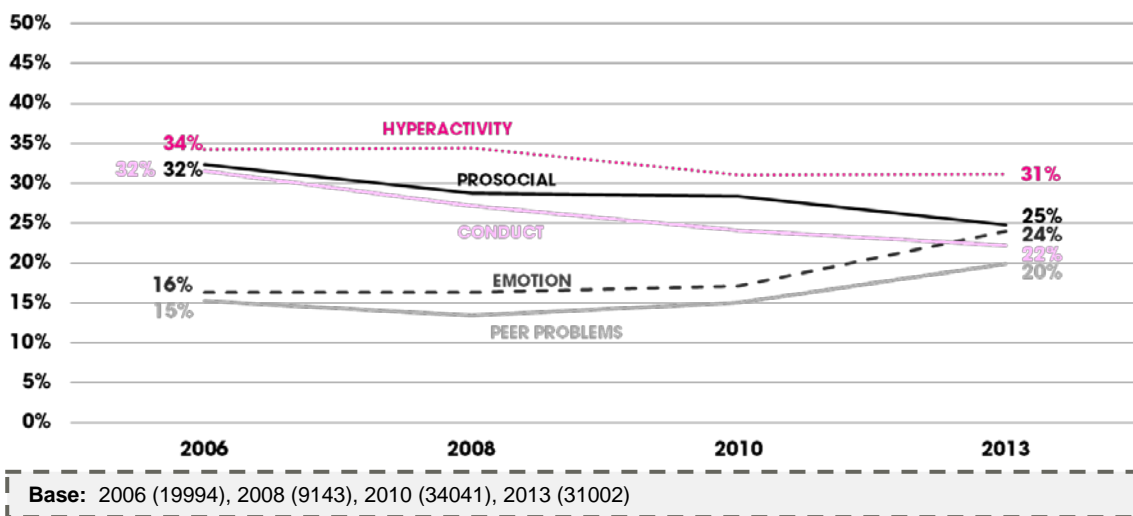
2.19 The overall SDQ score gives an overview of emotional and behavioural problems. However, there is a great deal of variation in trends across the individual components that do not necessarily follow the pattern of the total difficulties score (Figure 2.3).

2.20 While the overall SDQ score has changed little over time for all pupils, the individual scales show differing patterns. Pro-social behaviour has been improving over time. Unlike the other SDQ scales this has been a gradual change, rather than largely due to differences between 2010 and 2013

(Figure 2.3). Full trend charts for each individual scale are available in Appendix B.

- 2.21 The emotional difficulties scores have worsened over time, although this has predominantly happened between 2010 and 2013. In contrast, conduct problems scores showed a more positive picture. The proportion of those with a normal score has been increasing gradually between 2006 and 2013.
- 2.22 Levels of hyperactivity have remained fairly stable over time, with a slight reduction in abnormal scores. Difficulties with peers have increased over time. Again, this has predominantly happened between 2010 and 2013 (Figure 2.3).

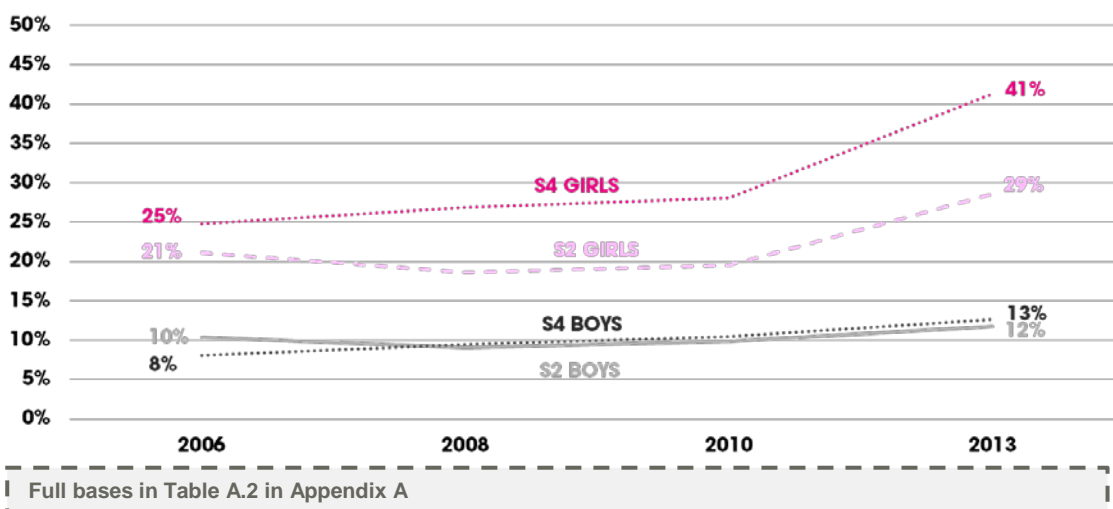
Figure 2.3 Individual SDQ scales between 2006 and 2013 (% borderline or abnormal score)



Emotional problems

- 2.23 The overall increase in emotional problems has mainly been driven by an increase in borderline or abnormal scores among 15 year old girls and, to a lesser extent, 13 year old girls. This change has considerably widened the gap in emotional difficulties between boys and girls (Figure 2.4).

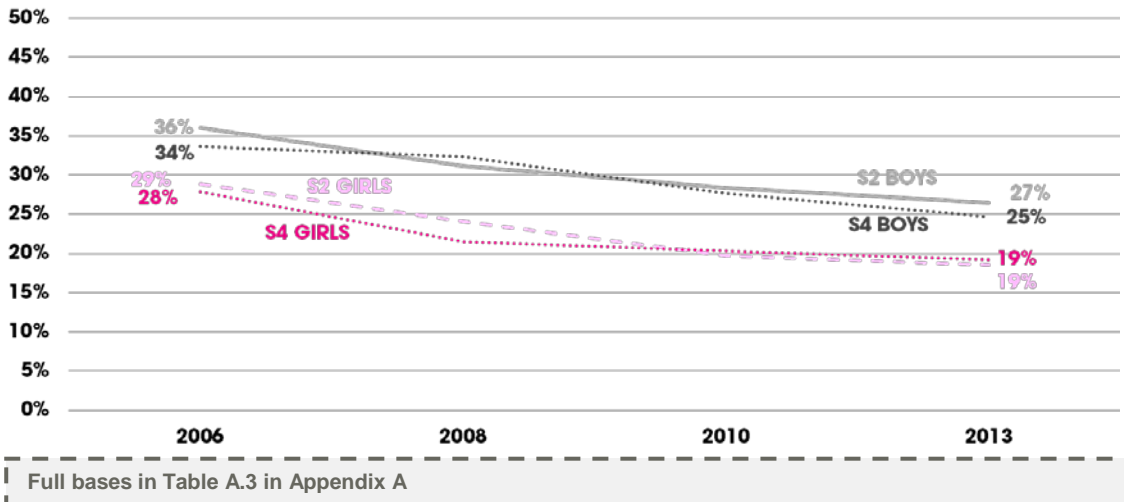
Figure 2.4 – Trends in emotions SDQ scores by sex and age (% borderline or abnormal score)



Conduct problems

2.24 Among both age groups, boys were more likely to report conduct problems than girls. Conduct problems have been decreasing among all groups and the gap between boys and girls has remained constant (Figure 2.5).

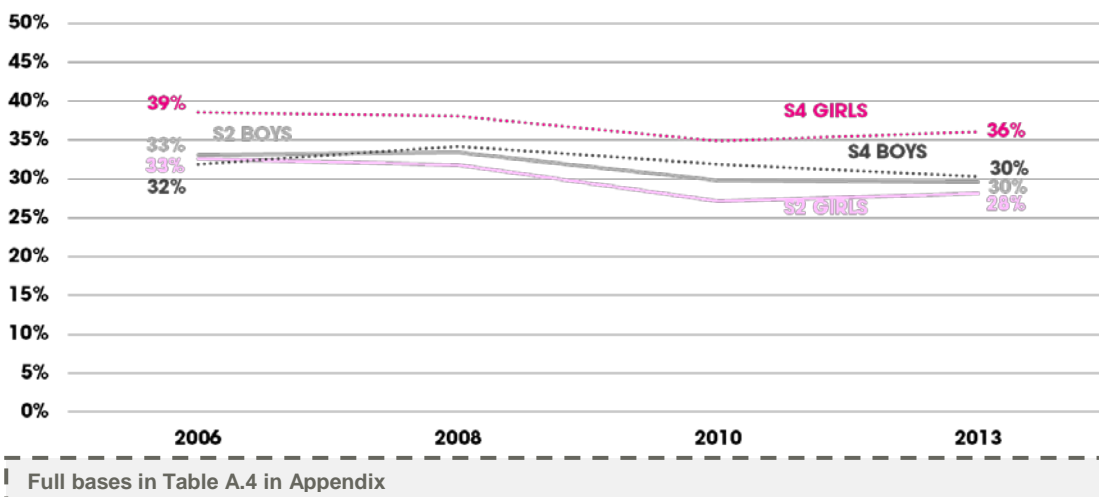
Figure 2.5 – Trends in conduct SDQ scores by sex and age (% borderline or abnormal score)



Hyperactivity

2.25 The pattern of change in levels of hyperactivity was broadly consistent across both sexes and age groups. Fifteen year old girls have consistently shown higher levels of hyperactivity difficulties than any other group (Figure 2.6).

Figure 2.6 – Trends in hyperactivity SDQ scores by sex and age (% borderline or abnormal score)

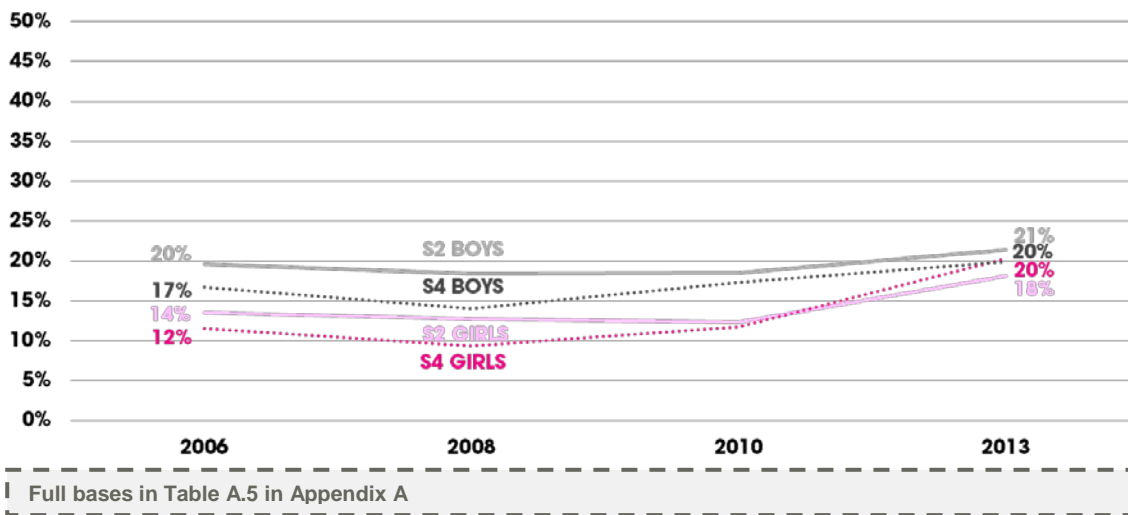


Peer problems

2.26 Between 2006 and 2010, boys were more likely to have peer problems than girls. However, their scores have remained fairly static over time while girls' scores have worsened (particularly among 15 year olds girls). This has

meant that the gap has closed over time and by 2013 boys and girls had very similar scores (Figure 2.7).

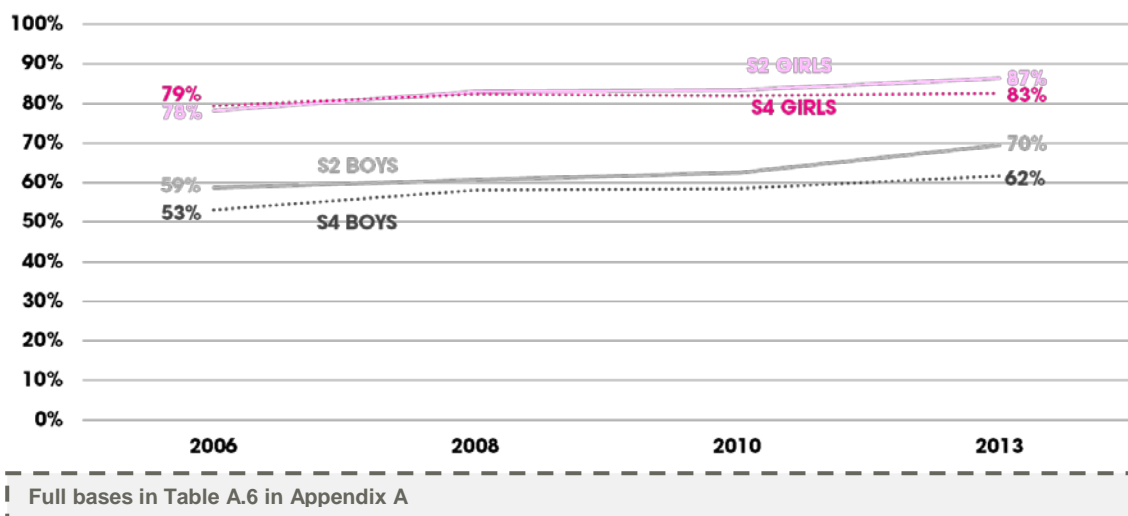
Figure 2.7 – Trends in peer problems SDQ scores by sex and age (% borderline or abnormal score)



Pro-social score

2.27 In both age groups, girls were more likely to have normal pro-social scores than boys. This has been broadly consistent over time (Figure 2.8).

Figure 2.8 – Trends in pro-social SDQ scores by sex and age (% normal score)



WEMWBS

2.28 The WEMWBS scale was only added to SALSUS in 2010, so there is not yet long-term trend data. However, we can examine change between 2010 and 2013. In the WEMWBS scale, the lowest score possible score (indicating poor mental wellbeing) is 14 and the highest is 70 (indicating good mental wellbeing), so a higher average score for any particular group indicates higher mental wellbeing. The average² WEMWBS score for all pupils decreased slightly between 2010 and 2013 from 50.0 to 48.7. This suggests that mental wellbeing decreased although not to a great extent.

² Mean score (as opposed to the median score).

2.29 With the exception of 15 year old girls, there has been little change in average WEMWBS scores between 2010 and 2013. Among the 15 year old girls, there was a small drop in mental wellbeing between 2010 and 2013 (Figure 2.9).

Figure 2.9 WEMWBS average score in 2010 and 2013 by age and sex

	15 year old girls	15 year olds boys	13 year old girls	13 year old boys
2010	48.5	50.8	49.9	50.9
2013	45.1	50.2	50.2	51.3

Full bases in Table A.7 in Appendix A

Comparisons with other mental health and wellbeing indicators

Existing findings from other sources

The Scottish Health Survey and the 'Scottish Health Behaviour in School-aged Children' (HBSC) Study confirm SALSUS findings:

- Mental health and wellbeing worsens with age
- Mental health and wellbeing is lower for 15 year old girls

2.30 In order to provide context to the findings, some of the mental health and wellbeing indicators from other surveys, namely the Scottish Health Survey (SHeS) (4) and the Health Behaviours in School-Aged Children (HBSC) study (5), will be discussed.

2.31 Tables 2.1-2.3 compare figures from the latest wave of the Scottish Health Survey (SHeS) with SALSUS 2013. Overall, mental wellbeing appeared to worsen as pupils aged. However, the figures were too small to show any significant differences (Table 2.1). The Scottish Health Survey also shows that boys have better mental health and wellbeing than girls (Table 2.3).

Table 2.1 Borderline or abnormal SDQ scores by age group

	SHeS 2014			SALSUS 2013
	Age 4-6	Age 7-9	Age 10-12	Age 13-15
Overall	11%	14%	17%	29%
Emotion	7%	12%	21%	24%
Conduct	18%	17%	22%	22%
Hyperactivity	21%	21%	19%	31%
Peer problems	17%	19%	23%	20%
Pro-social	11%	7%	9%	25%
Bases	299	292	317	33,685

Table 2.2 Average WEMWBS by age group and gender SALSUS 2013

SALSUS 2013				
	Female 13 years	Male 13 years	Female 15 years	Male 15 years
Average WEMWBS score	50.2	51.3	45.1	50.2
<i>Bases</i>	7,249	7,494	7,427	7,482

Table 2.3 Average WEMWBS by age group and gender SHeS 2012/2013/2014

SHeS 2012/2013/2014 combined				
	Female 13 years	Male 13 years	Female 15 years	Male 15 years
Average WEMWBS Score	50.7	53.0	49.0	51.3
<i>Bases</i>	115	136	135	123

2.32 With the exception of 13 year old girls, mental health and wellbeing reported by adolescents in the combined 2012/2013/2014 SHeS figures was higher on average than in SALSUS 2013 (Table 2.2 and 2.3).

2.33 HBSC also contains wellbeing measures, but not the SDQ or WEMWBS. The survey includes life satisfaction and self-confidence. A number of the key HBSC findings on wellbeing echo the SALSUS results:

- The prevalence of high life satisfaction falls with age, especially among girls (84% of 13 year old girls reported high life satisfaction, compared with 76% of 15 year old girls).
- Feeling confident 'always' was more common among boys than girls (19% of 13 year old boys and 15% of 15 year old boys, compared with 6% of 13 year old girls and 4% of 15 year old girls, respectively).
- Feeling confident 'always' has been decreasing gradually among both boys and girls.

3 Profile of mental health and wellbeing in 2013

Key Findings

- Many factors showed an association with emotional and behavioural problems and, in most cases, an inverse relationship with mental health and wellbeing. However, there were two main areas that emerged as key to pupils' mental health and wellbeing:
 - The number and nature of pupils' friendships – those who had fewer friends had poorer mental health and wellbeing e.g. 75% of girls with no close friends had a borderline or abnormal overall SDQ score, as did those with older friends e.g. 17% of pupils who had friends their own age had a borderline or abnormal conduct problems score compared with 41% of pupils with mostly older friends.
 - The pupils' relationship with school – those that disliked school, felt pressured by school work, truanted on multiple occasions or had been excluded had poorer mental health and wellbeing than those that did not.
- Other factors that were associated with poorer mental health and wellbeing included:
 - Below average maternal knowledge of activity
 - Spending 6-7 nights out with friends per week
 - Doing nothing, hanging out in the street or going to concerts gigs at least weekly.
- There were also variables that were linked to better mental health and wellbeing:
 - Living with both parents
 - Expecting to go to university after leaving school
 - Belonging to a group or club
 - Playing a sport, seeing friends or reading a book at least once a week.

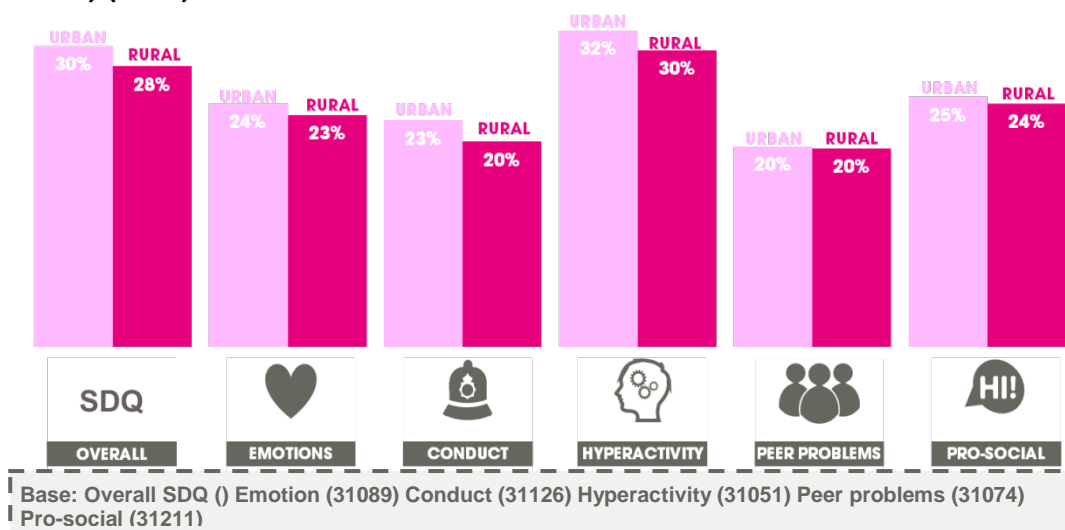
Geography

Existing findings from other sources

- Previous research found that there was a relationship between population density and mental health - young people living in urban areas were more likely to report mental health problems. (6)

3.1 There was no clear difference in overall SDQ score by urban/rural classification. This was also the case for the individual scales that make up the Strengths and Difficulties questionnaire (Figure 3.1).

Figure 3.1 Individual SDQ scores by urban/rural classification (% borderline or abnormal score) (2013)



- 3.2 In line with the SDQ measures of emotional and behavioural difficulties, mental wellbeing showed no relationship with urban/rural classification.
- 3.3 Figures C.1-C.5 in Appendix C show the trends over time for the individual SDQ scales for each local authority³ (Tables C.1-C.5 show the bases).
- 3.4 Pupils were most likely to have a borderline or abnormal scores on the overall SDQ score in Stirling and South Ayrshire (36% and 35% of pupils had a borderline or abnormal score, respectively). Pupils were least likely to have emotional or behavioural problems in Eilean Siar (24% of pupils had a borderline or abnormal score), East Renfrewshire (24%) and Perth & Kinross (21%). The Scottish average borderline or abnormal score was (29%) (See Table C.6 in Appendix C for full results).

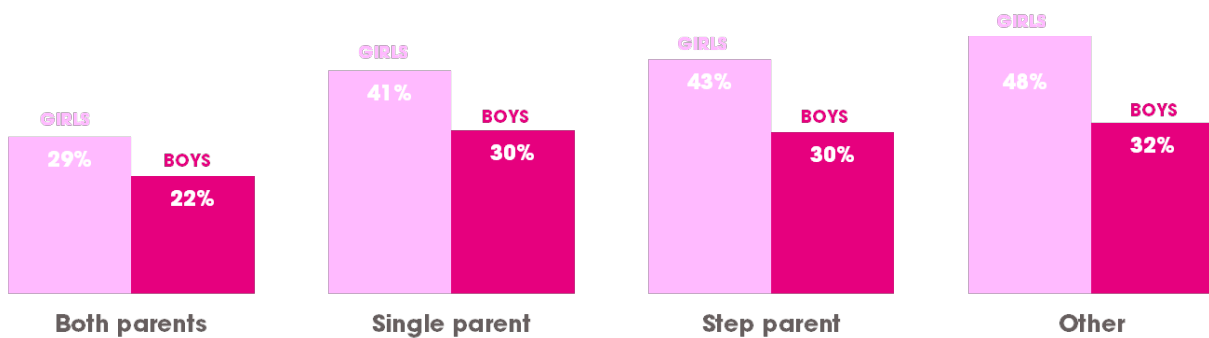
³ Inverclyde and Renfrewshire have been excluded due to small base sizes.

Family

Existing findings from other sources

- Over half (55%) of children with an emotional disorder had parents who had separated (7)
- The prevalence of mental disorders was higher in lone parent families than in two parent families and in reconstituted families, compared with families containing no step children (6)

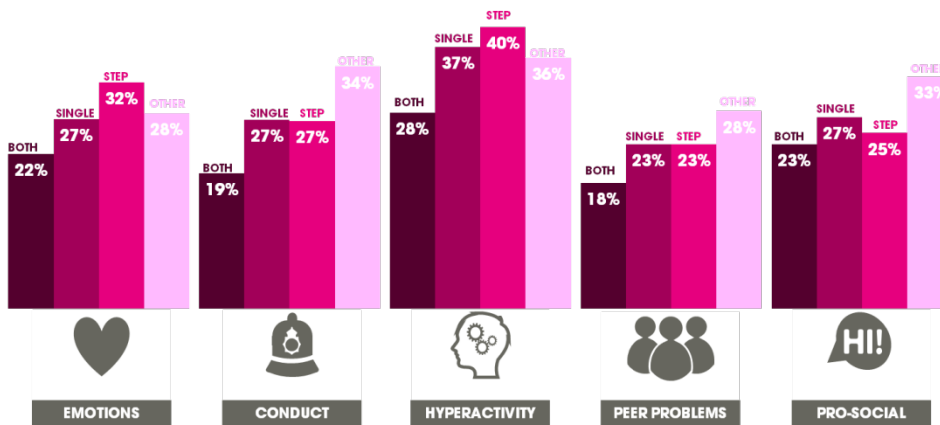
Figure 3.8 Overall SDQ score by family status and sex (% borderline or abnormal score) (2013)



Base: Full bases in Table D.1 in Appendix D

3.5 Overall SDQ scores were associated with family status (Figure 3.8). Those living with both parents were least likely to have a borderline or abnormal score. Those living in single or step families had higher borderline or abnormal scores, while those that lived in 'other' (without either parent) family situations were the most likely to have borderline or abnormal scores. While this pattern was evident in both boys and girls, it was stronger among girls.

Figure 3.9 Individual SDQ scores by family status (% borderline or abnormal score) (2013)



Base: Emotion (30400) Conduct (30434) Hyperactivity (30360) Peer problems (30384) Pro-social (30518)

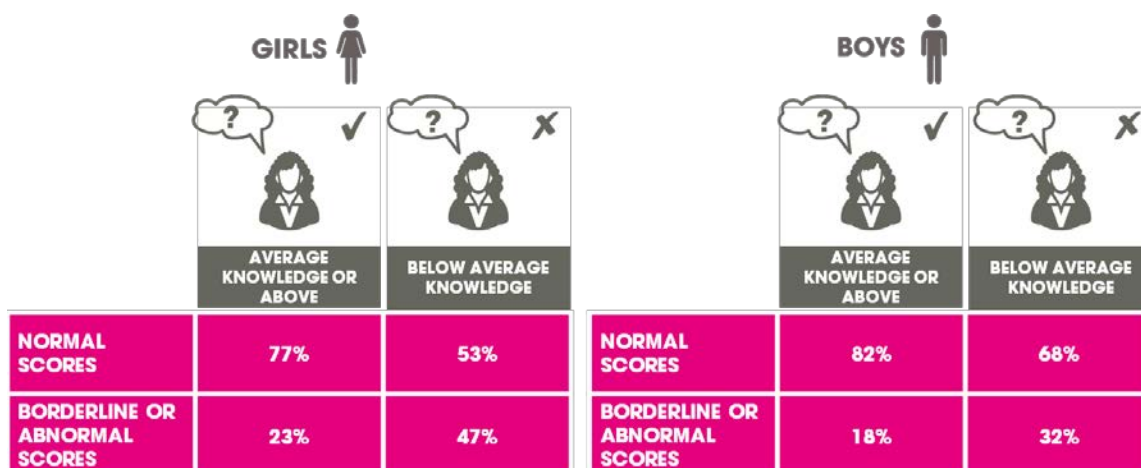
3.6 While those living with both parents had the lowest level of difficulties across all of the individual SDQ scales, there was some variation among the other groups (Figure 3.9). As with the overall SDQ measure, those living in ‘other’ family situations were most likely to have conduct, peer or pro-social problems. However, those living in step families were most likely to have emotional or hyperactivity problems.

Table 3.2 Average WEMWBS score by family status (2013)

Family status	Average WEMWBS score	Bases
Both parents	49.7	18771
Single parent	47.2	6760
Step parent (and one parent)	46.7	2539
Other	46.4	1217

3.7 Mental wellbeing showed a similar pattern to overall SDQ scores (Table 3.2). Those living with both parents had the highest average WEMWBS scores, followed by those in single parent families and step families. Those living in ‘other’ family situations had the poorest mental health and wellbeing.

Figure 3.10 Overall SDQ score by sex and mother’s knowledge⁴ (2013)

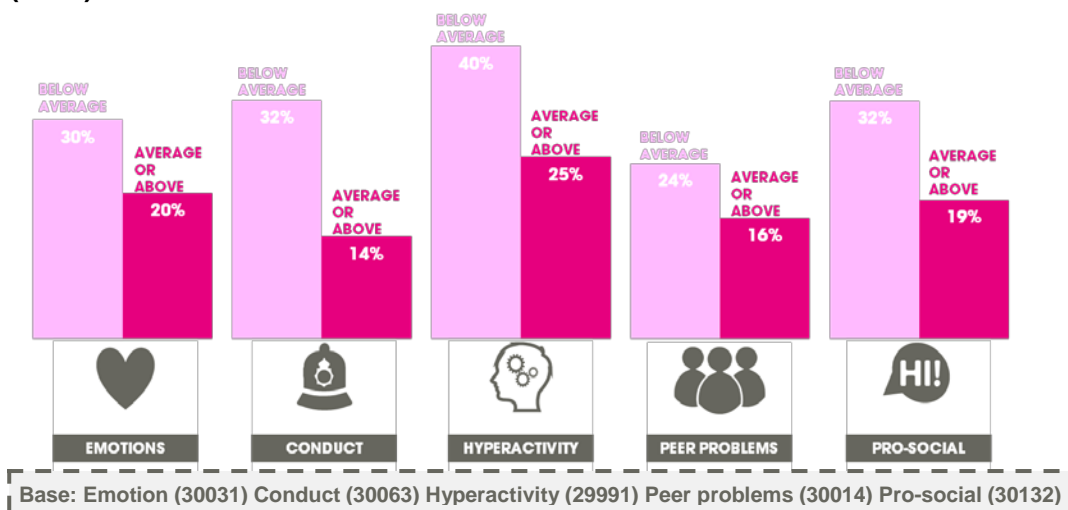


Full bases in Table D.2 in Appendix D

3.8 Pupils whose mother knew an above average amount about their activities were less likely to have a borderline or abnormal SDQ score. This association was stronger among girls than boys (Figure 3.10).

⁴ In this instance, average knowledge is represented by the median score, rather than the mean.

Figure 3.11 Individual scores by mother’s knowledge (% borderline or abnormal scores) (2013)



3.9 The amount a pupil’s mother knew about their activities was associated with all of the individual SDQ scales, although to differing extents. Mother’s knowledge was most strongly associated with conduct problems and least strongly associated with peer problems (Figure 3.11).

Table 3.3 Average WEMWBS score by mother’s knowledge (2013)

Mother's knowledge of activities	Average WEMWBS score	Bases
Below average knowledge	46.2	12524
Average knowledge or above	50.8	16412

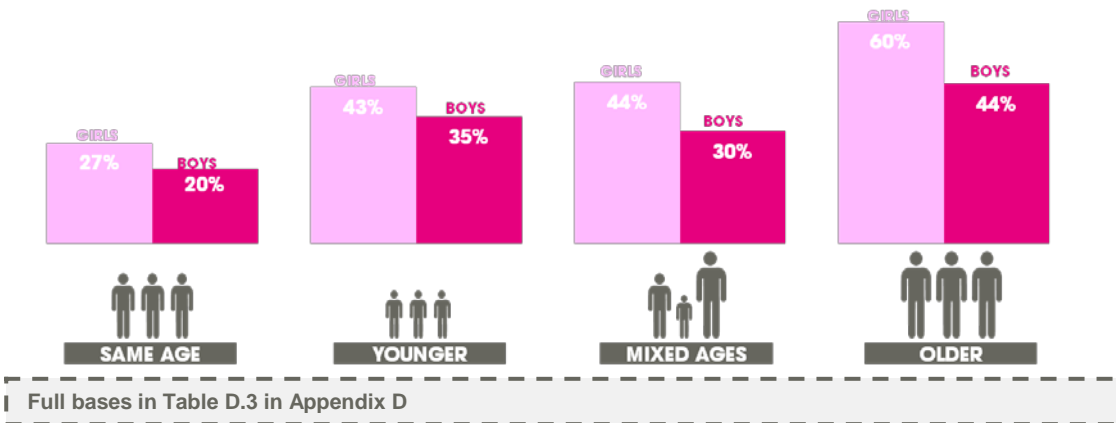
3.10 Those whose mother knew an average or above average amount about their activities were more likely to have higher levels of mental health and wellbeing (Table 3.3).

Friends

Existing findings from other sources

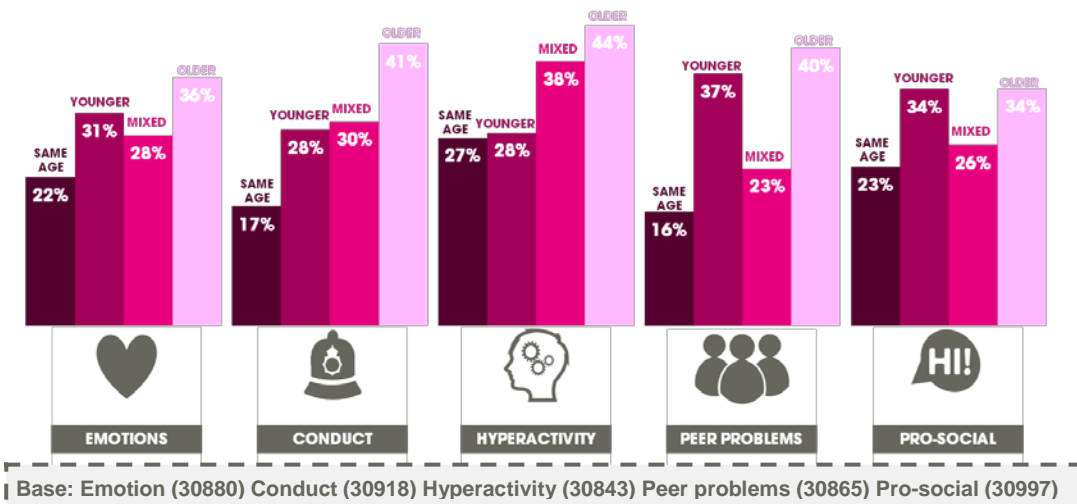
- In England, a fifth (22 %) of children with emotional disorders found it more difficult than average to keep friends compared with only 5% of other children (8).
- Again, in England young people aged 11-16 with difficulty making and keeping friends increased their prevalence of developing emotional disorders such as anxiety and depression by 33% (8).
- A Finnish cohort study in 1981 found that children who had been bullied when they were 8 years old were more likely to have internalising and externalising problems and 3.5 times more likely to be referred for mental health services in later years (9).

Figure 3.12 Overall SDQ score by age of friends and sex (% borderline or abnormal scores) (2013)



3.11 Pupils who said that their friends were the same age as them were the most likely to have normal overall SDQ scores, followed by those with friends of mixed ages and those with mostly younger friends (Figure 3.12). Those with mostly older friends were most likely to have borderline or abnormal scores. This pattern was the same among both sexes but was present in a greater degree among girls.

Figure 3.13 Individual SDQ scores by age of friends (% borderline or abnormal scores) (2013)



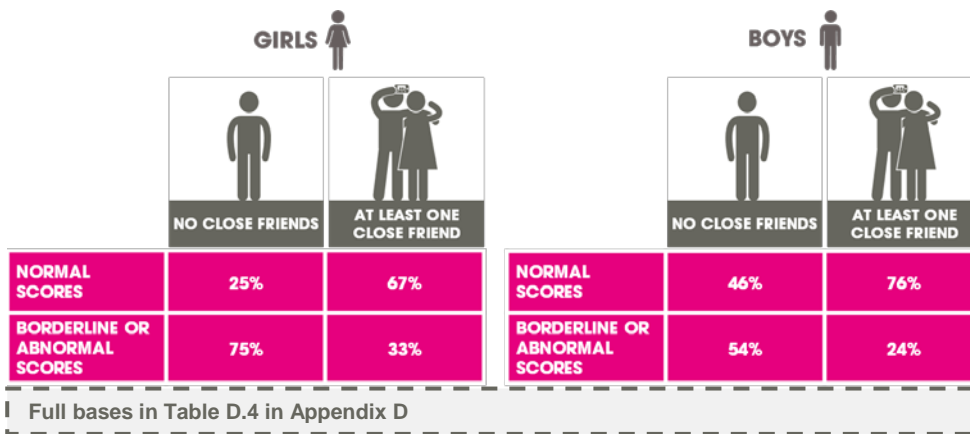
3.12 The age of pupils' friends showed a similar pattern across most of the individuals SDQ scales. However, having younger friends was more closely related to both peer problems and pro-social problems (Figure 3.13).

Table 3.4 Average WEMWBS score by friends' age (2013)

Age of friends	Average WEMWBS score	Bases
About the same age as me	49.6	19031
Younger than me	48.2	435
Mixed ages	47.7	8099
Older than me	45.2	1140

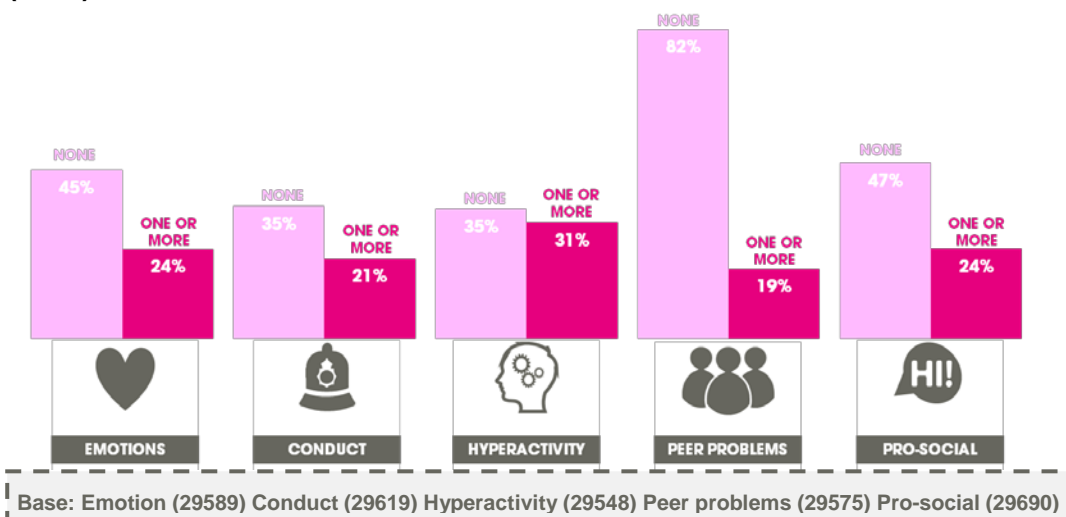
3.13 Average WEMWBS score also showed a relationship with age of friends. As with overall SDQ score, mental wellbeing was higher among those who had friends that were the same age as them. Those with mostly older friends had the lowest average mental health and wellbeing (Table 3.3).

Figure 3.14 Overall SDQ score by number of friends and sex (2013)



3.14 Those who said that they had no close friends were much more likely to have a borderline or abnormal overall SDQ score. This was particularly the case among girls – three quarters of those with no close friends had a borderline or abnormal score (Figure 3.14).

Figure 3.15 Individual SDQ scores by number of friends (% borderline or abnormal scores) (2013)



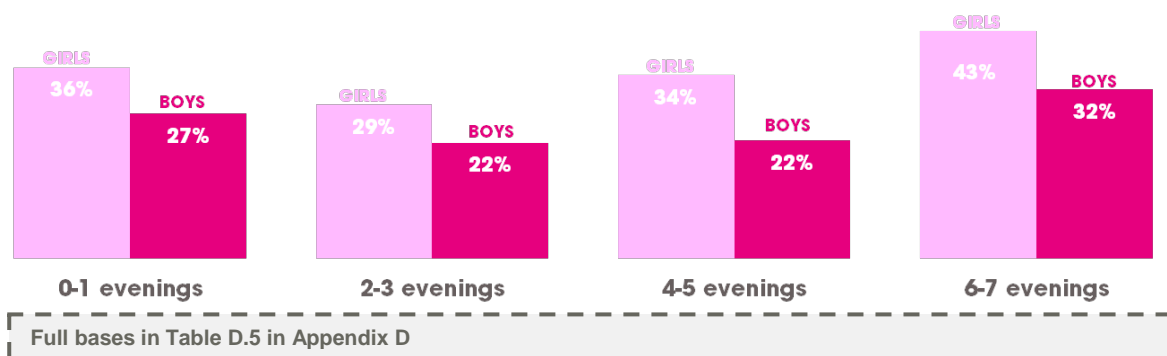
3.15 Although all of the individual SDQ scales were related to the number of friends a pupil had, unsurprisingly, the strongest association was with peer problems. Hyperactivity was the least strongly related to number of friends (Figure 3.15).

Table 3.5 Average WEMWBS score by number of friends (2013)

Number of close friends	Average WEMWBS score	Bases
None	39.7	441
One	43.8	922
Two	46.4	3604
Three or more	49.6	22771

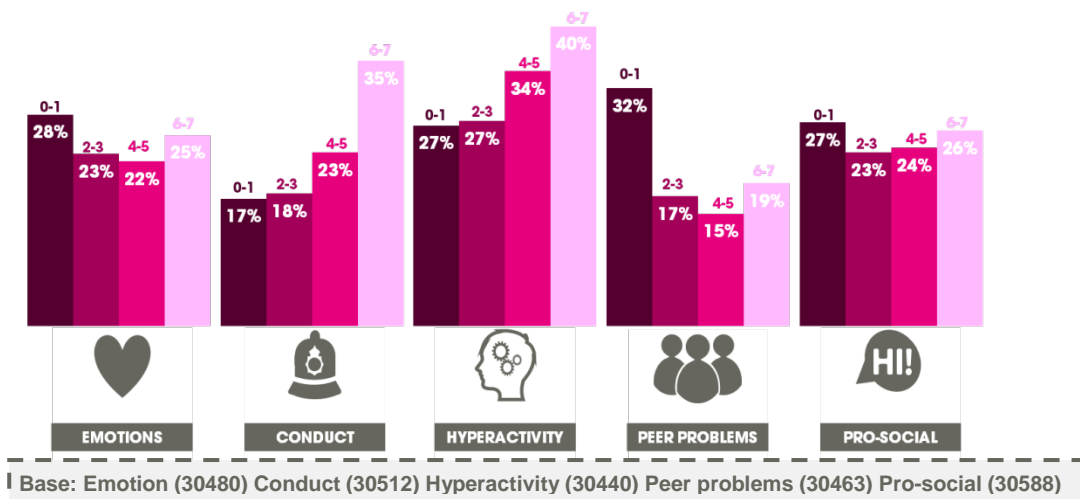
3.16 As the number of friends a pupil had increased, so did the average WEMWBS score. Those with three or more friends had the highest average mental health and wellbeing (Table 3.5).

Figure 3.16 Overall SDQ score by number evenings spent with friends and sex (% borderline or abnormal scores) (2013)



3.17 Spending a lot of time out with friends was associated with greater difficulties - pupils who spend 6-7 nights a week out with friends were most likely to have borderline or abnormal overall SDQ score. However, pupils who spent little or no time out with friends also were more likely to have higher borderline or abnormal scores. (Figure 3.16). In contrast, those who spent between 2 and 5 evenings with friends were the least likely to have a borderline or abnormal score.

Figure 3.17 Individual scores by number of evenings out with friends (% borderline or abnormal scores) (2013)



3.18 The individual SDQ scales did not all interact with evenings spent out with friends in the same way. While conduct problems and hyperactivity were associated most strongly with spending 6-7 nights out a week, peer problems, emotional problems and pro-social problems were most closely related to spending 0-1 nights out with friends a week (Figure 3.17).

Table 3.6 Average WEMWBS score by number of evenings spent with friends (2013)

Number of evenings spent out with friends	Average WEMWBS score	Bases
0-1 evenings	47.4	5508
2-3 evenings	49.2	10371
4-5 evenings	49.6	8392
6-7 evenings	48.2	4233

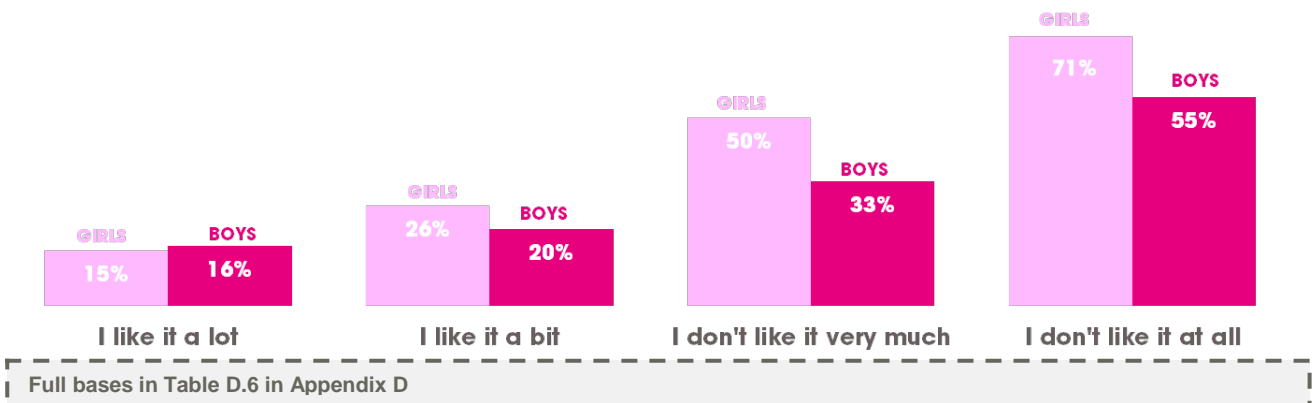
3.19 Spending little or no time out with friends was related to lower levels of mental wellbeing – the lowest average WEMWBS score was among those that spent 0-1 evenings out with friends per week (Table 3.6).

School

Existing findings from other sources

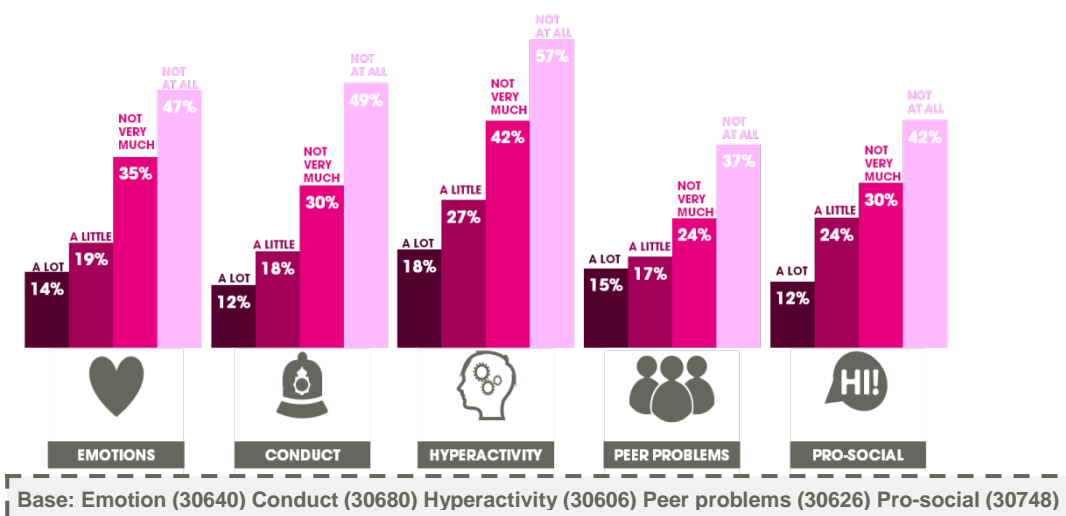
- Absenteeism and truancy rates were particularly high among those with socialised conduct disorder: 87% of young people with a conduct disorder had been absent in the previous term (6).

Figure 3.18 Overall SDQ score by sex and by whether like school (% borderline or abnormal score) (2013)



3.20 Whether or not a pupil liked school had a very clear relationship with overall SDQ score. Those that disliked school were far more likely to have a borderline or abnormal SDQ score. As with many of the other variables, this relationship was more evident among girls than boys (Figure 3.18). Girls who said that they did not like school at all were nearly five times more likely to have a borderline or abnormal score as those who said that they liked school a lot.

Figure 3.19 Individual scores by whether like school (% borderline or abnormal scores) (2013)



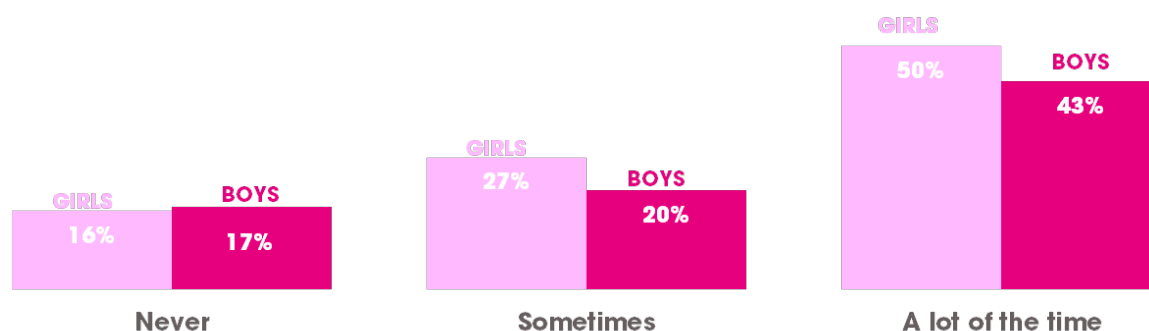
3.21 Whether or not a pupil liked school was strongly associated with all of the individual SDQ scales, particularly conduct problems (Figure 3.19).

Table 3.7 Average WEMWBS score by whether like school (2013)

Whether like school	Average WEMWBS score	Bases
I like it a lot	54.6	5537
I like it a bit	49.8	14857
I don't like it very much	44.8	5451
I don't like it at all	39.8	2697

3.22 In line with the emotional and behaviour difficulties scores, mental health and wellbeing was linked to liking school – pupils that disliked school the most had the lowest average WEMWBS score (Table 3.7).

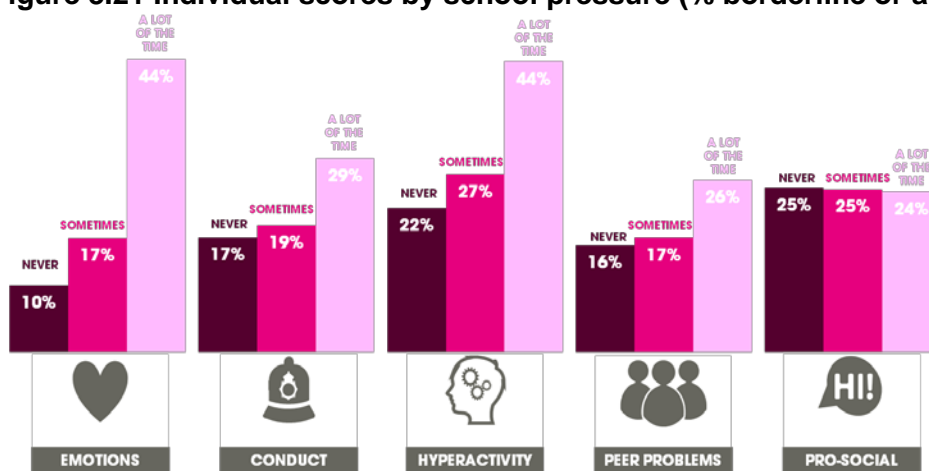
Figure 3.20 Overall SDQ score by sex and by school pressure (% borderline or abnormal score) (2013)



Full bases in Table D.7 in Appendix D

3.23 Pupils who felt pressured by school work a lot of the time were much more likely to report borderline or abnormal overall SDQ scores (Figure 3.20). Girls who felt pressured a lot of the time were three times more likely to have a borderline or abnormal score than those who never felt pressure.

Figure 3.21 Individual scores by school pressure (% borderline or abnormal scores) (2013)



Base: Emotion (30792) Conduct (30828) Hyperactivity (30755) Peer problems (30778) Pro-social (30901)

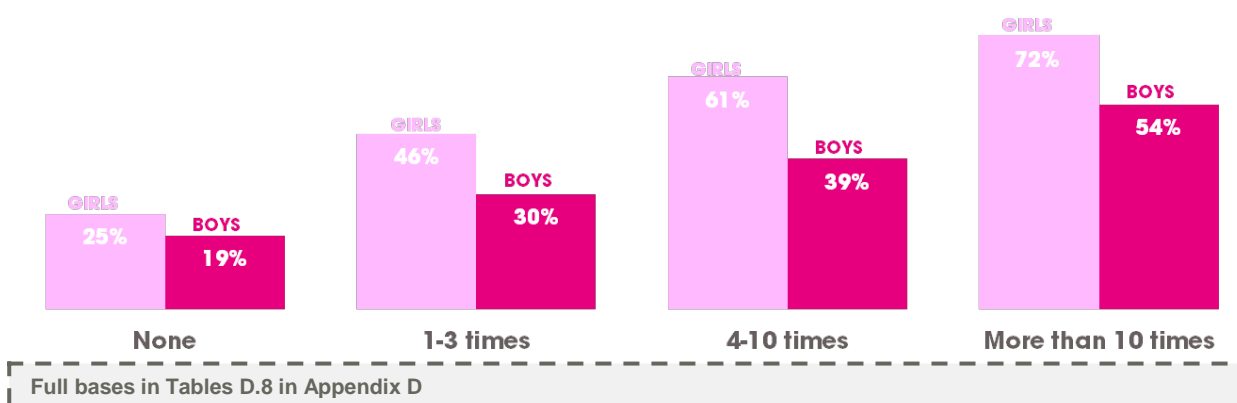
3.24 The individual SDQ scales were also related to feeling pressure from schoolwork, with the exception of the pro-social scale. The relationship was most evident in relation to emotional problems – those that felt a lot of pressure were more than four times more likely to have a borderline or abnormal score than those that never feel pressure (Figure 3.21).

Table 3.8 Average WEMWBS score by school pressure (2013)

Whether feel pressured by school work	Average WEMWBS score	Bases
Never	52.7	4444
Sometimes	50.2	16107
A lot of the time	44.2	8126

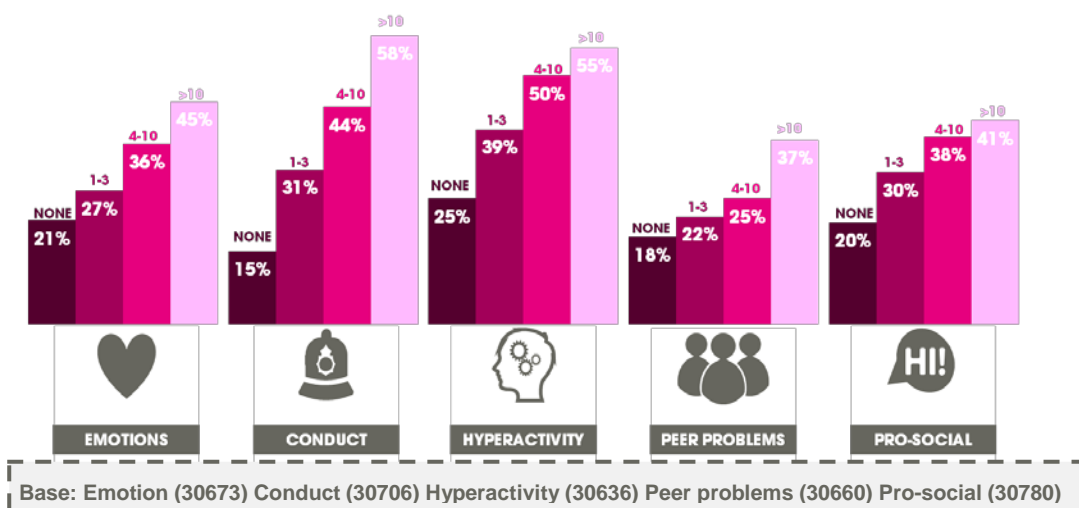
3.25 As with the SDQ scales, mental wellbeing was related to feeling pressure from schoolwork. Those that felt pressure a lot of the time had the lowest average WEMWBS scores (Table 3.8).

Figure 3.22 Overall SDQ score by sex and by number of times truanted (2013) (% borderline or abnormal score)



3.26 In line with the other school related variables, truancy was associated with overall difficulties. The more frequently a pupil truanted, the more likely they were to have a borderline or abnormal overall SDQ score (Figure 3.22).

Figure 3.23 Individual SDQ scores by number of times truanted (% borderline or abnormal scores) (2013)



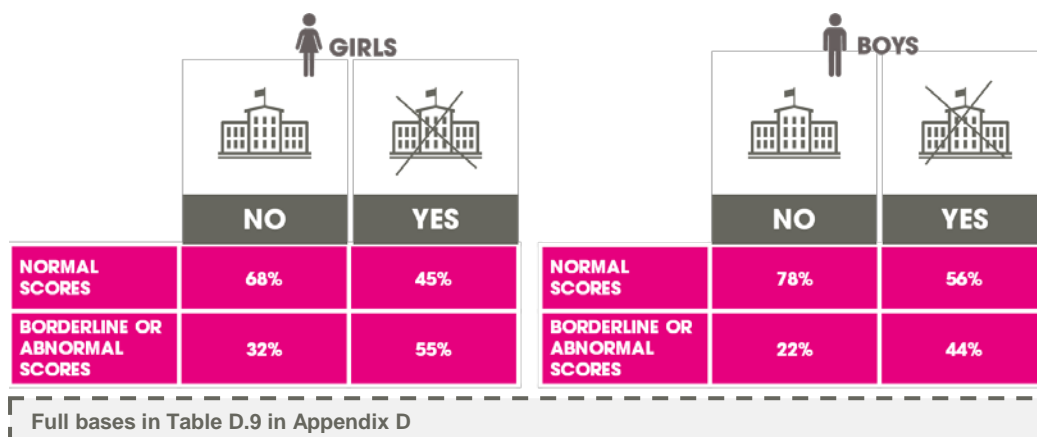
3.27 Truancy was most strongly correlated with conduct problems. Those that had truanted were four times as likely to have a borderline or abnormal score as those who had never truanted. However, all of the individual SDQ scales had a relationship with truancy (Figure 3.23).

Table 3.9 Average WEMWBS score by truanting (2013)

Number of times truanted	Average WEMWBS score	Bases
None	50.1	19147
1-3 times	47.5	6642
4-10 times	44.8	1830
More than 10 times	41.8	955

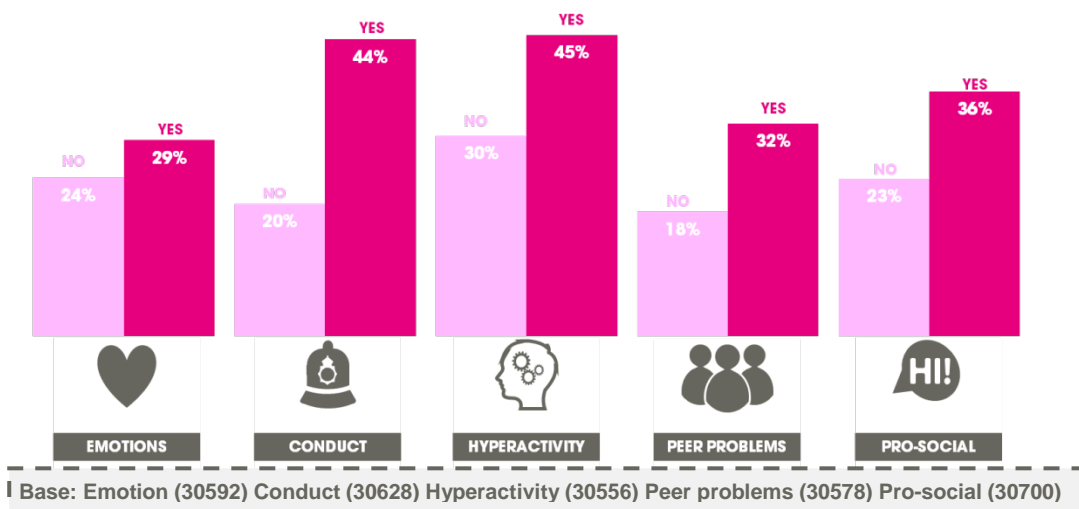
3.28 Lower WEMWBS scores, suggesting lower mental wellbeing, were evident among those that truanted more frequently (Table 3.9).

Figure 3.24 Overall SDQ score by sex and by exclusion (2013)



3.29 Pupils who had even been excluded from school were more likely to have a borderline or abnormal overall SDQ score (Figure 3.24).

Figure 3.25 Individual SDQ scores by whether ever excluded (% borderline or abnormal scores) (2013)



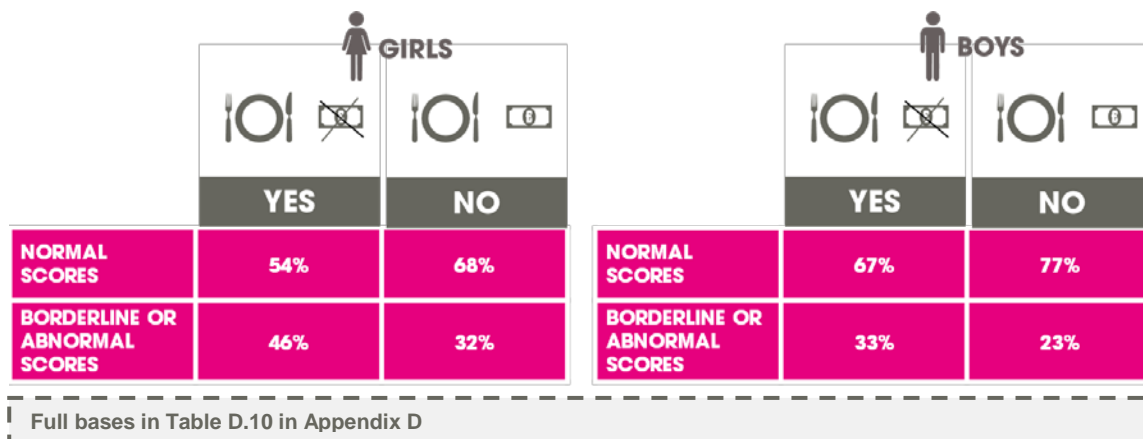
3.30 Pupils who had been excluded were more likely to have borderline or abnormal scores on every individual SDQ score. As with truanting, the association was strongest between exclusion and conduct problems (Figure 3.25).

Table 3.10 Average WEMWBS score by exclusion (2013)

Ever excluded	Average WEMWBS score	Bases
Yes	46.1	2490
No	49.1	26000

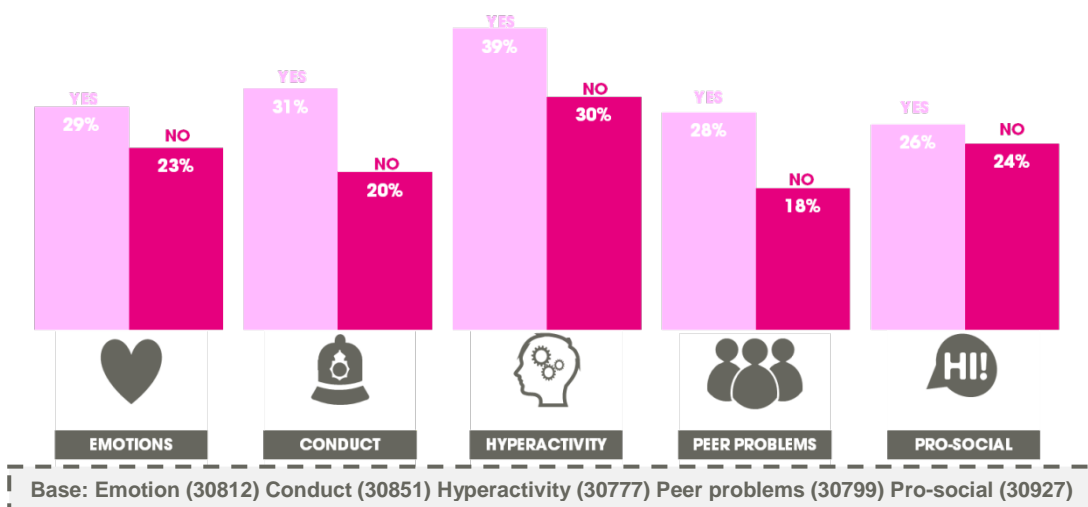
3.31 Mental wellbeing was associated with exclusion – those that had been excluded had a lower average WEMWBS score than those that had not (Table 3.10).

Figure 3.26 Overall SDQ score by sex and by Free School Meal (FSM) entitlement⁵ (2013)



3.32 Those that reported that they were entitled to receive free school meals⁶ were more likely to have a borderline or abnormal overall SDQ score (Figure 3.26).

Figure 3.27 Individual SDQ scores by Free School Meal (FSM) entitlement (% borderline or abnormal scores) (2013)



3.33 With the exception of the pro-social scale, each of the individual SDQ measures was related to free school meal entitlement. As before, entitlement to free school meals was associated with higher proportions of borderline or abnormal scores (Figure 3.27).

⁵ Free school meals are provided to those whose parents receive benefits or incomes fall below a certain threshold. As such, free school meal entitlement is often used as a proxy for the level of deprivation of pupils' families.

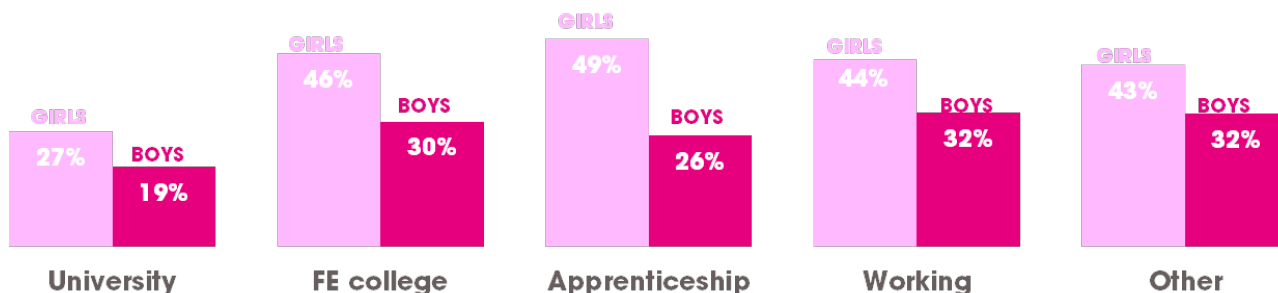
⁶ Figures on free school meals entitlement were based on pupils' survey responses and not official records. Official records show 41,744 pupils (15% of pupils) were registered for free meals in Scottish secondary schools in 2013. In SALSUS 2013, 12% of pupils said they received free school meals – which is very similar. <http://www.gov.scot/Resource/0047/00479422.pdf>

Table 3.11 Average WEMWBS score by Free School Meal (FSM) entitlement (2013)

Free School Meal entitlement	Average WEMWBS score	Bases
Yes	47.2	3229
No	49.1	23172

3.34 Mental wellbeing was lower among those who were in receipt of free school meals (Table 3.11).

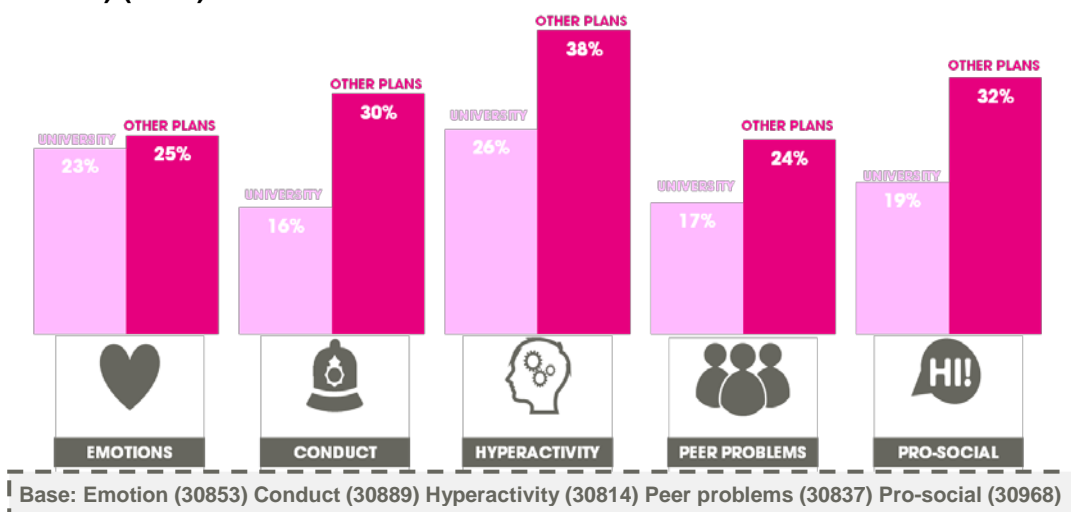
Figure 3.28 Overall SDQ score by expectations after school and sex⁷ (% borderline or abnormal score) (2013)



Full bases in Table D.11 in Appendix D

3.35 With regard to post-school expectations, those who thought they would go to university were less likely to have borderline or abnormal scores than all other groups (Figure 3.28).

Figure 3.29 Individual SDQ scores by expectations after school (% borderline or abnormal scores) (2013)



Base: Emotion (30853) Conduct (30889) Hyperactivity (30814) Peer problems (30837) Pro-social (30968)

3.36 While expecting to go to university after school was associated with lower levels of borderline or abnormal scores among four of the five individual SDQ scales, it was not closely related to emotional problems (Figure 3.29).

⁷ Answers in the 'other' category includes youth training, unemployed, don't know and those that said other.

Table 3.12 Average WEMWBS score by expectations after school (2013)

Expectations after school	Average WEMWBS score	Bases
University	49.9	16992
FE college	46.6	4788
Apprenticeship	50.5	1328
Working	47.9	2305
Other	46.4	4406

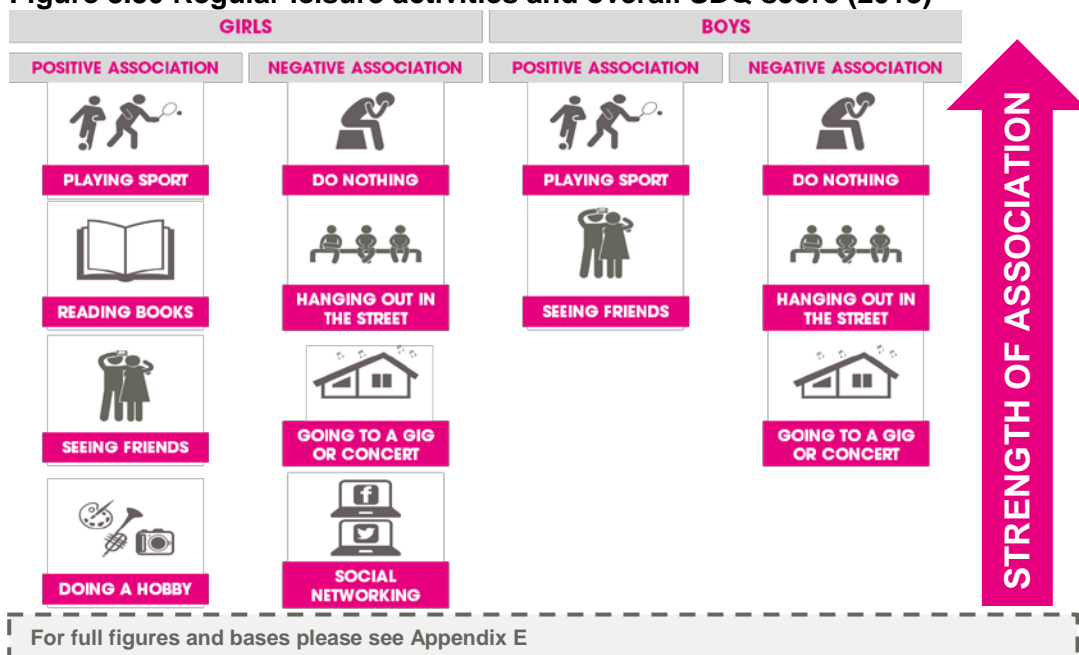
3.37 Those that thought they would complete an apprenticeship after school had the highest average WEMWBS score, closely followed by those who thought that they would go to university (Table 3.12).

Leisure activities

Existing findings from other sources

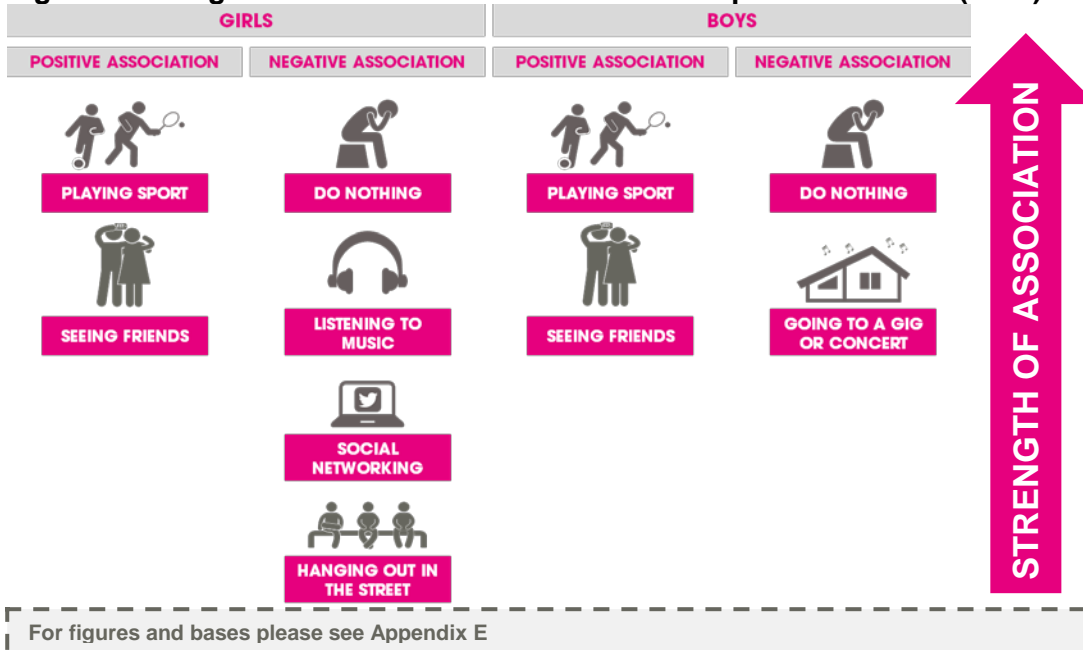
- Participation in leisure activities had a significant impact on young people’s mental health. However this depended on the type of leisure activity: active leisure was associated with better mental health while sedentary leisure was associated with poorer mental health (10).

Figure 3.30 Regular leisure activities and overall SDQ score (2013)



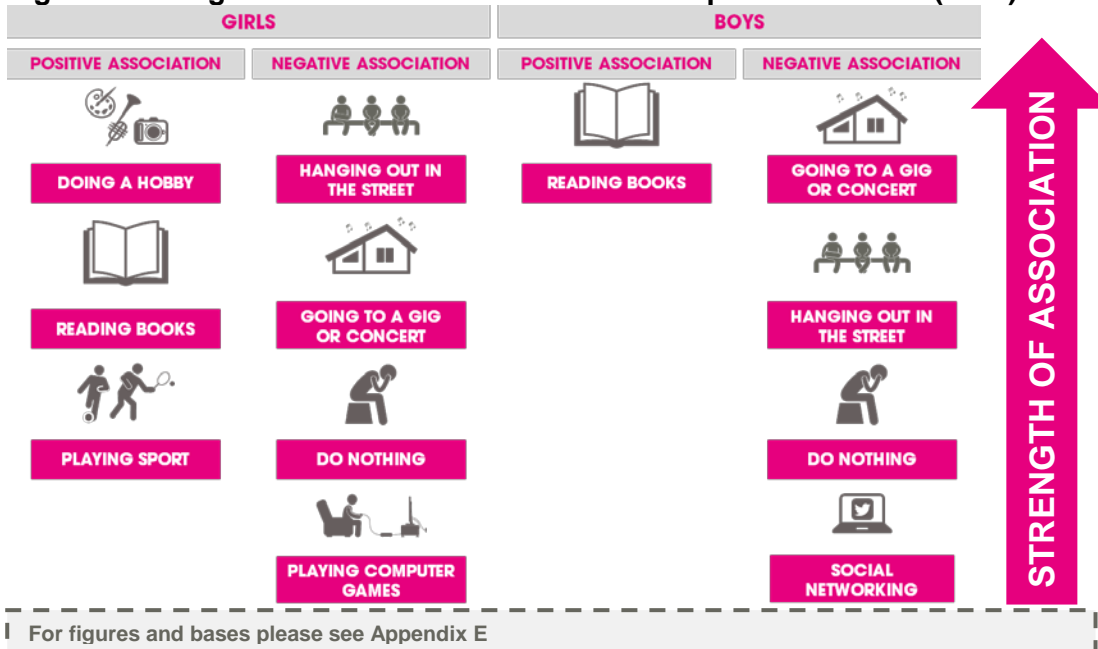
3.38 Among boys and girls, playing sport and seeing friends at least weekly were associated with lower proportions of borderline or abnormal overall SDQ scores. In contrast, doing nothing, hanging out in the street and going to a concert or gig at least once a week were linked to higher proportions of borderline or abnormal overall SDQ scores (Figure 3.30).

Figure 3.31 Regular leisure activities and emotional problems score (2013)



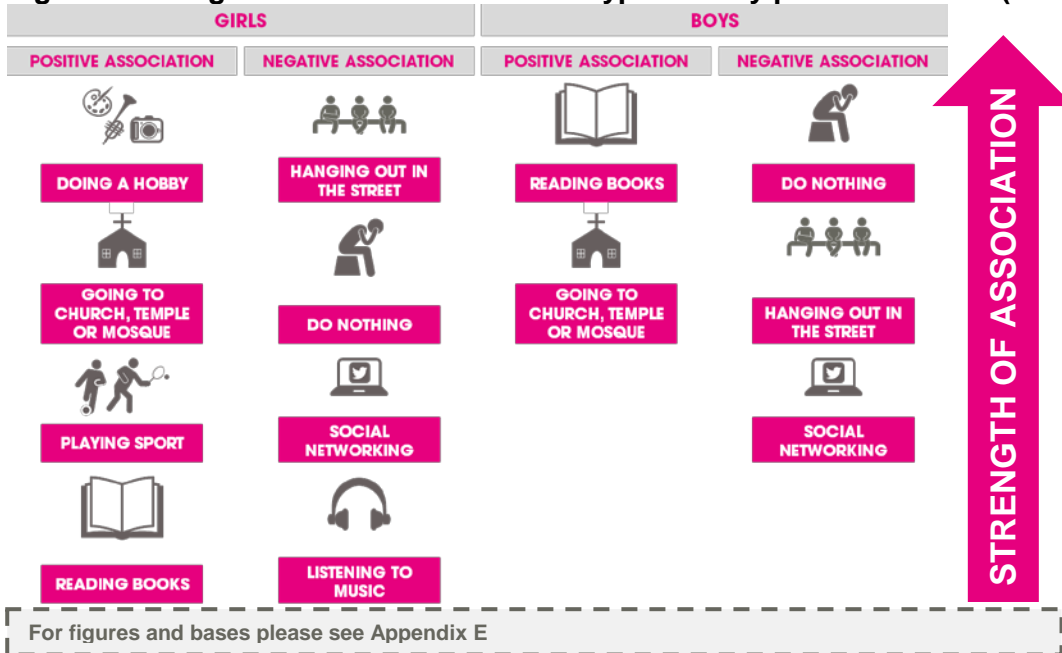
3.39 As with the overall SDQ score, emotional problems were related to doing nothing (in boys and girls), hanging out in the street (in girls) and going to a concert or gig (in boys) at least weekly. However, among girls they were also associated with social networking and listening to music on a weekly basis. Playing sport and seeing friends were related to lower levels of emotional problems (Figure 3.31).

Figure 3.32 Regular leisure activities and conduct problems score (2013)



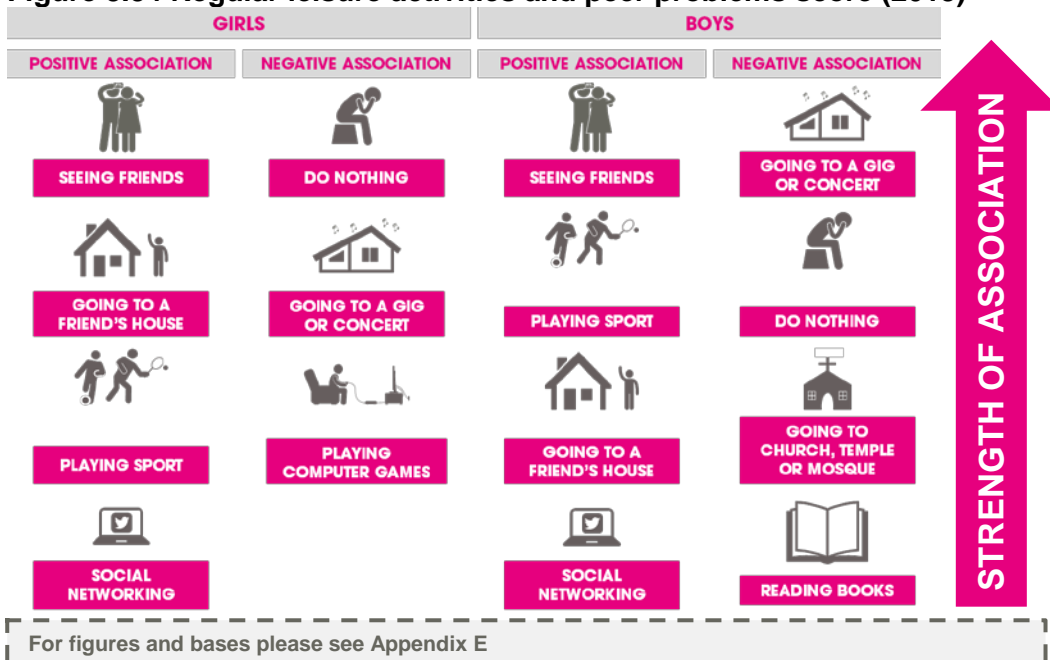
3.40 Reading books at least weekly was associated with lower levels of conduct problems in boys and girls, whereas higher levels were associated with hanging out in the street, going to a concert or gig and doing nothing at least weekly (Figure 3.32).

Figure 3.33 Regular leisure activities and hyperactivity problems score (2013)



3.41 Going to church, temple or mosque and reading books on a weekly basis were associated with lower levels of hyperactivity among boys and girls. In contrast, hanging out in the street, doing nothing and using social networking were linked to higher levels of hyperactivity in both sexes (Figure 3.33).

Figure 3.34 Regular leisure activities and peer problems score (2013)



3.42 Seeing friends, playing sport and going to a friend's house at least weekly were all associated with lower proportions reporting borderline or abnormal peer problems scores. Unlike a number of the other individual SDQ scales, social networking was also linked to lower levels of peer problems. As with the other individual SDQ scales, doing nothing and going to a gig or concert at least weekly were related to higher levels of peer problems (Figure 3.34).

Figure 3.35 Regular leisure activities and pro-social score (2013)



3.43 Playing sport, doing a hobby, and reading books at least weekly were associated with pro-social behaviours among both sexes. Doing nothing and going to a gig or concert at least weekly were associated with lower levels of pro-social behaviour (Figure 3.35).

Table 3.13 Average WEMWBS scores by frequency of leisure activities (2013)

Leisure activities	At least once a week	Less often
Do nothing	44.9	50.0
Go to concerts/gigs	47.3	49.0
Hanging out in the street	47.8	49.4
Do a hobby	47.9	49.5
Social networking	48.6	50.0
Listen to music	48.9	49.3
Watch DVDs	48.9	48.4
Go to shops	49.1	48.3
Go to cinema	49.1	48.7
Go to friends house	49.1	48.2
Read magazines	49.2	48.7
See friends	49.4	46.5
Play computer games	49.5	47.7
Volunteer	49.5	48.7
Read books	49.6	48.2
Go to church	50.1	48.6
Play sports	50.5	45.8
Watch sports	50.6	48.1

3.44 Watching and playing sport at least weekly were most strongly related to higher levels of mental health and wellbeing, while doing nothing, going to concerts and gigs and hanging out in the street at least weekly were the strongest negatively associated activity (Table 3.13).

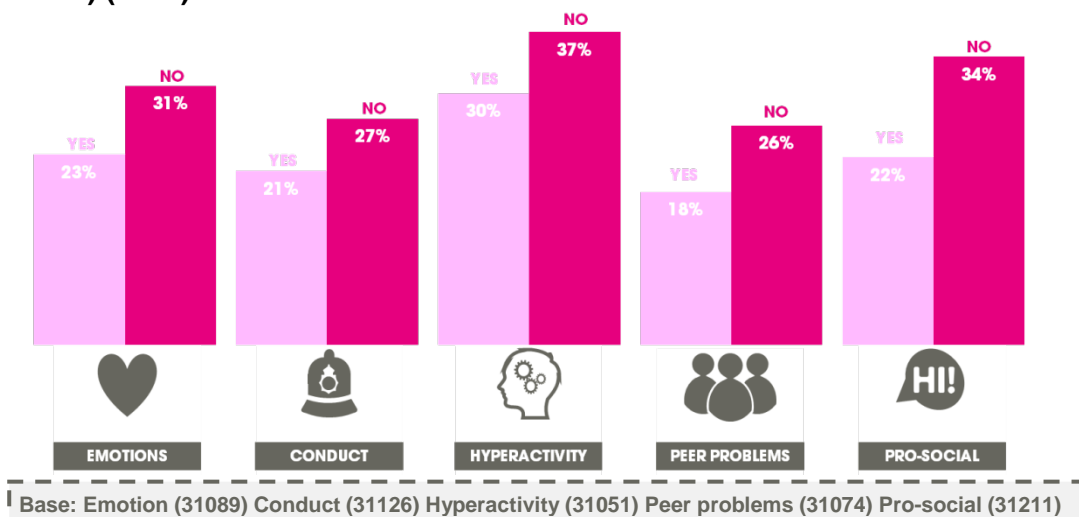
Figure 3.36 Group/club membership by overall SDQ score and sex (2013)

	GIRLS		BOYS	
	ATTENDED A GROUP OR CLUB	NOT ATTENDED A GROUP OR CLUB	ATTENDED A GROUP OR CLUB	NOT ATTENDED A GROUP OR CLUB
NORMAL SCORES	69%	55%	77%	68%
BORDERLINE OR ABNORMAL SCORES	31%	45%	23%	32%

Full bases in Appendix E

3.45 Those who had attended a group or club (e.g. youth groups, drama clubs, sports clubs or computer clubs etc.) were less likely to have a borderline or abnormal overall SDQ score (Figure 3.36).

Figure 3.37 Individual SDQ scores by group/club membership (% borderline or abnormal score) (2013)



3.46 As with overall SDQ score, the individual scales all showed a relationship with group/club membership. For each scale, group membership was associated with a lower proportion of pupils reporting borderline or abnormal scores (Figure 3.37).

Table 3.14 Average WEMWBS score by club membership (2013)

Member of a club or group?	Average WEMWBS score	Bases
Yes	49.6	23474
No	45.5	5348

3.47 In line with the correlation between group membership and difficulties scores, group membership was also associated with higher levels of mental health and wellbeing (Table 3.14).

4 Equalities and mental health and wellbeing in 2013

Key Findings

- Girls were more likely than boys to have borderline or abnormal scores for the overall SDQ scale, emotional problems and hyperactivity. However, boys were more likely than girls to have problems with conduct, peers or pro-social behaviour.
- Emotional and behavioural problems appeared to increase, while mental health and wellbeing decreased as pupils moved further into adolescence.
- Pupils who reported that they had a limiting illness or disability tended to suffer from poorer mental health and wellbeing as well as poorer physical health.
- Pupils who had a mixed or multiple ethnicity were more likely to suffer from poor mental health and wellbeing than those from other ethnicities.
- Higher levels of deprivation were correlated with poorer mental health and wellbeing. Both Scottish Index of Multiple Deprivation (SIMD) and perceived family affluence, showed a relationship with mental health and wellbeing. However, perceived family affluence had a stronger association than the geography based measure of deprivation (SIMD).

Existing findings from other sources

- Rates of mental health problems among children increase as they reach adolescence. Disorders affect 10% of boys aged 5-10, rising to 13% of boys aged 11-15, and 6% of girls aged 5-10, rising to 10% of girls aged 11-15. (6)
- Prevalence of depressed mood or anxiety was 2.5 times higher among young people aged 10 to 15 years with low socioeconomic status than among youths with a higher socioeconomic status (11).
- The parents of children with an emotional disorder were more than four times as likely as other parents to say that their child's general health was fair or bad (23 per cent compared with 5 per cent) (6).
- In terms of young people aged 5-16 years, 9% of children from Black backgrounds, 8% of children from Pakistani and Bangladeshi backgrounds, and 3% of children from Indian backgrounds had a mental disorder compared to 10% of children from White backgrounds (12).

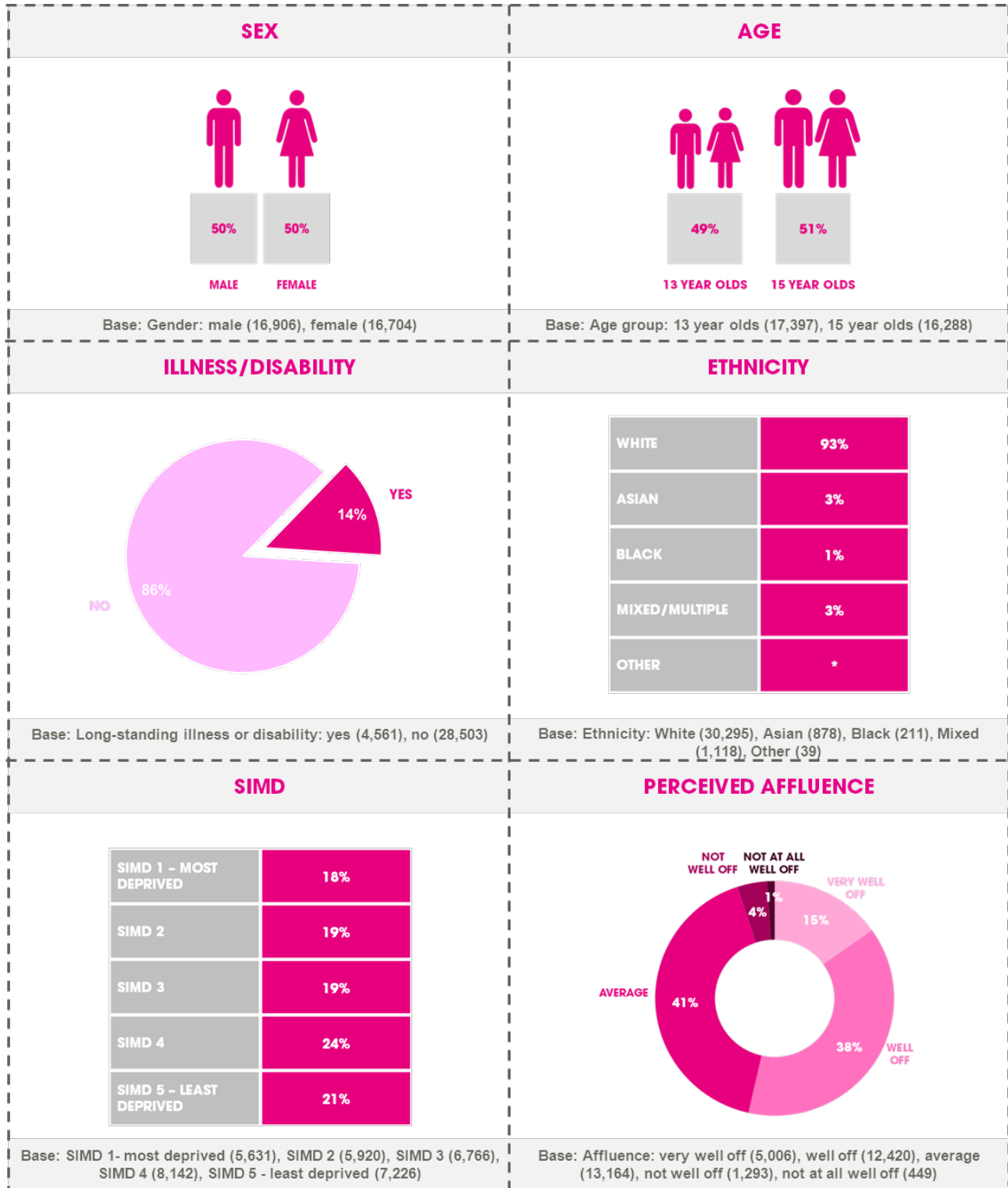
Equalities questions in SALSUS

- 4.1 The equalities variables considered in this report are sex, age, illness/disability, ethnicity and deprivation (SIMD and perceived family affluence).

Equalities variables in SALSUS 2013

4.2 Figure 4.1 shows the breakdown of the sample for each of the equalities variables included in the SALSUS survey.

Figure 4.1 – Pupil breakdown of equalities variables, 2013



- 4.3 It should be borne in mind that using SIMD means that we are looking at an area based measure to identify deprivation in individuals. Many people who are materially disadvantaged as individuals live in areas that are not particularly deprived in terms of SIMD; equally, many people living in deprived areas (as identified by SIMD) may not be particularly disadvantaged. For that reason, it is also important to look at family level measures of deprivation (perceived affluence).
- 4.4 In 2013, 37% of pupils did not supply a postcode – either because they did not know it or did not want to write it in. Missing postcodes were imputed by sorting the data by class within schools. If a postcode was missing, the postcode of another randomly selected pupil from the same class was used.
- 4.5 The figures suggest that those who did not provide a postcode were more likely to be those living in areas of deprivation (see Table 4.1). Imputing the postcodes improved this but those living in the most deprived areas were still underrepresented. The data was weighted to account for these differences.

Table 4.1 SALSUS 2013 – SIMD by postcode imputation⁸

	SIMD before postcode imputation and checking	SIMD after postcode imputation and checking	SIMD after weighting applied	Population estimates for 13 and 15 year olds 2013⁹
SIMD 1 – most deprived	16%	17%	18%	20%
SIMD 2	17%	18%	19%	18%
SIMD 3	20%	20%	19%	19%
SIMD 4	24%	24%	24%	21%
SIMD 5 – least deprived	22%	21%	21%	21%
<i>Bases</i>	33,685	33,685	33,685	115,915

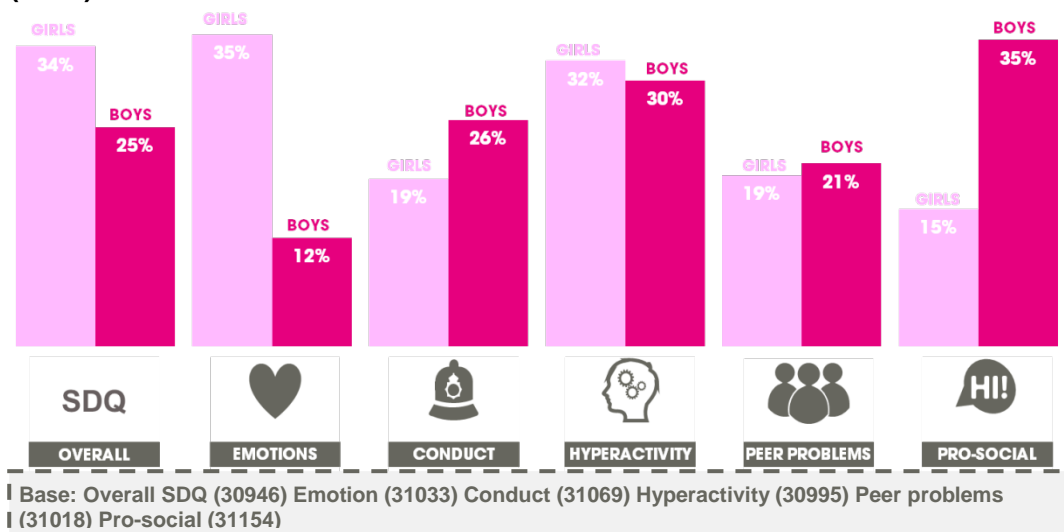
Equalities variables by mental health and wellbeing

- 4.6 Overall, girls were more likely than boys to have a borderline or abnormal SDQ score. While girls were more likely to have borderline or abnormal scores for emotional problems and hyper activity, boys were more likely to have borderline or abnormal scores on the conduct, hyperactivity and pro-social scales (Figure 4.2).

⁸ Some of these postcodes were incorrect due to scanning errors and were manually edited rather than imputed

⁹ <http://www.nrscotland.gov.uk/statistics-and-data/statistics/statistics-by-theme/population/population-estimates/special-area-population-estimates/population-estimates-by-simd-2012>

Figure 4.2 SDQ scales, including overall score, by sex (% borderline or abnormal score) (2013)



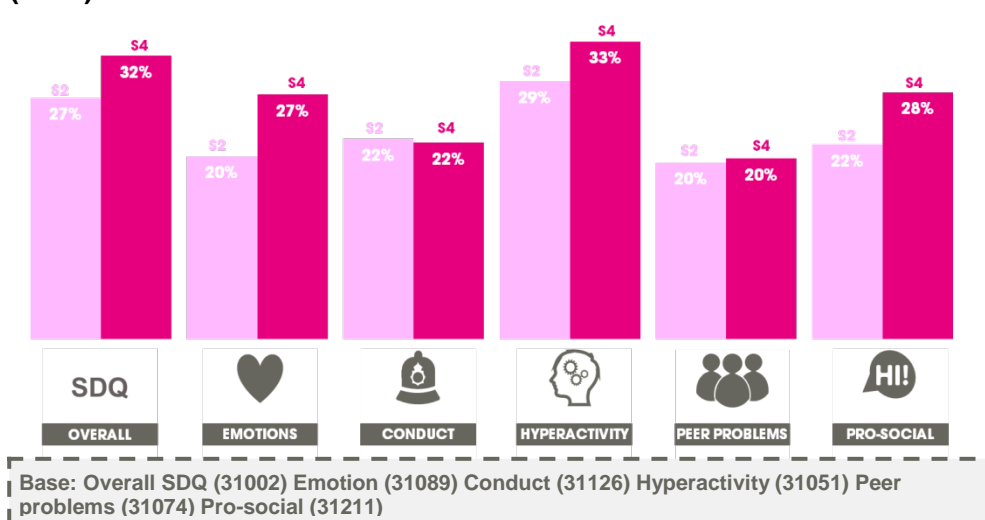
4.7 Boys also had a higher average WEMWBS score than girls indicating higher levels of mental wellbeing (Table 4.2).

Table 4.2 Average WEMWBS score by sex

Sex	Average WEMWBS score	Base
Male	50.7	14976
Female	46.8	15017

4.8 A higher proportion of 15 year olds had borderline or abnormal scores on the overall SDQ, emotions, hyperactivity and pro-social scales than 13 year olds. There was no difference between the year groups on the conduct and peer problems scales (Figure 4.3).

Figure 4.3 SDQ scales, including overall score, by age (% borderline or abnormal score) (2013)



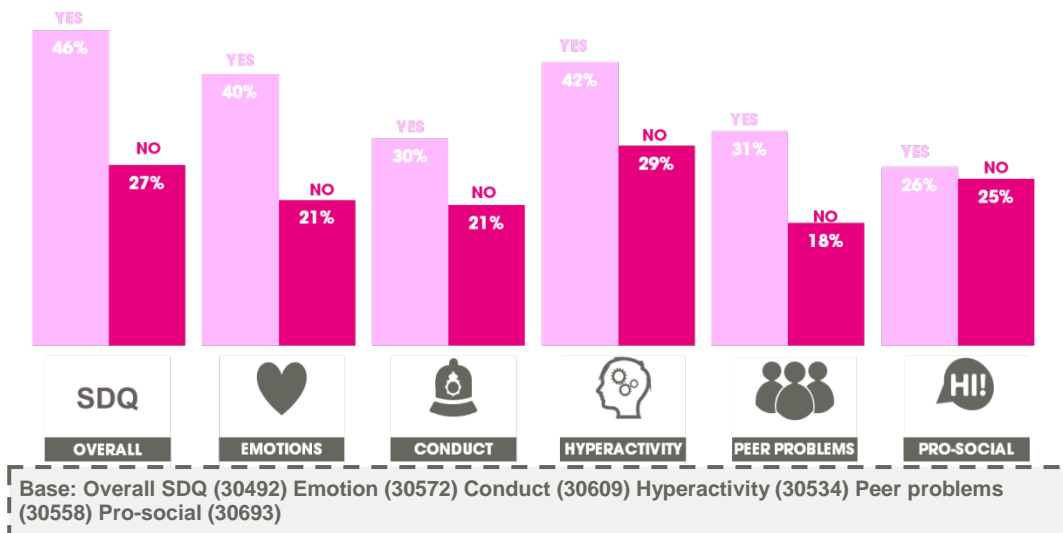
4.9 13 year olds had a higher average WEMWBS score than 15 year olds suggesting that they are more likely to have better mental wellbeing (Table 4.3).

Table 4.3 Average WEMWBS score by age

Age	Average WEMWBS score	Base
S2	50.0	15107
S4	47.6	14936

4.10 Having a limiting illness or disability was associated with higher borderline or abnormal scores on all of the SDQ scales, with the exception of the pro-social scale, but including the overall difficulties score (Figure 4.4).

Figure 4.4 SDQ scales, including overall score, by whether have limiting illness or disability (% borderline or abnormal score) (2013)



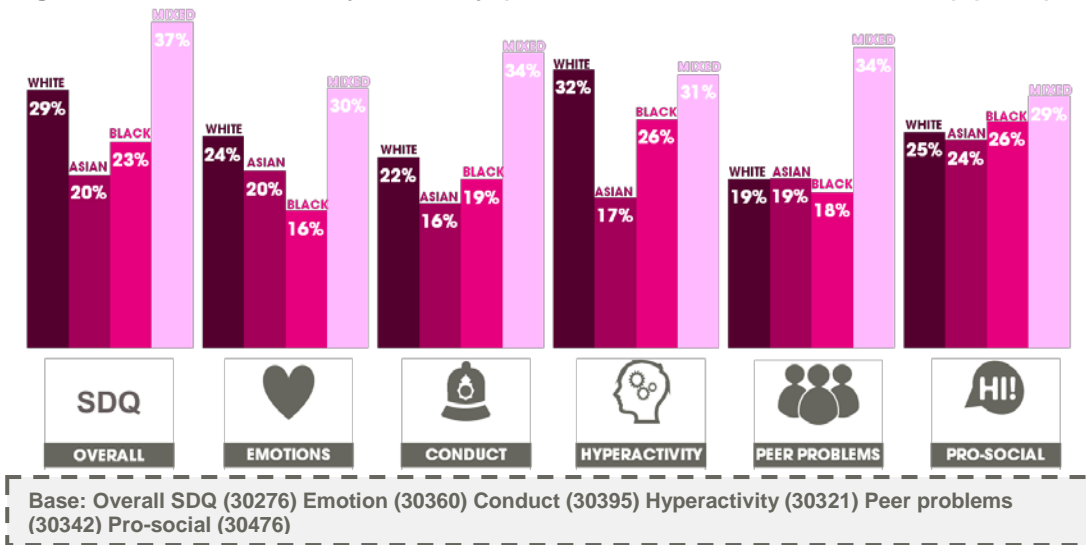
4.11 Those with a limiting illness or disability had lower levels of mental health and wellbeing than those who did not (Table 4.4).

Table 4.4 Average WEMWBS score by illness or disability

Limiting illness or disability	Average WEMWBS score	Base
Yes	45.0	4112
No	49.3	25563

4.12 Pupils who had a mixed or multiple ethnicity were most likely to have a borderline or abnormal score on every SDQ scale except for hyperactivity. Asian pupils were least likely to have emotional and behavioural difficulties (Figure 4.5).

Figure 4.5 SDQ scores by ethnicity (% borderline or abnormal score) (2013)



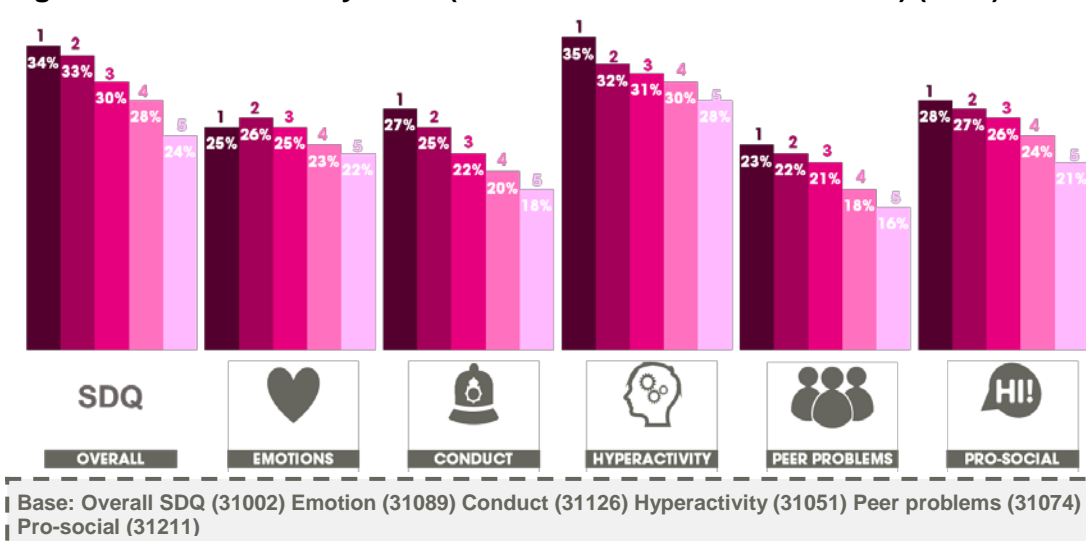
4.13 In line with the SDQ figures, it was pupils with a mixed or multiple ethnicity who had the lowest average mental health and wellbeing score (Table 4.5).

Table 4.5 Average WEMWBS score by ethnicity

Ethnicity	Average WEMWBS score	Base
White	48.8	27293
Asian	49.3	777
Black	49.7	177
Mixed	47.1	945

4.14 Pupils who lived in the most deprived areas were most likely to have a borderline or abnormal score on every SDQ measure except emotional problems which did not show such a clear cut relationship with SIMD (Figure 4.6).

Figure 4.6 SDQ scales by SIMD (% borderline or abnormal score) (2013)



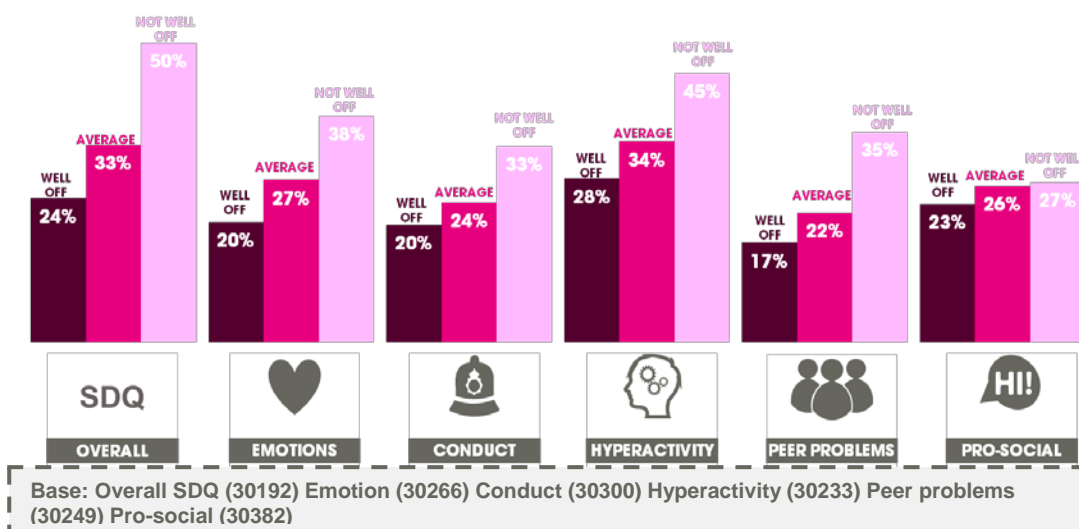
4.15 Average mental wellbeing increased as deprivation level decreased. However, the relationship was not that strong (Table 4.6).

Table 4.6 Average WEMWBS score by SIMD

SIMD	Average WEMWBS score	Base
1 - Most deprived quintile	48.0	4789
2	48.5	5264
3	48.2	6101
4	49.2	7312
5 - Least deprived quintile	49.5	6577

4.16 Perceived family affluence had a stronger relationship with emotional and behavioural difficulties than SIMD. Pupils who thought that their family was not well off were more likely to have borderline or abnormal scores on each of the individual SDQ measures with the exception of the pro-social scale (Figure 4.7).

Figure 4.7 SDQ scales by perceived affluence (% borderline or abnormal score) (2013)



4.17 Pupils who thought that their family was either very or quite well off had higher levels of mental health and wellbeing than those who thought that their family was not or not at all well off (Table 4.7).

Table 4.7 Average WEMWBS score by perceived affluence

Perceived affluence	Average WEMWBS score	Base
Very well off	51.5	4395
Quite well off	50.1	11322
Average	47.3	11956
Not well off	43.9	1161
Not at all well off	42.3	377

5 Predictors of mental health and wellbeing

Key findings

There is very little difference in the predictors of mental health and wellbeing among girls and boys.

Views on school and school-work and the number and nature of friendships are the key drivers of mental health and wellbeing among girls and boys.

- Feeling pressured by schoolwork, not liking school, frequent truanting, and exclusion from school all had a large impact on the likelihood to have a borderline or abnormal overall SDQ score.
- Number of close friends, evenings spent with friends, and the ages of friends all had an impact on overall SDQ scores.

A range of other factors are associated with mental health and wellbeing such as family affluence, parental knowledge and some leisure activities. However, these are not as closely associated with mental health as views on school and friendship patterns.

Once all other factors are included, age does not have a large impact on mental health and wellbeing.

- 5.1 Logistic regression is used to predict an outcome using several predictor variables. In this report, logistic regression was used to predict borderline or abnormal scores on the components of the Strengths and Difficulties questionnaire and the overall SDQ score. The data used was limited to 2013 and the models were run separately for girls and boys¹⁰.
- 5.2 The main benefit of using logistic regression in this context is to clearly distinguish the different effects of the various factors. By including in the logistic regression models, for example, the Scottish Index of Multiple Deprivation (SIMD) and perceptions of family affluence, it is possible to separate the effect of each of these. This means that any significant difference by any factor is independent of any other factors (i.e. whether area deprivation is a significant factor that is separate from family affluence).
- 5.3 Two sets of six logistic regression models were run separately for boys and girls: borderline or abnormal versus normal scores on the five components of SDQ and the overall SDQ score. These were run separately because of the sizeable differences in the profile of mental health and wellbeing scores for boys and girls.

¹⁰ Analysis was limited to 2013 due to the changes in the prevalence of borderline or abnormal scores across time.

- 5.4 The potential factors included in each of the logistic regressions were those analysed across the six themes covered earlier in this report: geography, family, friends, school, leisure activities and equalities variables. The factors included are summarised in Table 5.1.
- 5.5 All models were run three times: with all variables included, using forward conditional selection and backward conditional selection. Forward and backward conditional selections only retain variables in the model that have some explanatory power. Overall, almost all explanatory variables had an impact in at least one of the models. The full results of every model (with the non-significant factors included) are shown in Appendix F.

Table 5.1 – Factors included in each logistic regression

Geography	Family	Friends	School	Leisure activities	Equalities
<ul style="list-style-type: none"> Rurality 	<ul style="list-style-type: none"> Family status Maternal knowledge Paternal knowledge 	<ul style="list-style-type: none"> Age of friends Number of close friends Number of evening spent with friends 	<ul style="list-style-type: none"> Attitude to school Whether pressured by school work Truancing Exclusion Expectations after school 	<ul style="list-style-type: none"> Group/ club membership Weekly participation in various leisure activities 	<ul style="list-style-type: none"> Sex Age Perceived family affluence Scottish Index of Multiple Deprivation (SIMD) Free School Meal entitlement

What the models show

Key drivers of mental health and wellbeing among girls

- 5.6 Figure 5.1 highlights the key drivers of borderline or abnormal mental health and wellbeing scores among girls. The detailed regression results can be found in Tables 1a and 1b in Appendix F).

Figure 5.1 Summary of key drivers of borderline or abnormal mental health among girls in 2013¹¹

	SIGNIFICANT FACTOR?					
	EMOTION	CONDUCT	HYPER-ACTIVITY	PEER	PRO-SOCIAL	SDQ OVERALL
PRESSURED BY SCHOOLWORK	YES, A LOT	YES, A LOT	YES, A LOT	YES, SOME	YES, SOME†	YES, A LOT
LIKE SCHOOL	YES, A LOT	YES, A LOT	YES, A LOT	YES, A LOT	YES, A LOT	YES, A LOT
TRUANTING	YES, SOME	YES, A LOT	YES, SOME	YES, SOME	YES, SOME	YES, A LOT
EXCLUDED	NO	YES, A LOT	YES, SOME	YES, SOME	NO	YES, SOME
FAMILY AFFLUENCE	YES, A LOT	YES, SOME	YES, A LOT	YES, SOME	NO	YES, A LOT
EXPECTATIONS	NO	YES, A LOT	NO	YES, SOME	YES, SOME	YES, A LOT
NUMBER OF CLOSE FRIENDS	YES, A LOT	NO	NO	YES, A LOT	NO	YES, A LOT
AGES OF FRIENDS	YES, SOME	YES, A LOT	YES, A LOT	YES, A LOT	YES, SOME	YES, A LOT
EVENINGS SPENT WITH FRIENDS	YES, SOME	YES, SOME†	YES, SOME†	YES, A LOT	YES, SOME	YES, SOME
PARENTAL KNOWLEDGE	YES, SOME	YES, A LOT	YES, SOME	YES, SOME	YES, SOME	YES, A LOT
HANGING AROUND STREETS	YES, SOME	YES, A LOT	YES, SOME	NO	YES, SOME	YES, A LOT
DOING VOLUNTARY WORK	YES, SOME	NO	NO	YES, SOME	YES, A LOT	NO
USING SOCIAL NETWORKING SITES	YES, SOME	NO	YES, SOME	YES, SOME†	NO	YES, SOME

5.7 Feelings towards school and schoolwork were closely linked to mental health and wellbeing among girls. Feeling pressured by schoolwork, not liking school, frequent truanting, and exclusion from school all had a large impact on likelihood to have a borderline or abnormal overall SDQ score. All of these, with the exception of exclusion from school, also had a significant impact on all five components of the SDQ score separately. Being excluded from school was linked to the conduct, hyperactivity, peer components but not to the emotion or pro-social components of SDQ.

5.8 Of all factors included in the model, being pressured by schoolwork was the strongest predictor of being borderline or abnormal on the SDQ score overall, and significant for all the components individually. It is noteworthy that *not* being pressured by schoolwork among girls meant that they were *more* likely to score as borderline or abnormal on the pro-social scale. For the other four components, the relationship is in the other direction – pressure of schoolwork leads to a higher likelihood of borderline or abnormal scores.

5.9 After feelings towards school and school work were controlled for, expectations of post-school transitions were also related to mental health

¹¹ This table is based on the logistic regression models reported in Tables F1a and F1b in Appendix F. “Yes, a lot” indicates log odds of less than 0.6 or greater than 1.67. “Yes, some” indicates log odds between 0.6 and 1.67 but a significant effect.

† indicates that it may be a non-linear relationship or that the direction of the effect is not what might be assumed.

and wellbeing. Those that thought that they would do an apprenticeship, go into Further Education, or start working, were more likely than those who thought they would go to university to score as borderline or abnormal on the SDQ overall. Expectations of doing an apprenticeship was also linked to borderline or abnormal scores on conduct and peer problems.

- 5.10 Relationships with friends were also closely linked to mental health and wellbeing among girls. Having more close friends was strongly correlated to reduced emotional problems, peer problems and borderline or abnormal SDQ score overall. Number of friends, however, was not a driver of conduct, hyper-activity or the pro-social components of SDQ among girls.
- 5.11 Ages of friends were linked to all components of mental health and wellbeing. Those who reported that their friends were the same age as them or that their friends were of mixed ages were more likely to have good mental health and wellbeing scores across all five components. Those who said that their friends were older than them were more likely to score as borderline or abnormal.
- 5.12 The relationship between evenings spent with friends and the SDQ mental health and wellbeing components was more complex. Overall, spending evenings with friends was linked to positive mental health and wellbeing. It had a positive impact on the emotion, peer, and pro-social components of SDQ. However, in terms of conduct and hyper-activity, spending evenings with friends was correlated to poorer scores.
- 5.13 Among girls, perceptions of family affluence were related to SDQ scores, with lower affluence being associated with a higher likelihood of borderline or abnormal scores on SDQ overall. The impact of family affluence differs across the different components of SDQ. Scores for emotion and hyperactivity were closely associated with views on family affluence, and scores for conduct and peer problems were also correlated but to a lesser extent.
- 5.14 The relationship between affluence and mental health and wellbeing is not straightforward. While views on family affluence were a clear driver on mental health and wellbeing, once this factor is included in the modelling, entitlement to Free School Meals and area deprivation were not driving patterns of mental health and wellbeing among girls as much as other factors.
- 5.15 Similarly, the relationship between age and mental health and wellbeing is not straightforward. Poor mental health and wellbeing is more prevalent among S4 than S2 girls. However, age did not come out as a significant factor in the modelling of the overall SDQ score. This suggests that age *by itself* is not a key driver of mental health and wellbeing. Instead, it reflects the prevalence of other drivers changing as pupils get older. Most notably, S4 girls are more likely than S2 girls to feel pressurised by schoolwork and to not like school.

5.16 A number of leisure activities were included in the logistic regression model. Generally, these were less closely associated with mental health and wellbeing among girls than their views on school and schoolwork and their relationship with friends. Hanging around the streets was linked with higher borderline or abnormal SDQ scores overall, and also closely linked with scores on the conduct component. Using social networking sites was related to an increased likelihood of borderline or abnormal scores on emotion and hyperactivity, but a decreased likelihood of such scores on the peer problems scale. Doing voluntary work was related to an increased likelihood of borderline or abnormal scores on emotion and peer problems, but a decreased likelihood of pro-social borderline or abnormal scores. Full details of these are provided in the Appendix F.

Key drivers of mental health and wellbeing among boys

5.17 Although the increase in mental health and wellbeing issues among girls over time has been much more considerable than among boys, the factors that had the strongest impact on girls also had the largest impact on boys' mental health and wellbeing, with views on school and schoolwork and friendships having the strongest impact.

Figure 5.2 Summary of key drivers of borderline or abnormal mental health and wellbeing among boys in 2013

	SIGNIFICANT FACTOR?					
	EMOTION	CONDUCT	HYPER-ACTIVITY	PEER	PRO-SOCIAL	SDQ OVERALL
PRESSURED BY SCHOOLWORK	YES, A LOT	YES, A LOT	YES, A LOT	YES, A LOT	YES, SOME†	YES, A LOT
LIKE SCHOOL	YES, A LOT	YES, A LOT	YES, A LOT	YES, A LOT	YES, A LOT	YES, A LOT
TRUANTING	YES, SOME	YES, A LOT	YES, SOME	NO	YES, SOME	YES, A LOT
EXCLUDED	YES, SOME	YES, A LOT	YES, SOME	YES, SOME	YES, SOME	YES, A LOT
FAMILY AFFLUENCE	YES, SOME	NO	YES, SOME	YES, A LOT	YES, SOME†	YES, A LOT
EXPECTATIONS	NO	YES, SOME	YES, SOME	YES, SOME	YES, SOME	YES, SOME
NUMBER OF CLOSE FRIENDS	YES, A LOT	NO	NO	YES, A LOT	YES, SOME	YES, A LOT
AGES OF FRIENDS	YES, SOME	YES, A LOT	YES, A LOT	YES, A LOT	YES, SOME	YES, A LOT
EVENINGS SPENT WITH FRIENDS	NO	YES, SOME†	NO	YES, SOME	YES, SOME	YES, SOME
PARENTAL KNOWLEDGE	YES, SOME	YES, SOME	YES, SOME	YES, SOME	YES, SOME	YES, SOME
HANGING AROUND STREETS	YES, SOME	YES, SOME	YES, SOME	NO	NO	YES, SOME
DOING VOLUNTARY WORK	NO	YES, SOME	NO	YES, SOME	YES, A LOT	NO

5.18 Figure 5.2 highlights the factors that had the biggest impact on the different SDQ components of mental health and wellbeing among boys (detailed regression results can be found in Appendix F).

- 5.19 Feelings towards school and schoolwork were closely linked to mental health and wellbeing among boys. Like girls, feeling pressured by schoolwork, not liking school, frequent truanting, and exclusion from school all had a large impact on likelihood to be borderline or abnormal on the overall SDQ score. All of these, with the exception of truanting from school, also had a significant impact on all five components of the SDQ score separately. Truanting was linked to all components of SDQ with the exception of peer problems.
- 5.20 As with girls, of all factors included in the model, being pressured by schoolwork was the strongest predictor of being borderline or abnormal on the SDQ score overall among boys and significant for all the components individually. Again, like among girls, *not* being pressured by schoolwork among boys meant that they were *more* likely to score as borderline or abnormal on the pro-social scale. For the other four components, the relationship is in the other direction – pressure of schoolwork led to a higher likelihood of borderline or abnormal scores.
- 5.21 Among boys, expectations post-school were also related to mental health and wellbeing. Those that thought that they would do an apprenticeship, go into Further Education, or start working, were more likely than those who thought they would go to university to score as borderline or abnormal on the SDQ overall. Expectations of going into work or FE, compared to going to university were linked to borderline or abnormal scores on conduct, hyper-activity, peer problems, and the pro-social component. In contrast, expectations of undertaking an apprenticeship were related to increased borderline or abnormal scores on conduct and hyperactivity, but not in relation to peer problems or the pro-social component.
- 5.22 Among boys, relationships with friends were also closely linked to mental health and wellbeing. Having more close friends was strongly correlated to reduced emotional problems, peer problems and borderline or abnormal SDQ score overall. Number of friends, however, was not a driver of conduct, hyper-activity or the pro-social components of SDQ. This is the same as for girls.
- 5.23 Ages of friends were linked to all components of mental health and wellbeing. Those who reported that their friends were the same age as them were more likely to have good scores across all five components, and those who said that their friends were of mixed ages were more likely to have good scores across on emotion, conduct and peer problems. Those who said that their friends were older than them were more likely to score as borderline or abnormal. This is broadly the same pattern as girls.
- 5.24 Overall, as with girls, spending evenings with friends was linked to positive mental health and wellbeing among boys. It has a positive impact on the peer, and pro-social components of SDQ. However, in terms of conduct, spending evenings with friends was correlated to poorer scores.

- 5.25 Among boys, perceptions of family affluence were also related to SDQ scores, with lower affluence associated with a higher likelihood of borderline or abnormal scores on SDQ overall. Again, the impact of family affluence differs across the different components of SDQ. Scores for emotion, hyperactivity, and peer problems were correlated with views on family affluence. Among boys, scores for pro-social were inversely correlated to views on family affluence – those who say their family was well-off were more likely to score borderline or abnormal on the pro-social component.
- 5.26 Again, once views on family affluence were controlled for, entitlement to Free School Meals and area deprivation were not strong drivers of mental health and wellbeing among boys.
- 5.27 As with girls, leisure activities were included in the logistic regression model. While hanging around the streets was linked with higher borderline or abnormal SDQ score overall, doing voluntary work was not. Doing voluntary work was, however, related to conduct and peer problems and was linked to decreased likelihood of pro-social borderline or abnormal scores. This is the same pattern as was seen among girls.
- 5.28 However, unlike girls, using social networking sites was not linked to higher borderline or abnormal SDQ score overall among boys. Full details of these are provided in the logistic regression given in Appendix F.
- 5.29 Overall, the analysis suggests that while the prevalence of mental health and wellbeing problems has diverged between girls and boys in recent years, the main drivers have not. Pressure of schoolwork and the nature and number of friendships are central to mental health and wellbeing.

6 Conclusions

- In the last three years, there has been a marked change in mental health and wellbeing among pupils. While some aspects have improved (conduct problems, pro-social behaviour) or remained largely the same over time (hyperactivity, mental wellbeing), others have worsened (emotional problems and peer problems).
- One of the starkest changes is the extent to which mental health and wellbeing has changed among 15 year old girls, particularly in terms of their emotional wellbeing. In 2010, 28% of 15 year olds girls had a borderline or abnormal emotional problems score. This increased to 41% in 2013.
- Among those components of mental health and wellbeing that have deteriorated, the main change has been between 2010 and 2013, rather than a gradual effect over time.
- Different aspects of mental health and wellbeing affected girls and boys differently – girls were more likely to have problems with emotion or hyperactivity, whereas boys were more likely to have problems with conduct, peers or pro-social behaviour.
- When it comes to mental health and wellbeing, the two most closely aligned factors are pupils' relationships with friends and their experience of school. This was confirmed by the logistic regression analysis.
- The number and nature of a pupil's friendships had the strongest links to mental health and wellbeing – poorer mental health and wellbeing was associated with having fewer friends and having mostly older friends.
- Engagement with school was key to good mental health and wellbeing – those that disliked school, felt pressured by the amount of work they had, truanted on multiple occasions or had been excluded were all more likely to have borderline or abnormal SDQ scores and lower mental health and wellbeing.
- Physical wellbeing was linked to mental health and wellbeing – those who had a limiting illness or disability reported poorer mental health and wellbeing than those that did not – particularly in relation to emotional problems.
- A number of activities appeared to have a protective effect against poor mental health and wellbeing (although causal links are likely to be complex). Expecting to go to university, belonging to a group or club and seeing friends, doing a hobby, reading books or playing a sport at least weekly were associated with better mental health and wellbeing. For girls, in particular, playing sport on a weekly basis was strongly related to lower levels of emotional and behavioural problems.

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Appendix A – Trends in mental health and wellbeing – bases

Table A.1 – Bases for figure 2.2 – Trends in overall SDQ scores by sex and age (% borderline or abnormal)

Overall SDQ score	2006	2008	2010	2013
13 year olds boys	4801	2266	8485	7720
15 year old boys	4949	2145	8320	7569
13 year old girls	5079	2447	8741	7977
15 year old girls	5039	2260	8390	7680

Table A.2 – Bases for figure 2.4 – Trends in emotions SDQ scores by sex and age (% borderline or abnormal)

Emotion	2006	2008	2010	2013
13 year olds boys	4829	2274	8527	7747
15 year old boys	4966	2153	8336	7584
13 year old girls	5109	2454	8767	8007
15 year old girls	5053	2261	8401	7695

Table A.3 – Bases for figure 2.5 – Trends in conduct SDQ scores by sex and age (% borderline or abnormal)

Conduct	2006	2008	2010	2013
13 year olds boys	4837	2277	8547	7753
15 year old boys	4973	2155	8342	7597
13 year old girls	5114	2461	8781	8017
15 year old girls	5057	2261	8405	7702

Table A.4 – Bases for figure 2.6 – Trends in hyperactivity SDQ scores by sex and age (% borderline or abnormal)

Hyperactivity	2006	2008	2010	2013
13 year olds boys	4815	2269	8507	7733
15 year old boys	4959	2147	8333	7580
13 year old girls	5087	2451	8758	7996
15 year old girls	5044	2260	8395	7686

Table A.5 – Bases for figure 2.7 – Trends in peer problem scores SDQ scores by sex and age (% borderline or abnormal)

Peer problems	2006	2008	2010	2013
13 year olds boys	4816	2273	8508	7736
15 year old boys	4967	2150	8334	7586
13 year old girls	5101	2455	8767	7999
15 year old girls	5048	2260	8403	7697

Table A.6 – Bases for figure 2.8 – Trends in pro-social scores SDQ scores by sex and age (% borderline or abnormal)

Prosocial	2006	2008	2010	2013
13 year olds boys	4850	2289	8579	7791
15 year old boys	5000	2160	8353	7611
13 year old girls	5139	2468	8805	8039
15 year old girls	5072	2266	8415	7713

Table A.7 – Bases for figure 2.9 – WEMWBS average score in 2010 and 2013 by age and sex

	13 year old boys	13 year old girls	15 year old boys	15 year old girls
2010	8326	8184	8234	7981
2013	7494	7249	7482	7427

Appendix B – Trend data for individual SDQ scales

Figure B.1 – Trends in emotion SDQ scores between 2006 and 2013

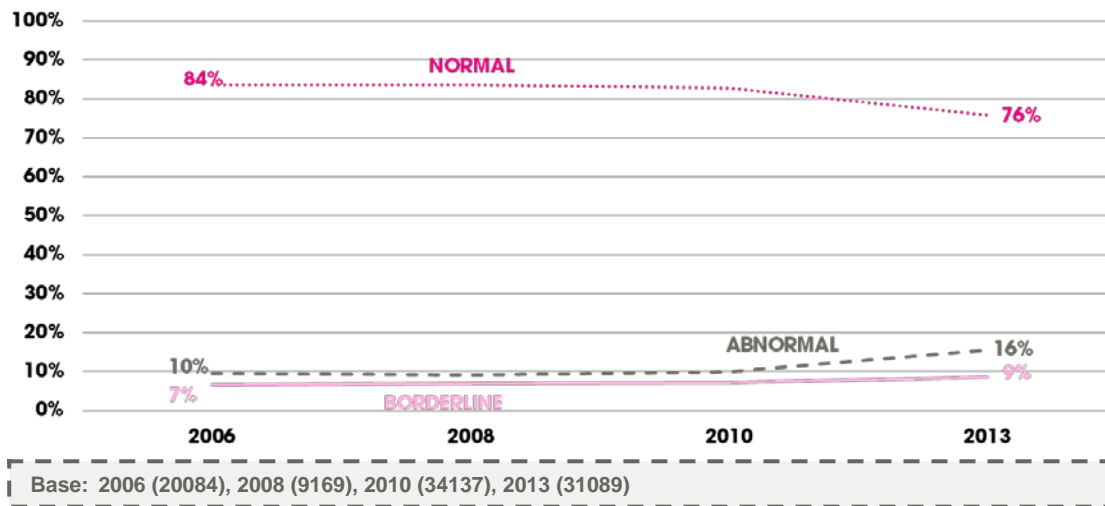


Figure B.2 – Trends in conduct SDQ scores between 2006 and 2013

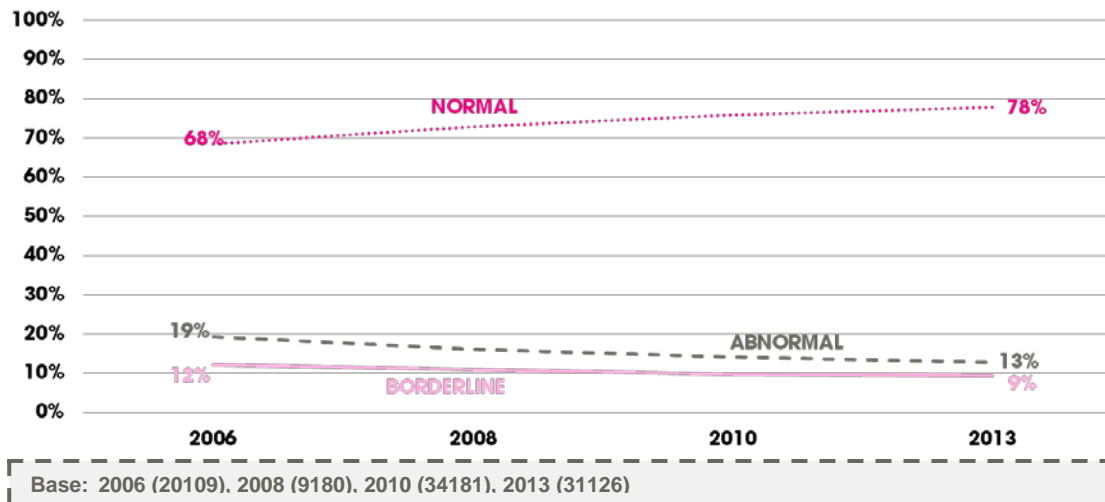


Figure B.3 – Trends in hyperactivity SDQ scores between 2006 and 2013

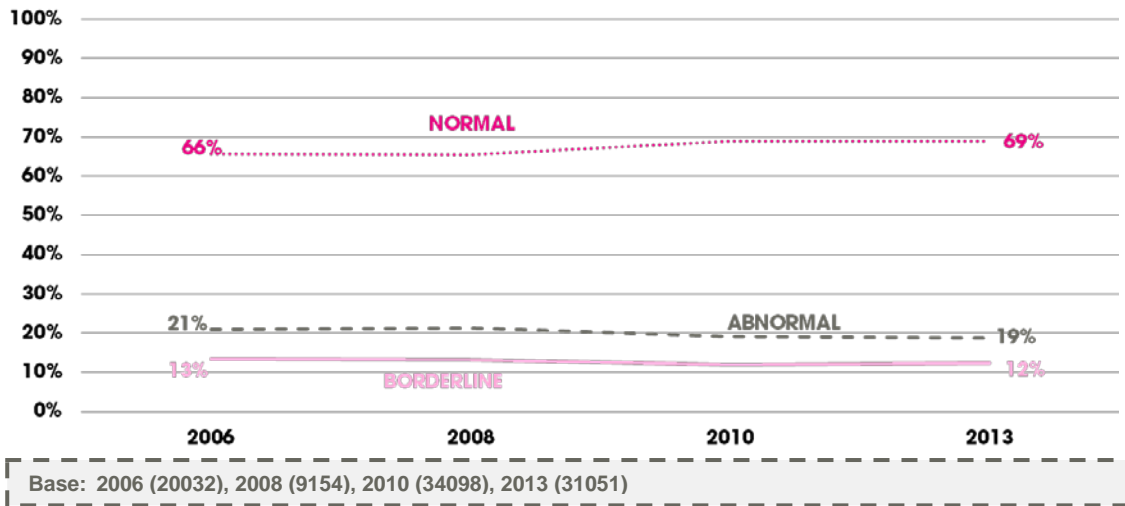


Figure B.4 – Trends in peer problems SDQ scores between 2006 and 2013

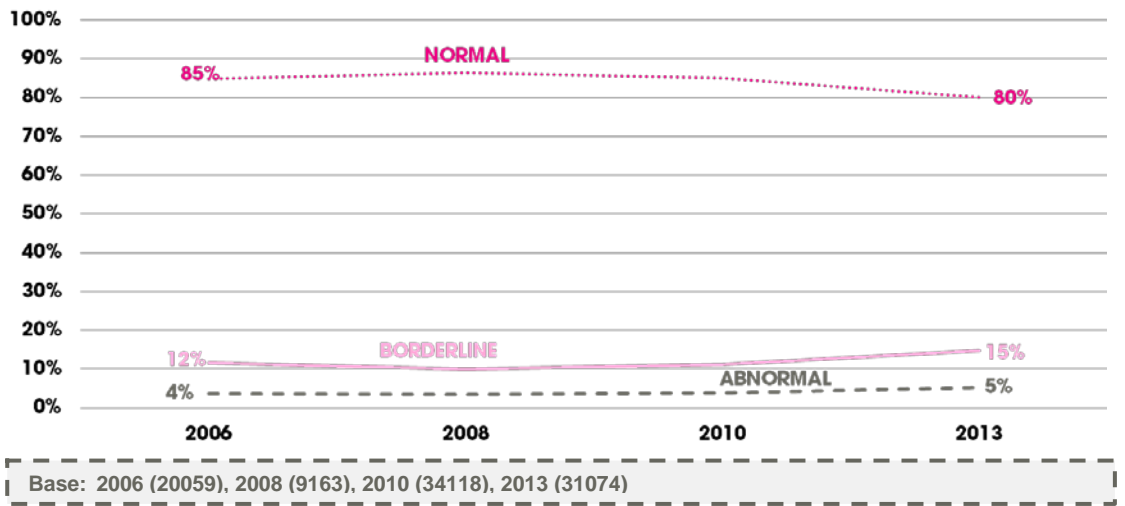
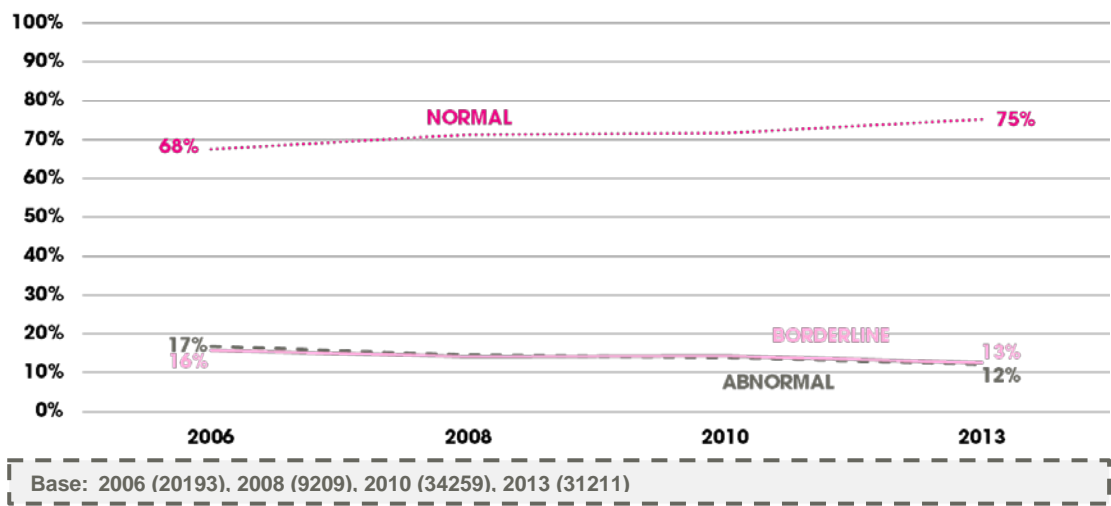


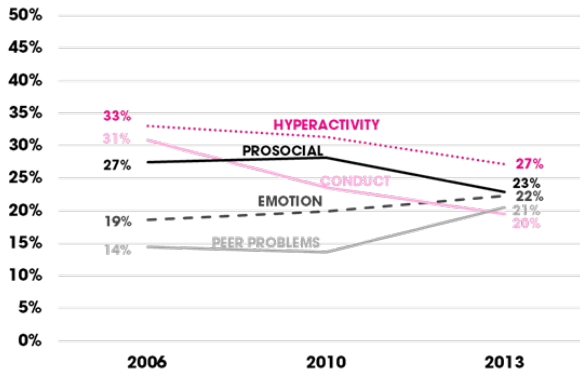
Figure B.5 – Trends in pro-social SDQ scores between 2006 and 2013



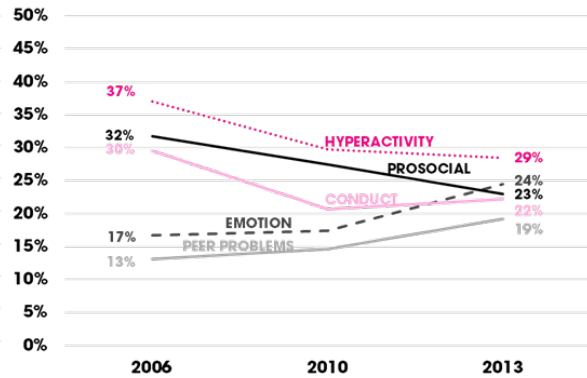
Appendix C – Local Authority trend data

Figure C.1 Individual SDQ scores by local authority between 2006 and 2013 (% borderline or abnormal score)

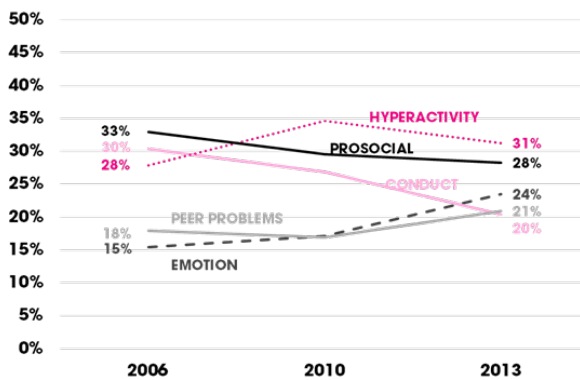
ABERDEEN



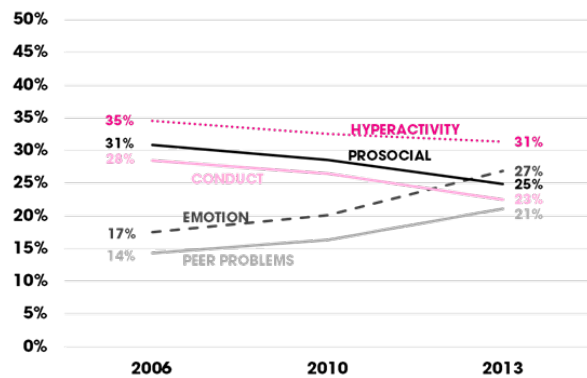
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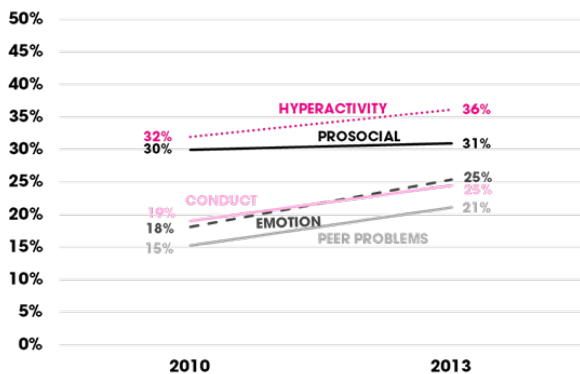
ANGUS



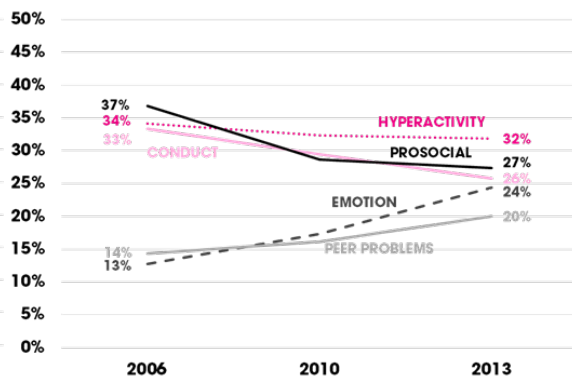
ARGYLL AND BUTE



CLACKMANNANSHIRE



DUMFRIES AND GALLOWAY



Note that no Clackmannanshire schools took part in SALSUS in 2006.

Table C.1 – Bases for individual SDQ scores by local authority between 2006 and 2013 (% borderline or abnormal score)

Aberdeen	2006	2010	2013
Overall SDQ score	1095	995	772
Emotion	1098	996	774
Conduct	1098	997	774
Hyperactivity	1097	997	773
Peer problems	1096	995	773
Pro-social	1099	996	776
Aberdeenshire	2006	2010	2013
Overall SDQ score	1046	2459	1352
Emotion	1051	2460	1357
Conduct	1053	2464	1356
Hyperactivity	1047	2462	1354
Peer problems	1050	2462	1355
Pro-social	1054	2464	1358
Angus	2006	2010	2013
Overall SDQ score	296	570	802
Emotion	297	572	804
Conduct	298	573	805
Hyperactivity	297	570	803
Peer problems	296	570	804
Pro-social	299	574	807
Argyll and Bute	2006	2010	2013
Overall SDQ score	720	524	427
Emotion	721	525	429
Conduct	721	526	432
Hyperactivity	720	525	427
Peer problems	721	526	429
Pro-social	724	526	435
Clackmannanshire	2006	2010	2013
Overall SDQ score	0	185	946
Emotion	0	185	948
Conduct	0	186	949
Hyperactivity	0	185	948
Peer problems	0	185	949
Pro-social	0	186	951
Dumfries and Galloway	2006	2010	2013
Overall SDQ score	500	879	687
Emotion	502	881	689
Conduct	502	883	689
Hyperactivity	500	881	690
Peer problems	501	880	688
Pro-social	500	885	691

Figure C.2 Individual SDQ scores by local authority between 2006 and 2013 (% borderline or abnormal score)

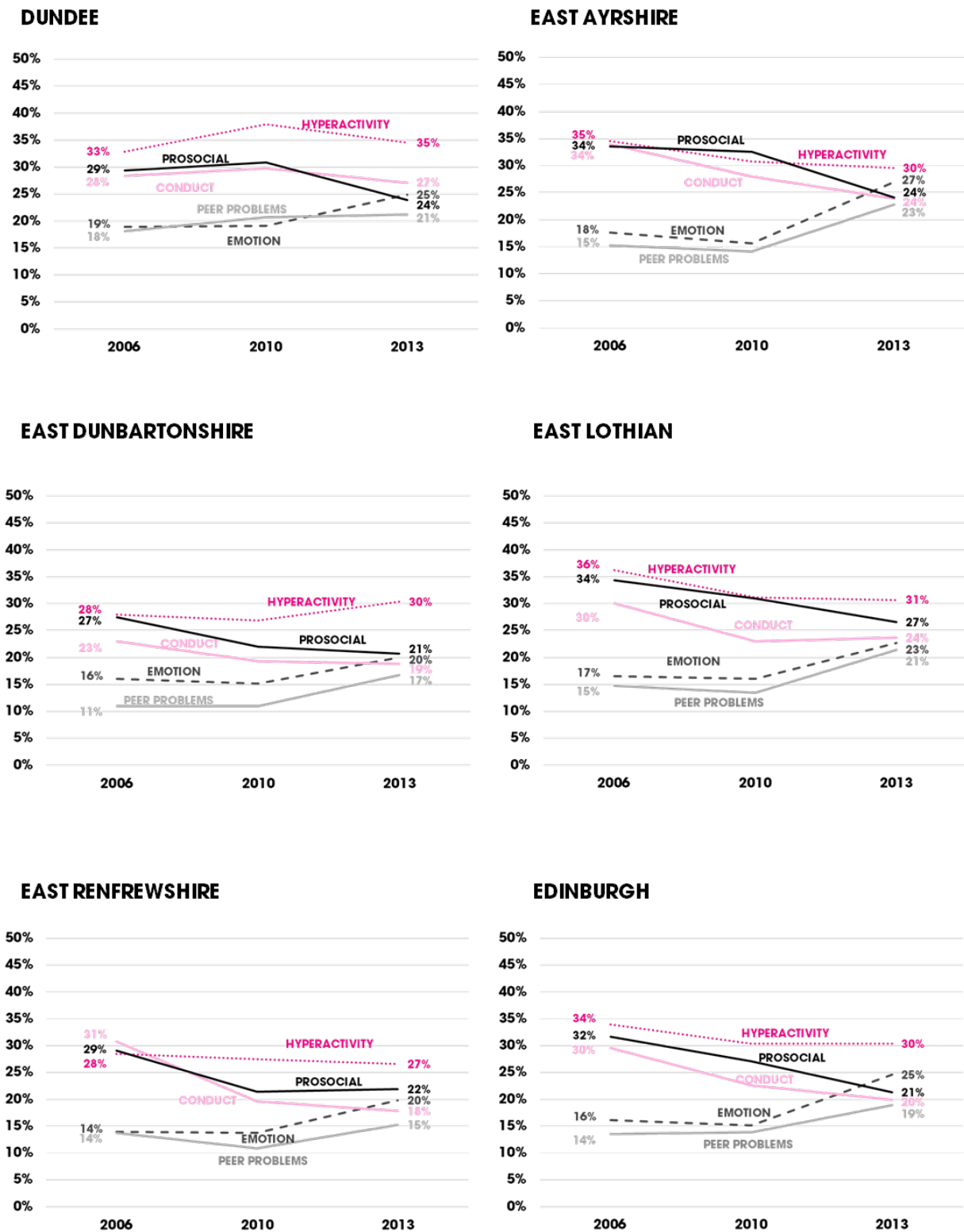
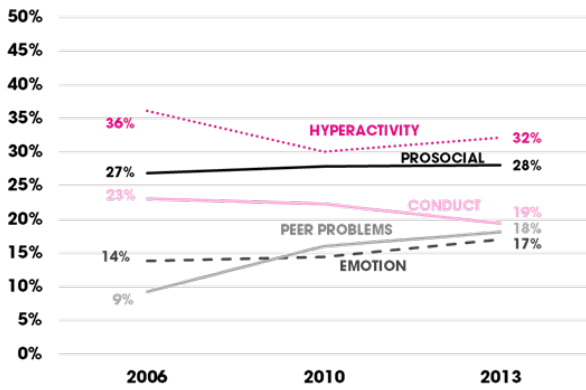


Table C.2 – Bases for individual SDQ scores by local authority between 2006 and 2013 (% borderline or abnormal score)

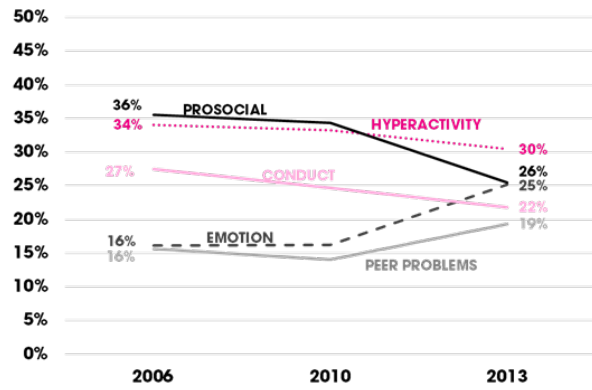
Dundee	2006	2010	2013
Overall SDQ score	445	902	822
Emotion	448	908	825
Conduct	450	910	826
Hyperactivity	446	909	823
Peer problems	447	909	825
Pro-social	449	917	830
East Ayrshire	2006	2010	2013
Overall SDQ score	546	652	969
Emotion	547	653	972
Conduct	548	652	972
Hyperactivity	546	653	970
Peer problems	547	652	970
Pro-social	552	654	978
East Dunbartonshire	2006	2010	2013
Overall SDQ score	244	1699	1056
Emotion	245	1704	1057
Conduct	245	1706	1059
Hyperactivity	245	1700	1057
Peer problems	245	1703	1058
Pro-social	246	1708	1061
East Lothian	2006	2010	2013
Overall SDQ score	868	587	647
Emotion	871	588	648
Conduct	870	590	648
Hyperactivity	868	587	648
Peer problems	869	588	647
Pro-social	874	590	648
East Renfrewshire	2006	2010	2013
Overall SDQ score	696	772	1490
Emotion	702	774	1494
Conduct	705	775	1498
Hyperactivity	698	772	1492
Peer problems	701	774	1492
Pro-social	709	776	1502
Edinburgh	2006	2010	2013
Overall SDQ score	1142	2679	1511
Emotion	1144	2684	1515
Conduct	1145	2685	1516
Hyperactivity	1143	2679	1513
Peer problems	1144	2683	1514
Pro-social	1145	2686	1517

Figure C.3 Individual SDQ scores by local authority between 2006 and 2013 (% borderline or abnormal score)

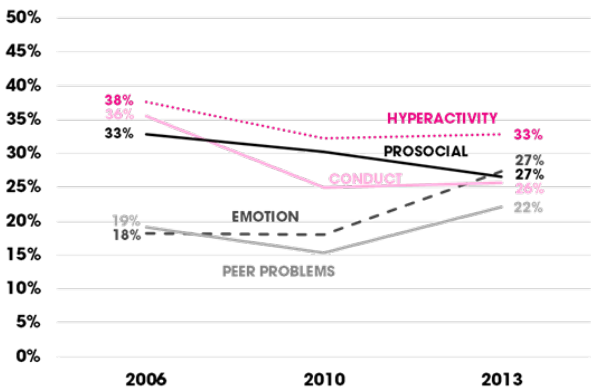
EILEAN SIAR



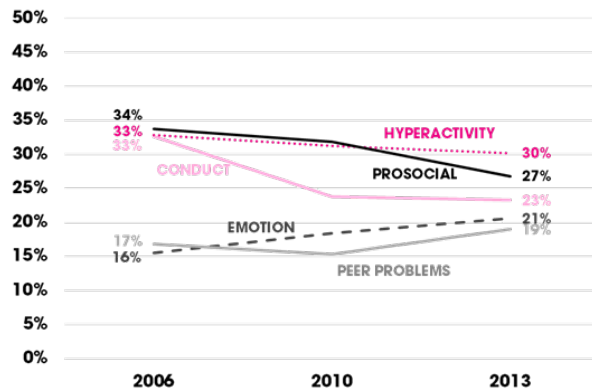
FALKIRK



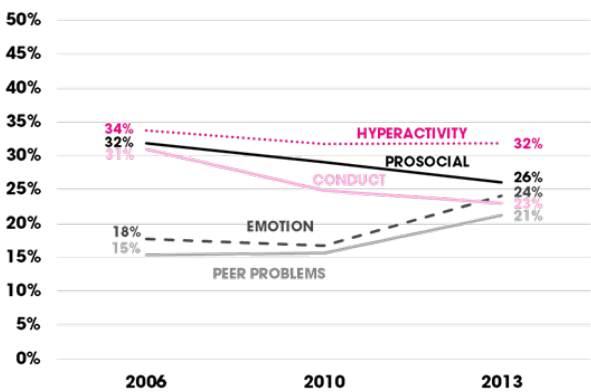
FIFE



GLASGOW CITY



HIGHLAND



MIDLOTHIAN

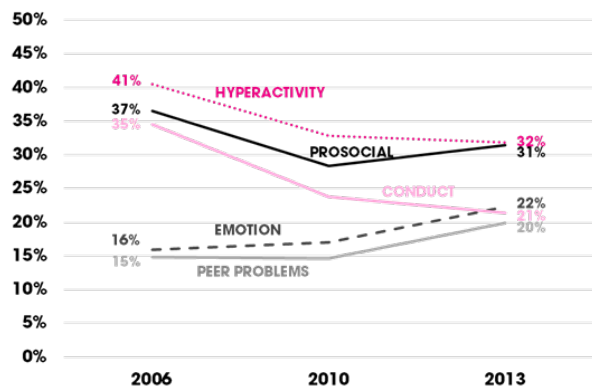


Table C.3 – Bases for individual SDQ scores by local authority between 2006 and 2013 (% borderline or abnormal score)

Eilean Siar	2006	2010	2013
Overall SDQ score	191	464	328
Emotion	191	465	328
Conduct	191	465	329
Hyperactivity	191	464	329
Peer problems	191	465	329
Pro-social	191	464	331
Falkirk	2006	2010	2013
Overall SDQ score	630	601	1236
Emotion	631	604	1237
Conduct	632	604	1238
Hyperactivity	631	602	1236
Peer problems	630	603	1237
Pro-social	634	606	1240
Fife	2006	2010	2013
Overall SDQ score	544	2014	1577
Emotion	546	2022	1580
Conduct	546	2022	1585
Hyperactivity	546	2014	1581
Peer problems	547	2019	1583
Pro-social	550	2029	1591
Glasgow	2006	2010	2013
Overall SDQ score	844	1808	3102
Emotion	853	1816	3118
Conduct	851	1823	3122
Hyperactivity	847	1818	3109
Peer problems	851	1817	3115
Pro-social	853	1825	3136
Highland	2006	2010	2013
Overall SDQ score	1220	1381	1235
Emotion	1224	1382	1237
Conduct	1226	1383	1238
Hyperactivity	1222	1382	1237
Peer problems	1224	1382	1238
Pro-social	1233	1382	1241
Midlothian	2006	2010	2013
Overall SDQ score	431	1108	592
Emotion	432	1109	593
Conduct	433	1110	593
Hyperactivity	432	1109	595
Peer problems	431	1109	593
Pro-social	434	1115	596

Figure C.4 Individual SDQ scores by local authority between 2006 and 2013 (% borderline or abnormal score)

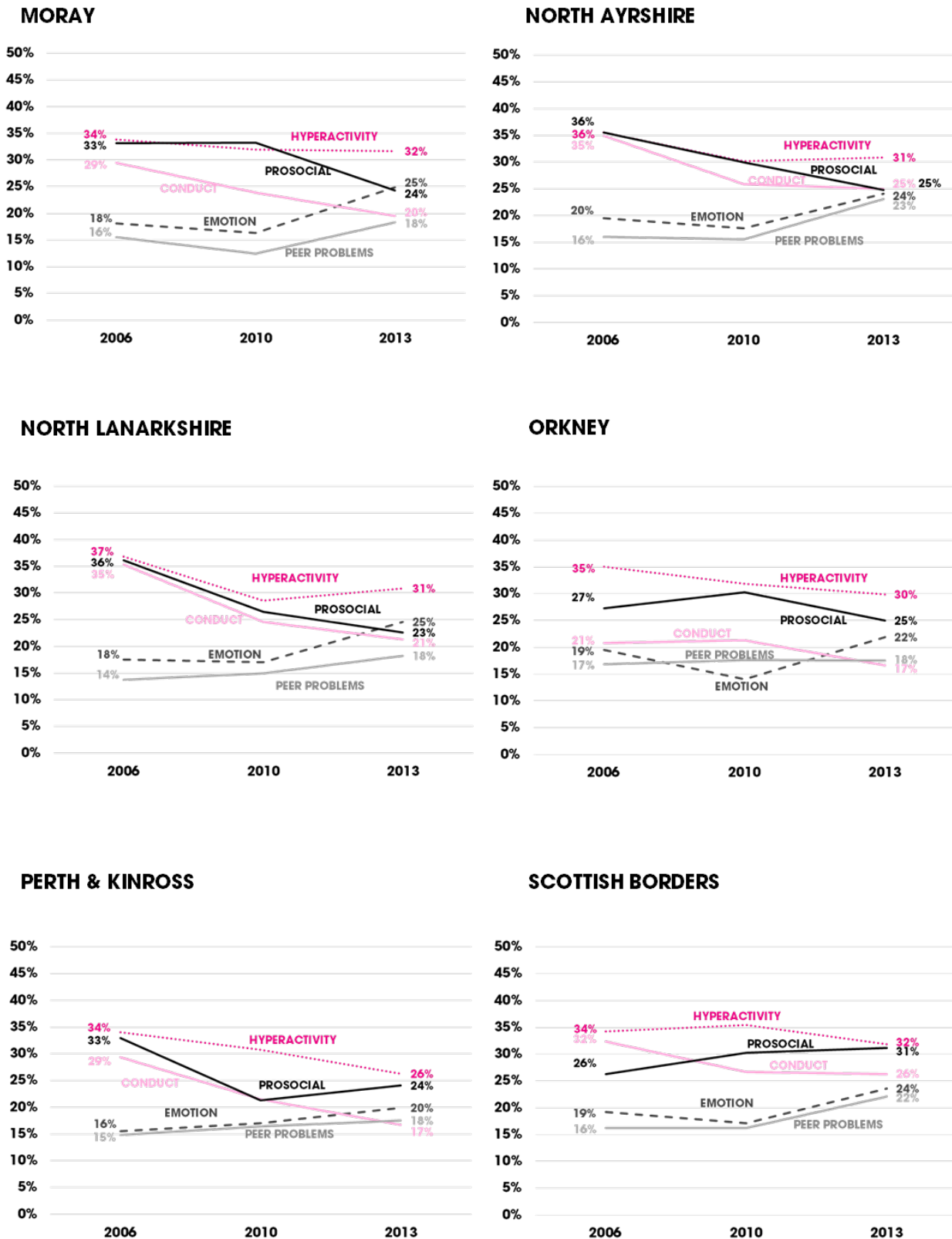
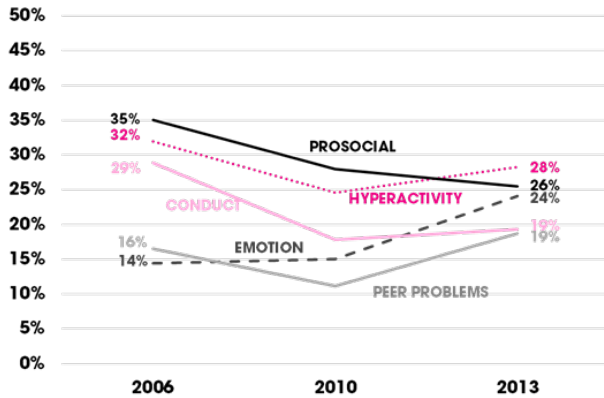


Table C.4 – Bases for individual SDQ scores by local authority between 2006 and 2013 (% borderline or abnormal score)

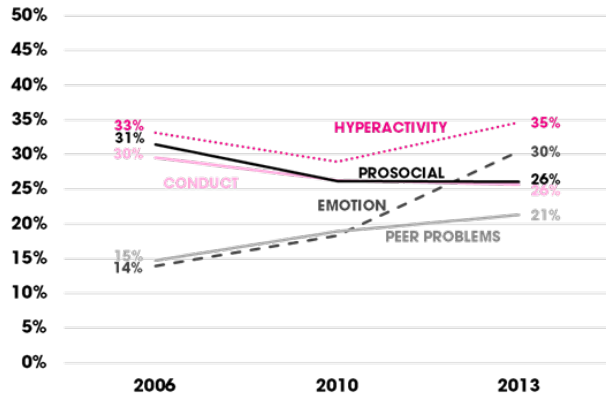
Moray	2006	2010	2013
Overall SDQ score	452	559	747
Emotion	454	560	748
Conduct	455	560	749
Hyperactivity	453	559	747
Peer problems	452	560	748
Pro-social	457	562	748
North Ayrshire	2006	2010	2013
Overall SDQ score	520	829	808
Emotion	524	829	810
Conduct	525	829	812
Hyperactivity	522	829	808
Peer problems	523	829	809
Pro-social	527	831	817
North Lanarkshire	2006	2010	2013
Overall SDQ score	744	2297	1814
Emotion	746	2308	1819
Conduct	748	2314	1821
Hyperactivity	746	2305	1817
Peer problems	746	2300	1821
Pro-social	753	2318	1824
Orkney	2006	2010	2013
Overall SDQ score	124	393	289
Emotion	124	393	290
Conduct	125	394	290
Hyperactivity	124	393	290
Peer problems	124	393	289
Pro-social	126	396	293
Perth & Kinross	2006	2010	2013
Overall SDQ score	865	659	546
Emotion	868	660	548
Conduct	871	659	548
Hyperactivity	867	660	549
Peer problems	869	660	547
Pro-social	877	660	549
Scottish Borders	2006	2010	2013
Overall SDQ score	493	683	1537
Emotion	498	685	1545
Conduct	499	687	1547
Hyperactivity	493	684	1540
Peer problems	494	684	1542
Pro-social	507	689	1552

Figure C.5 Individual SDQ scores by local authority between 2006 and 2013 (% borderline or abnormal score)

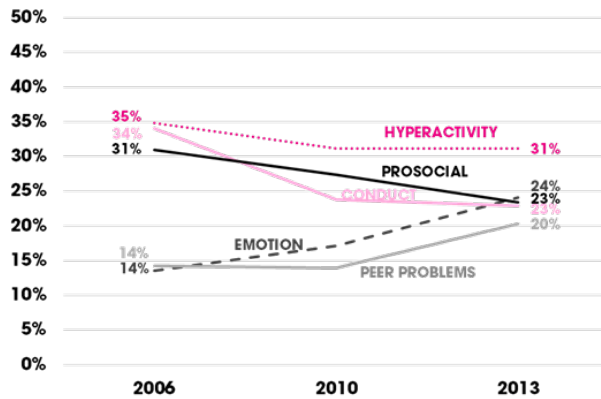
SHETLAND



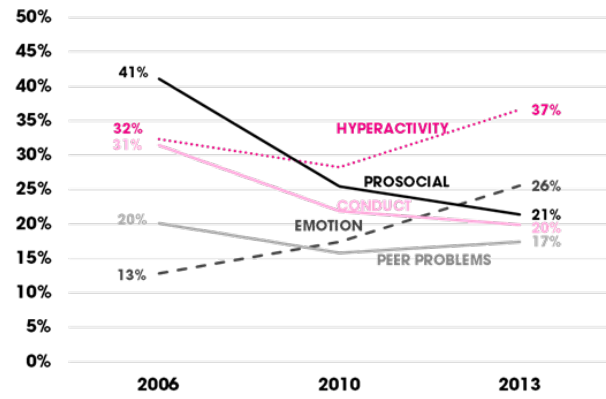
SOUTH AYRSHIRE



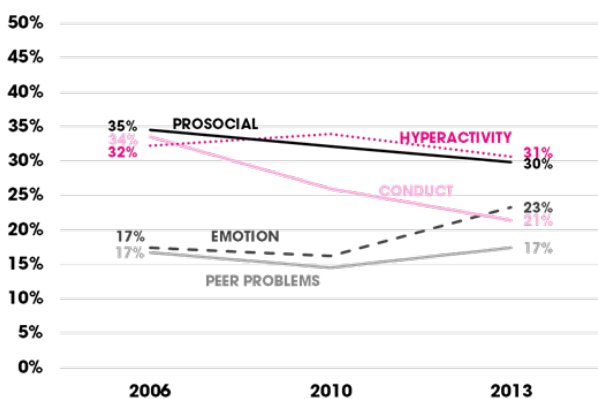
SOUTH LANARKSHIRE



STIRLING



WEST DUNBARTONSHIRE



WEST LoTHIAN

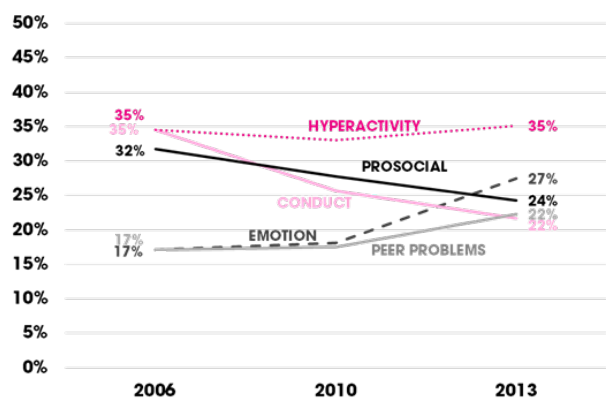


Table C.5 – Bases for individual SDQ scores by local authority between 2006 and 2013 (% borderline or abnormal score)

Shetland	2006	2010	2013
Overall SDQ score	346	340	411
Emotion	347	341	411
Conduct	347	340	411
Hyperactivity	346	341	411
Peer problems	347	341	411
Pro-social	634	606	1240
South Ayrshire	2006	2010	2013
Overall SDQ score	618	939	526
Emotion	622	945	528
Conduct	622	946	528
Hyperactivity	620	942	526
Peer problems	622	944	527
Pro-social	628	947	529
South Lanarkshire	2006	2010	2013
Overall SDQ score	1086	2435	2090
Emotion	1097	2445	2096
Conduct	1096	2447	2100
Hyperactivity	1091	2443	2092
Peer problems	1092	2443	2095
Pro-social	1101	2455	2103
Stirling	2006	2010	2013
Overall SDQ score	188	426	678
Emotion	188	426	679
Conduct	188	426	679
Hyperactivity	188	426	679
Peer problems	188	426	678
Pro-social	188	426	681
West Dunbartonshire	2006	2010	2013
Overall SDQ score	546	1521	657
Emotion	551	1529	658
Conduct	553	1531	658
Hyperactivity	547	1525	658
Peer problems	551	1529	657
Pro-social	557	1544	658
West Lothian	2006	2010	2013
Overall SDQ score	1232	934	877
Emotion	1235	936	880
Conduct	1236	939	881
Hyperactivity	1236	934	878
Peer problems	1234	937	879
Pro-social	1242	944	882

Table C.6 Overall SDQ score by local authority (% borderline or abnormal) (2013)

Local authority	%	Bases
Stirling	36%	678
South Ayrshire	35%	526
Inverclyde	34%	342
West Lothian	34%	877
Fife	33%	1577
North Ayrshire	33%	808
East Ayrshire	33%	969
Clackmannanshire	33%	946
Highland	32%	1235
Scottish Borders	31%	1537
Dumfries and Galloway	31%	687
Dundee City	31%	822
Falkirk	31%	1236
Argyll and Bute	30%	427
Midlothian	30%	592
Renfrewshire	30%	129
East Lothian	29%	647
South Lanarkshire	29%	2090
Moray	29%	747
West Dunbartonshire	28%	657
North Lanarkshire	28%	1814
Shetland	28%	411
Aberdeenshire	28%	1352
Angus	28%	802
Edinburgh City	27%	1511
Aberdeen City	27%	772
Orkney	27%	289
Glasgow City	27%	3102
East Dunbartonshire	26%	1056
Eilean Siar	24%	328
East Renfrewshire	24%	1490
Perth and Kinross	21%	546

Appendix D – Chapter 3 bases

Table D.1 – Bases for figure 3.8 Overall SDQ score by family status and sex (% borderline or abnormal score) (2013)

	Single parent	Step parent (and one parent)	Both parents	Other
Male	3440	1101	9654	685
Female	3498	1502	9802	578

Table D.2 – Bases for figure 3.10 Overall SDQ score by mother’s knowledge and sex (2013)

	Below median knowledge	Median knowledge or above
Male	6091	8591
Female	6718	8552

Table D.3 – Bases for figure 3.12 Overall SDQ score by age of friends and sex (% borderline or abnormal scores) (2013)

	Older than me	Younger than me	About the same age as me	Mixed ages
Male	628	298	10004	4119
Female	596	180	10237	4527

Table D.4 – Bases for figure 3.14 Overall SDQ score by number of friends and sex (2013)

	None	One or more
Male	282	13962
Female	596	180

Table D.5 – Bases for figure 3.16 Overall SDQ score by number evenings spent with friends and sex (% borderline or abnormal scores) (2013)

	0-1 evenings	2-3 evenings	4-5 evenings	6-7 evenings
Male	2816	5250	4519	2334
Female	1944	4120	2934	1271

Table D.6 – Bases for figure 3.18 Overall SDQ score by whether like school and sex (% borderline or abnormal score) (2013)

	I like it a lot	I like it a bit	I don't like it very much	I don't like it at all
Male	3012	8094	2614	1312
Female	2490	5751	1609	462

Table D.7 – Bases for figure 3.20 Overall SDQ score by school pressure and sex (% borderline or abnormal score) (2013)

	Never	Sometimes	A lot of the time
Male	2741	9158	3208
Female	1742	5996	2609

Table D.8 – Bases for figure 3.22 Overall SDQ score by number of times truanted and sex (% borderline or abnormal score) (2013)

	None	1-3 times	4-10 times	More than 10 times
Male	9967	3607	946	511
Female	7934	1873	387	131

Table D.9 – Bases for figure 3.24 Overall SDQ score by exclusion and sex (2013)

	No	Yes
Male	13384	1605
Female	9802	492

Table D.10 – Bases for figure 3.26 Overall SDQ score by Free School Meal (FSM) entitlement and sex (2013)

	Yes	No
Male	1660	12156
Female	1036	8545

Table D.11 – Bases for figure 3.22 Overall SDQ score by number of times truanted and sex (% borderline or abnormal score) (2013)

	University	FE college	Apprenticeship	Working	Other
Male	7557	2108	1207	1600	2683
Female	7276	1550	68	436	1027

Appendix E – Leisure activities figures

Table E.1 – Regular leisure activities and overall SDQ score (2013)

Boys		
	At least weekly	Less often
Playing sport	22%	32%
Seeing friends	24%	29%
Do nothing	41%	20%
Hanging out in the street	31%	21%
Going to a gig or concert	44%	23%
Girls		
	At least weekly	Less often
Playing sport	27%	43%
Reading books	29%	38%
Seeing friends	32%	41%
Doing a hobby	30%	39%
Do nothing	53%	28%
Hanging out in the street	47%	27%
Going to a gig or concert	47%	33%
Social networking	35%	23%

Table E.2 – Regular leisure activities and emotion (2013)

Boys		
	At least weekly	Less often
Playing sport	10%	17%
Seeing friends	11%	18%
Do nothing	20%	10%
Going to a gig or concert	20%	12%
Girls		
	At least weekly	Less often
Playing sport	29%	43%
Seeing friends	34%	41%
Do nothing	53%	30%
Listening to music	36%	23%
Social networking	36%	25%
Hanging out in the street	41%	32%

Table E.3 – Regular leisure activities and conduct (2013)

Boys		
	At least weekly	Less often
Reading books	21%	28%
Going to a gig or concert	50%	23%
Hanging out in the street	38%	18%
Do nothing	36%	22%
Social networking	27%	19%
Girls		
	At least weekly	Less often
Doing a hobby	15%	24%
Reading books	14%	23%
Playing sport	15%	23%
Hanging out in the street	32%	12%
Going to a gig or concert	33%	18%
Do nothing	28%	16%
Playing computer games	24%	16%

Table E.4 – Regular leisure activities and hyperactivity (2013)

Boys		
	At least weekly	Less often
Reading books	25%	33%
Going to church, temple or mosque	23%	31%
Do nothing	39%	27%
Hanging out in the street	37%	26%
Social networking	31%	25%
Girls		
	At least weekly	Less often
Doing a hobby	28%	38%
Going to church, temple or mosque	23%	33%
Playing sport	28%	37%
Reading books	26%	38%
Hanging out in the street	45%	26%
Do nothing	44%	29%
Social networking	34%	19%
Listening to music	33%	22%

Table E.5 – Regular leisure activities and peer problems (2013)

Boys		
	At least weekly	Less often
Seeing friends	17%	35%
Playing sport	17%	30%
Going to a friend's house	18%	26%
Social networking	19%	25%
Going to a gig or concert	41%	19%
Do nothing	33%	17%
Going to church, temple or mosque	29%	19%
Reading books	24%	18%
Girls		
	At least weekly	Less often
Seeing friends	16%	39%
Going to a friend's house	16%	29%
Playing sport	16%	23%
Social networking	18%	25%
Do nothing	31%	16%
Going to a gig or concert	30%	18%
Playing computer games	26%	16%

Table E.6 – Regular leisure activities and pro-social (2013)

Boys		
	At least weekly	Less often
Reading books	27%	39%
Doing a hobby	29%	41%
Seeing friends	33%	41%
Playing sports	32%	42%
Do nothing	46%	31%
Playing computer games	35%	29%
Going to a gig or concert	40%	34%
Girls		
	At least weekly	Less often
Playing sport	12%	20%
Doing a hobby	12%	20%
Going to church, temple or mosque	10%	16%
Reading books	12%	18%
Do nothing	26%	12%
Hanging out in the street	20%	13%
Going to a gig or concert	21%	15%

Table E.7 – Regular leisure activities and overall SDQ score (2013) - Bases

Boys		
	At least weekly	Less often
Playing sport	11,284	3,732
Seeing friends	12,582	2,469
Do nothing	2,925	11,559
Hanging out in the street	5,715	9,262
Going to a gig or concert	1,186	13,796
Girls		
	At least weekly	Less often
Playing sport	8,720	6,726
Reading books	7,576	7,913
Seeing friends	13,236	2,294
Doing a hobby	9,273	6,150
Do nothing	3,221	11,785
Hanging out in the street	5,157	10,267
Going to a gig or concert	1,227	14,224
Social networking	13,852	1,694

Table E.8 – Regular leisure activities and emotion (2013) - bases

Boys		
	At least weekly	Less often
Playing sport	11,311	3,743
Seeing friends	12,611	2,480
Do nothing	2,935	11,585
Going to a gig or concert	1,194	13,823
Girls		
	At least weekly	Less often
Playing sport	8,740	6,745
Seeing friends	13,271	2,303
Do nothing	3,230	11,816
Listening to music	14,911	674
Social networking	13,885	1,704
Hanging out in the street	5,170	10,295

Table E.9 – Regular leisure activities and conduct (2013) - bases

Boys		
	At least weekly	Less often
Reading books	5,733	9,292
Going to a gig or concert	1,194	13,841
Hanging out in the street	5,742	9,290
Do nothing	2,935	11,600
Social networking	12,284	2,855
Girls		
	At least weekly	Less often
Doing a hobby	9,303	6,177
Reading books	7,598	7,950
Playing sport	8,750	6,751
Hanging out in the street	5,182	10,298
Going to a gig or concert	1,232	14,275
Do nothing	3,233	11,826
Playing computer games	5,064	10,386

Table E.10 – Regular leisure activities and hyperactivity (2013) - bases

Boys		
	At least weekly	Less often
Reading books	5,727	9,261
Going to church, temple or mosque	2,051	12,921
Do nothing	2,929	11,573
Hanging out in the street	5,724	9,271
Social networking	12,255	2,849
Girls		
	At least weekly	Less often
Doing a hobby	9,282	6,160
Going to church, temple or mosque	1,989	13,482
Playing sport	8,734	6,732
Reading books	7,584	7,925
Hanging out in the street	5,164	10,280
Do nothing	3,226	11,797
Social networking	13,868	1,701
Listening to music	14,891	672

Table E.11 – Regular leisure activities and peer problems (2013) - bases

Boys		
	At least weekly	Less often
Seeing friends	12,607	2,474
Playing sport	11,303	3,742
Going to a friend's house	9,778	5,263
Social networking	12,262	2,849
Going to a gig or concert	1,192	13,817
Do nothing	2,933	11,577
Going to church, temple or mosque	2,052	12,930
Reading books	5,729	9,268
Girls		
	At least weekly	Less often
Seeing friends	13,266	2,301
Going to a friend's house	11,309	4,204
Playing sport	8,739	6,741
Social networking	13,878	1,705
Do nothing	3,233	11,807
Going to a gig or concert	1,231	14,254
Playing computer games	5,055	10,371

Table E.12 – Regular leisure activities and pro-social (2013) - bases

Boys		
	At least weekly	Less often
Reading books	5,745	9,325
Doing a hobby	8,297	6,763
Seeing friends	12,672	2,487
Playing sports	11,351	3,767
Do nothing	2,946	11,630
Playing computer games	13,231	1,920
Going to a gig or concert	1,200	13,880
Girls		
	At least weekly	Less often
Playing sport	8,766	6,763
Doing a hobby	9,319	6,190
Going to church, temple or mosque	1,996	13,537
Reading books	7,608	7,967
Do nothing	3,241	11,842
Hanging out in the street	5,193	10,315
Going to a gig or concert	1,237	14,298

Table E.13 Bases for figure 3.36 – Overall SDQ score by group membership in 2013

Activity	At least once a week	Less often
See a friend	12,953	2,238
Go to a friend's house	10,487	4,635
Hang out in the street	5,036	10,055
Go to a concert or gig	1,324	13,776

Appendix F – Regression

Interpreting Logistic Regression models

Table F1a shows the output for the logistic regression model for girls in 2013 in relation to borderline/abnormal versus normal score for three components of SDQ - emotion, conduct and hyperactivity components of SDQ. The first two columns indicate the different predictor factors included in the model. All variables have been treated as categorical variables.

Logistic regression models compare different categories against a reference category. In Table F1a, large urban area has been set as the reference category for the urban/rural classification, and the other categories are a series of comparisons with this category.

The columns headed 'Sig.', shows whether the factor is significant. A value of less than 0.05 in these columns suggests that this factor is significant. In Table F1a, the figure for 'other urban areas' (vs. large urban areas) for the emotion components is less than 0.05, it follows that - after controlling for the effect of all other factors in the model - the likelihood among people living in other urban areas of having an abnormal/borderline score for emotion is different from the likelihood among those in large urban areas. Significant factors are highlighted in yellow in the tables.

The column headed 'Beta' indicates the direction of the effect. A positive value indicates that those in the category are more likely to have an abnormal/borderline SDQ score and vice versa. For example, those in other urban areas were more likely than those in large urban areas to have an abnormal/borderline score for emotion.

The column headed "Exp(B)" gives the odds ratio. This indicates the size of the effect. The further above 1 that the odds ratio is, the greater the increase in likelihood of using at least one substance. The further below 1, the greater the decrease in the likelihood of using at least one substance. A value of 1 for the odds ratio means that a factor has no effect. (The odds ratio is the inverse natural log of the Beta value. For example, the 'other urban areas' compared to 'large urban areas' in the emotion component of Table F1a, the beta value is 0.25. The inverse of the natural log of 0.25 – $\text{Exp}(0.25)$ – is 1.28. This is the odds ratio.)

In the following tables, where a factor is significant, we have colour coded the odds ratios to give an indication of the size of the effect.

Figure F1: Key to colour coding of log odds

Large increase in likelihood: ($\text{Exp}(B) > 1.67$)	
Some increase in likelihood: ($1 < \text{Exp}(B) < 1.67$)	
Some decrease in likelihood: ($0.6 < \text{Exp}(B) < 1$)	
Large decrease in likelihood: ($\text{Exp}(B) < 0.6$)	

Note that for factors that are significant, it follows that ranges of likely values for the odds ratio (the values within the associated confidence intervals) will all be either above or all below 1. The 95% confidence intervals can be calculated by taking the inverse of the natural log of the Beta values plus/minus 1.96 * of the standard error. This calculation is shown below for the upper and lower confidence intervals of the odds ratios of 'other urban areas' compared to 'large urban areas' in the emotion component:

- Upper and lower CIs of odds ratio = inverse of natural log of Beta +/- 1.96 * se.
- Beta = 0.25 and se is 0.05.
- So inverse of the natural log of 0.25 +/- 1.96 * 0.05.
= inverse of natural log of 0.10 and of 0.35
= 1.16 and 1.42.

Table F1a: Logistic regression model of girls in 2013: borderline/abnormal versus normal score for the emotion, conduct and hyperactivity components of SDQ

		Emotion				Conduct				Hyperactivity			
		B	S.E.	Sig.	Exp(B)	B	S.E.	Sig.	Exp(B)	B	S.E.	Sig.	Exp(B)
Year group	(S4 compared with S2)	0.03	0.05	0.58	1.03	-0.26	0.06	0.00	0.77	0.11	0.05	0.02	1.12
SIMD quintiles	1 - Most deprived quintile			0.00				0.03				0.29	
	2	0.05	0.06	0.40	1.05	-0.03	0.07	0.68	0.97	-0.09	0.06	0.13	0.91
	3	0.02	0.06	0.74	1.02	-0.16	0.08	0.04	0.85	-0.07	0.06	0.28	0.93
	4	-0.17	0.06	0.01	0.85	-0.15	0.08	0.05	0.86	-0.14	0.06	0.03	0.87
	5 - Least deprived quintile	-0.08	0.06	0.23	0.93	-0.22	0.08	0.01	0.80	-0.07	0.06	0.26	0.93
Urban rural classification based on home postcode	Large urban areas			0.00				0.08				0.24	
	Other urban areas	0.25	0.05	0.00	1.28	0.09	0.06	0.13	1.09	0.00	0.05	0.96	1.00
	Small accessible towns	0.32	0.07	0.00	1.38	0.18	0.09	0.04	1.20	-0.10	0.07	0.14	0.90
	Small remote towns	0.01	0.10	0.92	1.01	0.14	0.12	0.24	1.15	-0.16	0.10	0.11	0.85
	Accessible rural	0.14	0.06	0.03	1.15	0.19	0.08	0.02	1.21	0.01	0.06	0.93	1.01
	Remote rural	0.10	0.09	0.25	1.11	-0.03	0.11	0.76	0.97	-0.13	0.09	0.14	0.88
Free School Meal Entitlement	Yes			0.43				0.06				0.12	
	No	-0.07	0.06	0.25	0.93	-0.05	0.07	0.47	0.95	-0.11	0.06	0.06	0.90
Actively taken part in youth groups	No			0.48				0.11				0.19	
	Yes	-0.05	0.05	0.27	0.95	-0.03	0.06	0.67	0.97	0.08	0.05	0.10	1.08
Actively taken part in a drama, arts, music or singing groups	No			0.32				0.01				0.16	
	Yes	0.05	0.05	0.32	1.05	-0.16	0.06	0.01	0.85	0.07	0.05	0.16	1.07
Actively taken part in a sports group , gym, exercise or dance	No			0.04				0.00				0.05	
	Yes	-0.12	0.06	0.04	0.89	-0.25	0.07	0.00	0.78	0.11	0.06	0.05	1.12
Actively taken part in a computer group	No			0.57				0.01				0.86	
	Yes	0.08	0.14	0.57	1.08	0.41	0.16	0.01	1.51	-0.02	0.14	0.86	0.98
Actively taken part in none of these	No			0.15				0.11				0.27	
	Yes	-0.10	0.07	0.15	0.90	-0.14	0.09	0.11	0.87	0.08	0.07	0.27	1.08
Frequency of seeing your friends	At least weekly			0.03				0.03				0.70	
	Less than weekly	0.18	0.07	0.01	1.20	0.23	0.09	0.01	1.26	0.05	0.07	0.52	1.05

		Emotion				Conduct				Hyperactivity			
Frequency of listening to music	At least weekly			0.00				0.06				0.09	
	Less than weekly	-0.46	0.11	0.00	0.63	0.18	0.13	0.18	1.19	-0.23	0.11	0.04	0.79
Frequency of watching sports matches	At least weekly			0.79				0.00				0.15	
	Less than weekly	0.04	0.06	0.50	1.04	-0.35	0.07	0.00	0.70	-0.11	0.06	0.05	0.90
Frequency of going to the cinema	At least weekly			0.77				0.00				0.31	
	Less than weekly	-0.03	0.05	0.47	0.97	-0.16	0.06	0.01	0.86	-0.07	0.05	0.14	0.93
Frequency of hanging around the street	At least weekly			0.00				0.00				0.00	
	Less than weekly	-0.22	0.05	0.00	0.80	-0.57	0.05	0.00	0.56	-0.44	0.05	0.00	0.65
Frequency of doing a hobby	At least weekly			0.68				0.01				0.60	
	Less than weekly	-0.04	0.04	0.40	0.96	0.17	0.05	0.00	1.19	0.03	0.04	0.53	1.03
Frequency of going to a friend's house	At least weekly			0.68				0.86				0.01	
	Less than weekly	-0.03	0.06	0.65	0.98	0.04	0.07	0.59	1.04	-0.15	0.06	0.01	0.86
Frequency of going to concerts or gigs	At least weekly			0.61				0.56				0.75	
	Less than weekly	0.00	0.08	0.98	1.00	-0.08	0.09	0.34	0.92	-0.03	0.08	0.65	0.97
Frequency of going to church	At least weekly			0.25				0.84				0.00	
	Less than weekly	0.03	0.06	0.59	1.03	0.03	0.08	0.76	1.03	0.24	0.07	0.00	1.27
Frequency of watching films/ DVDs	At least weekly			0.86				0.01				0.35	
	Less than weekly	0.00	0.05	0.94	1.00	-0.18	0.06	0.01	0.84	-0.02	0.05	0.62	0.98
Frequency of playing computer games	At least weekly			0.27				0.00				0.01	
	Less than weekly	-0.06	0.04	0.16	0.94	-0.19	0.05	0.00	0.83	-0.13	0.04	0.00	0.88
Frequency of doing sports	At least weekly			0.00				0.04				0.50	
	Less than weekly	0.21	0.05	0.00	1.23	0.08	0.06	0.15	1.09	-0.01	0.05	0.78	0.99
Frequency of doing voluntary work	At least weekly			0.00				0.81				0.27	
	Less than weekly	-0.16	0.05	0.00	0.85	0.02	0.07	0.73	1.02	0.08	0.05	0.11	1.09
Frequency of using social networking sites	At least weekly			0.00				0.21				0.00	
	Less than weekly	-0.24	0.07	0.00	0.79	-0.15	0.10	0.12	0.86	-0.25	0.07	0.00	0.78
Frequency of using a public library	At least weekly			0.29				0.03				0.50	
	Less than weekly	0.10	0.08	0.20	1.11	-0.26	0.10	0.01	0.77	0.09	0.08	0.26	1.10
Frequency of going to a museum	At least weekly			0.91				0.10				0.02	
	Less than weekly	0.00	0.12	1.00	1.00	-0.14	0.14	0.31	0.87	0.37	0.13	0.00	1.44

		Emotion				Conduct				Hyperactivity			
Frequency of going to the theatre	At least weekly			0.99				0.01				0.40	
	Less than weekly	0.01	0.10	0.92	1.01	-0.36	0.11	0.00	0.70	-0.13	0.10	0.18	0.88
Family status	Single parent			0.01				0.28				0.00	
	Step parent (and one parent)	0.25	0.07	0.00	1.29	0.11	0.08	0.16	1.12	0.10	0.07	0.13	1.11
	Both parents	0.10	0.05	0.06	1.10	0.06	0.06	0.32	1.06	-0.08	0.05	0.10	0.92
	Other	0.14	0.11	0.17	1.16	0.24	0.12	0.04	1.27	0.16	0.11	0.13	1.17
Paternal knowledge of activities - banded	Below median			0.00				0.00				0.00	
	Median	-0.16	0.06	0.01	0.85	-0.34	0.08	0.00	0.71	-0.23	0.06	0.00	0.80
	Above median	-0.34	0.05	0.00	0.71	-0.48	0.07	0.00	0.62	-0.29	0.05	0.00	0.74
Maternal knowledge of activities - banded	Below median			0.00				0.00				0.00	
	Median	-0.16	0.05	0.00	0.86	-0.51	0.06	0.00	0.60	-0.18	0.05	0.00	0.83
	Above median	-0.28	0.06	0.00	0.76	-0.72	0.08	0.00	0.49	-0.43	0.06	0.00	0.65
How well off would you say your family is? - in survey from 2006	Very well off			0.00				0.05				0.00	
	Quite well off	0.09	0.06	0.17	1.09	0.08	0.08	0.33	1.08	0.22	0.07	0.00	1.25
	Average	0.23	0.06	0.00	1.26	0.07	0.08	0.39	1.07	0.30	0.07	0.00	1.35
	Not well off	0.56	0.10	0.00	1.76	0.32	0.12	0.01	1.37	0.51	0.10	0.00	1.67
	Not at all well off	0.33	0.17	0.05	1.40	0.36	0.18	0.05	1.43	0.30	0.17	0.07	1.35
Number of close friends	None			0.00				0.00				0.02	
	One	-0.35	0.20	0.08	0.71	-0.04	0.22	0.87	0.96	0.28	0.20	0.15	1.33
	Two or more	-0.69	0.18	0.00	0.50	-0.35	0.19	0.06	0.70	0.26	0.18	0.14	1.30
Are your friends older, younger, or about the same age as you? - in survey from 2006	Older than me			0.00				0.00				0.00	
	Younger than me	0.06	0.19	0.73	1.07	-0.47	0.22	0.03	0.62	-0.60	0.19	0.00	0.55
	About the same age as me	-0.39	0.09	0.00	0.68	-0.61	0.10	0.00	0.54	-0.41	0.09	0.00	0.67
	Mixed ages	-0.28	0.10	0.00	0.76	-0.30	0.11	0.00	0.74	-0.19	0.10	0.05	0.83
	Don't know	-0.66	0.37	0.07	0.52	-0.90	0.41	0.03	0.41	-0.01	0.35	0.97	0.99
How many evenings spent with friends	0-1 evenings			0.01				0.00				0.00	
	2-3 evenings	-0.22	0.06	0.00	0.80	-0.08	0.08	0.35	0.93	-0.16	0.06	0.01	0.85
	4-5 evenings	-0.21	0.07	0.00	0.81	0.04	0.09	0.66	1.04	0.13	0.07	0.05	1.14
	6-7 evenings	-0.20	0.08	0.01	0.82	0.22	0.10	0.02	1.25	0.17	0.08	0.03	1.18

		Emotion				Conduct				Hyperactivity			
How much do you like school at the moment?	I like it a lot			0.00				0.00				0.00	
	I like it a bit	0.26	0.06	0.00	1.29	0.26	0.08	0.00	1.29	0.33	0.06	0.00	1.39
	I don't like it very much	0.79	0.07	0.00	2.21	0.62	0.09	0.00	1.86	0.68	0.07	0.00	1.97
	I don't like it at all	1.03	0.08	0.00	2.81	0.94	0.10	0.00	2.57	1.11	0.08	0.00	3.03
How often feel strained or pressured by the schoolwork	Never			0.00				0.00				0.00	
	Sometimes	0.66	0.07	0.00	1.94	0.30	0.08	0.00	1.35	0.36	0.07	0.00	1.44
	A lot of the time	1.66	0.08	0.00	5.26	0.70	0.09	0.00	2.02	0.91	0.07	0.00	2.50
Truantiing	None			0.00				0.00				0.00	
	1-3 times	0.10	0.05	0.03	1.11	0.59	0.05	0.00	1.80	0.26	0.05	0.00	1.29
	4-10 times	0.25	0.08	0.00	1.28	0.97	0.08	0.00	2.65	0.46	0.07	0.00	1.59
	More than 10 times	0.46	0.11	0.00	1.58	1.15	0.11	0.00	3.15	0.48	0.10	0.00	1.61
Ever excluded	No			0.50				0.00				0.62	
	Yes	0.09	0.07	0.24	1.09	0.52	0.08	0.00	1.69	0.07	0.07	0.33	1.07
Post-school expectations	University			0.97				0.00				0.00	
	FE	0.04	0.05	0.41	1.04	0.08	0.06	0.19	1.08	0.22	0.05	0.00	1.25
	Apprenticeship	0.04	0.19	0.85	1.04	0.79	0.20	0.00	2.21	0.19	0.19	0.30	1.21
	Working	0.03	0.09	0.70	1.03	0.38	0.09	0.00	1.46	0.23	0.08	0.01	1.26
	Other	0.02	0.06	0.77	1.02	0.20	0.07	0.00	1.23	0.39	0.06	0.00	1.48
Constant		-0.28	0.26	0.30	0.76	0.38	0.30	0.20	1.47	-1.73	0.27	0.00	0.18

Table F1b: Logistic regression model of girls in 2013: borderline/abnormal versus normal scores for the peer and pro-social components of SDQ and SDQ overall.

		Peer				Pro-social				SDQ overall			
		B	S.E.	Sig.	Exp(B)	B	S.E.	Sig.	Exp(B)	B	S.E.	Sig.	Exp(B)
Year group	(S4 compared with S2)	0.07	0.06	0.19	1.08	0.29	0.06	0.00	1.33	0.00	0.05	0.94	1.00
SIMD quintiles	1 - Most deprived quintile			0.20				0.63				0.00	
	2	-0.06	0.07	0.46	0.95	-0.07	0.08	0.35	0.93	-0.06	0.07	0.37	0.94
	3	-0.06	0.08	0.44	0.94	-0.09	0.08	0.23	0.91	-0.09	0.07	0.20	0.92
	4	-0.15	0.08	0.05	0.86	-0.05	0.08	0.48	0.95	-0.21	0.07	0.00	0.81
	5 - Least deprived quintile	-0.15	0.08	0.05	0.86	-0.12	0.08	0.14	0.89	-0.22	0.07	0.00	0.80
Urban rural classification based on home postcode	Large urban areas			0.00				0.24				0.00	
	Other urban areas	0.20	0.06	0.00	1.22	0.14	0.06	0.02	1.15	0.23	0.05	0.00	1.26
	Small accessible towns	0.08	0.09	0.38	1.08	0.07	0.09	0.44	1.07	0.14	0.08	0.07	1.15
	Small remote towns	-0.02	0.12	0.87	0.98	0.02	0.13	0.88	1.02	0.06	0.11	0.56	1.07
	Accessible rural	0.13	0.08	0.09	1.14	0.03	0.08	0.70	1.03	0.21	0.07	0.00	1.24
	Remote rural	-0.07	0.10	0.48	0.93	0.12	0.11	0.26	1.13	0.10	0.09	0.29	1.10
Free School Meal Entitlement	Yes			0.01				0.01				0.00	
	No	-0.19	0.07	0.01	0.83	0.23	0.07	0.00	1.25	-0.16	0.06	0.01	0.85
Actively taken part in youth groups	No			0.01				0.00				0.96	
	Yes	0.15	0.06	0.01	1.16	-0.25	0.07	0.00	0.78	0.01	0.05	0.90	1.01
Actively taken part in a drama, arts, music or singing groups	No			0.15				0.00				0.55	
	Yes	0.08	0.06	0.15	1.09	-0.21	0.07	0.00	0.81	0.03	0.05	0.55	1.03
Actively taken part in a sports group , gym, exercise or dance	No			0.00				0.18				0.09	
	Yes	-0.35	0.07	0.00	0.71	-0.11	0.08	0.18	0.90	-0.10	0.06	0.09	0.90
Actively taken part in a computer group	No			0.16				0.98				0.01	
	Yes	0.21	0.15	0.16	1.23	-0.01	0.19	0.98	0.99	0.36	0.15	0.01	1.44
Actively taken part in none of these	No			0.48				0.12				0.28	
	Yes	-0.06	0.08	0.48	0.94	0.14	0.09	0.12	1.15	-0.08	0.08	0.28	0.92
Frequency of seeing your friends	At least weekly			0.00				0.12				0.00	
	Less than weekly	0.52	0.07	0.00	1.69	0.17	0.08	0.04	1.18	0.46	0.07	0.00	1.59

		Peer				Pro-social				SDQ overall			
Frequency of listening to music	At least weekly			0.09				0.05				0.01	
	Less than weekly	0.00	0.11	0.99	1.00	0.17	0.12	0.17	1.18	-0.37	0.12	0.00	0.69
Frequency of watching sports matches	At least weekly			0.01				0.02				0.27	
	Less than weekly	-0.19	0.07	0.01	0.83	-0.18	0.07	0.01	0.84	-0.09	0.06	0.12	0.91
Frequency of going to the cinema	At least weekly			0.88				0.31				0.06	
	Less than weekly	-0.03	0.06	0.64	0.97	-0.09	0.06	0.13	0.91	-0.11	0.05	0.03	0.90
Frequency of hanging around the street	At least weekly			0.37				0.00				0.00	
	Less than weekly	-0.08	0.06	0.17	0.92	-0.23	0.06	0.00	0.79	-0.55	0.05	0.00	0.58
Frequency of doing a hobby	At least weekly			0.00				0.11				0.77	
	Less than weekly	-0.18	0.05	0.00	0.84	0.09	0.05	0.09	1.09	0.00	0.05	0.93	1.00
Frequency of going to a friend's house	At least weekly			0.00				0.10				0.80	
	Less than weekly	0.32	0.06	0.00	1.38	0.15	0.07	0.03	1.16	-0.03	0.06	0.62	0.97
Frequency of going to concerts or gigs	At least weekly			0.02				0.04				0.40	
	Less than weekly	-0.24	0.09	0.01	0.79	-0.23	0.09	0.01	0.80	-0.11	0.08	0.18	0.90
Frequency of going to church	At least weekly			0.52				0.00				0.06	
	Less than weekly	0.08	0.07	0.26	1.09	0.35	0.09	0.00	1.41	0.16	0.07	0.02	1.17
Frequency of watching films/ DVDs	At least weekly			0.22				0.81				0.09	
	Less than weekly	0.02	0.06	0.73	1.02	0.02	0.06	0.80	1.02	-0.04	0.05	0.45	0.96
Frequency of playing computer games	At least weekly			0.00				0.00				0.00	
	Less than weekly	-0.35	0.05	0.00	0.71	-0.26	0.05	0.00	0.77	-0.23	0.05	0.00	0.80
Frequency of doing sports	At least weekly			0.21				0.35				0.00	
	Less than weekly	-0.05	0.06	0.39	0.95	0.06	0.06	0.29	1.06	0.21	0.05	0.00	1.24
Frequency of doing voluntary work	At least weekly			0.00				0.00				0.03	
	Less than weekly	-0.24	0.06	0.00	0.79	0.71	0.08	0.00	2.04	-0.15	0.06	0.01	0.86
Frequency of using social networking sites	At least weekly			0.01				0.50				0.02	
	Less than weekly	0.24	0.07	0.00	1.27	0.07	0.09	0.40	1.08	-0.18	0.08	0.02	0.83
Frequency of using a public library	At least weekly			0.01				0.06				1.00	
	Less than weekly	-0.28	0.09	0.00	0.76	-0.25	0.11	0.02	0.78	0.00	0.09	0.98	1.00
Frequency of going to a museum	At least weekly			0.00				0.02				0.45	
	Less than weekly	-0.52	0.13	0.00	0.59	-0.40	0.15	0.01	0.67	-0.04	0.13	0.78	0.96

		Peer					Pro-social				SDQ overall			
Frequency of going to the theatre	At least weekly			0.16					0.93				0.18	
	Less than weekly	-0.20	0.11	0.06	0.82	-0.02	0.13	0.85	0.98	-0.15	0.10	0.15	0.86	
Family status	Single parent			0.18				0.01				0.00		
	Step parent (and one parent)	0.12	0.08	0.16	1.12	-0.05	0.09	0.54	0.95	0.13	0.07	0.07	1.14	
	Both parents	0.01	0.06	0.93	1.01	0.15	0.06	0.02	1.16	-0.01	0.05	0.88	0.99	
	Other	0.06	0.12	0.63	1.06	0.32	0.12	0.01	1.38	0.37	0.11	0.00	1.45	
Paternal knowledge of activities - banded	Below median			0.00				0.00				0.00		
	Median	-0.10	0.08	0.19	0.90	-0.28	0.08	0.00	0.76	-0.23	0.07	0.00	0.80	
	Above median	-0.23	0.06	0.00	0.80	-0.43	0.07	0.00	0.65	-0.43	0.05	0.00	0.65	
Maternal knowledge of activities - banded	Below median			0.00				0.00				0.00		
	Median	-0.09	0.06	0.12	0.91	-0.37	0.06	0.00	0.69	-0.38	0.05	0.00	0.69	
	Above median	-0.40	0.08	0.00	0.67	-0.46	0.08	0.00	0.63	-0.54	0.06	0.00	0.58	
How well off would you say your family is?	Very well off			0.00				0.18				0.00		
	Quite well off	-0.21	0.08	0.01	0.81	-0.04	0.08	0.65	0.96	0.23	0.07	0.00	1.26	
	Average	0.01	0.08	0.94	1.01	0.05	0.08	0.54	1.05	0.41	0.07	0.00	1.51	
	Not well off	0.38	0.11	0.00	1.46	-0.10	0.13	0.42	0.90	0.87	0.11	0.00	2.38	
	Not at all well off	0.59	0.18	0.00	1.80	0.32	0.19	0.09	1.38	0.72	0.18	0.00	2.06	
Number of close friends	None			0.00				0.03				0.00		
	One	-1.80	0.26	0.00	0.16	-0.13	0.21	0.52	0.88	-0.67	0.23	0.00	0.51	
	Two or more	-2.78	0.25	0.00	0.06	-0.34	0.18	0.06	0.71	-1.31	0.21	0.00	0.27	
Are your friends older, younger, or about the same age as you?	Older than me			0.00				0.05				0.00		
	Younger than me	-0.14	0.19	0.46	0.87	-0.27	0.23	0.24	0.76	-0.61	0.20	0.00	0.54	
	About the same age as me	-0.97	0.10	0.00	0.38	-0.27	0.11	0.01	0.76	-0.91	0.10	0.00	0.40	
	Mixed ages	-0.71	0.10	0.00	0.49	-0.24	0.11	0.02	0.78	-0.56	0.10	0.00	0.57	
	Don't know	-0.39	0.42	0.35	0.68	0.36	0.34	0.30	1.43	-0.73	0.38	0.06	0.48	
How many evenings spent with friends	0-1 evenings			0.00				0.12				0.00		
	2-3 evenings	-0.43	0.07	0.00	0.65	-0.11	0.08	0.14	0.89	-0.28	0.07	0.00	0.76	
	4-5 evenings	-0.62	0.08	0.00	0.54	-0.20	0.09	0.02	0.82	-0.18	0.07	0.02	0.84	
	6-7 evenings	-0.80	0.09	0.00	0.45	-0.21	0.10	0.03	0.81	-0.13	0.08	0.12	0.88	

		Peer				Pro-social				SDQ overall			
How much do you like school at the moment?	I like it a lot			0.00				0.00				0.00	
	I like it a bit	0.33	0.07	0.00	1.39	0.48	0.09	0.00	1.62	0.33	0.07	0.00	1.39
	I don't like it very much	0.71	0.08	0.00	2.03	0.79	0.10	0.00	2.20	0.95	0.07	0.00	2.58
	I don't like it at all	0.99	0.10	0.00	2.69	1.02	0.11	0.00	2.77	1.40	0.09	0.00	4.05
How often feel strained or pressured by the schoolwork	Never			0.00				0.04				0.00	
	Sometimes	0.21	0.08	0.01	1.23	-0.09	0.08	0.25	0.91	0.68	0.08	0.00	1.97
	A lot of the time	0.46	0.09	0.00	1.59	-0.22	0.09	0.01	0.80	1.49	0.08	0.00	4.42
Truantiing	None			0.01				0.00				0.00	
	1-3 times	0.11	0.06	0.05	1.12	0.33	0.06	0.00	1.38	0.43	0.05	0.00	1.54
	4-10 times	0.10	0.09	0.29	1.10	0.59	0.08	0.00	1.81	0.65	0.08	0.00	1.92
	More than 10 times	0.37	0.11	0.00	1.45	0.49	0.11	0.00	1.63	0.74	0.12	0.00	2.10
Ever excluded	No			0.00				0.73				0.00	
	Yes	0.38	0.08	0.00	1.46	-0.06	0.09	0.51	0.94	0.43	0.08	0.00	1.53
Post-school expectations	University			0.00				0.00				0.00	
	FE	0.31	0.06	0.00	1.36	-0.05	0.06	0.45	0.95	0.24	0.05	0.00	1.27
	Apprenticeship	0.49	0.21	0.02	1.64	0.27	0.22	0.22	1.30	0.57	0.20	0.00	1.76
	Working	0.29	0.10	0.00	1.34	0.23	0.10	0.02	1.26	0.24	0.09	0.01	1.28
	Other	0.28	0.07	0.00	1.33	0.32	0.07	0.00	1.38	0.27	0.07	0.00	1.32
Constant		3.96	0.33	0.00	52.21	-1.15	0.30	0.00	0.32	1.17	0.29	0.00	3.22

Table F2a: Logistic regression model of boys in 2013: borderline/abnormal versus normal score for the emotion, conduct and hyperactivity components of SDQ

		Emotion				Conduct				Hyperactivity			
		B	S.E.	Sig.	Exp(B)	B	S.E.	Sig.	Exp(B)	B	S.E.	Sig.	Exp(B)
Year group	S4 compared to S2	-0.20	0.06	0.00	0.82	-0.41	0.05	0.00	0.66	-0.23	0.04	0.00	0.79
SIMD quintiles	1 - Most deprived			0.37				0.63				0.26	
	2	-0.06	0.09	0.54	0.95	-0.03	0.07	0.63	0.97	-0.09	0.06	0.17	0.91
	3	0.02	0.09	0.84	1.02	-0.05	0.07	0.47	0.95	-0.03	0.06	0.69	0.97
	4	0.11	0.09	0.22	1.11	-0.10	0.07	0.14	0.90	0.05	0.06	0.48	1.05
	5 - Least deprived	-0.01	0.09	0.87	0.99	-0.02	0.07	0.80	0.98	-0.02	0.06	0.72	0.98
Urban rural classification based on home postcode	Large urban areas			0.51				0.32				0.17	
	Other urban areas	0.04	0.07	0.52	1.04	0.05	0.05	0.31	1.06	0.09	0.05	0.05	1.10
	Small accessible towns	0.04	0.10	0.69	1.04	0.06	0.08	0.42	1.07	-0.01	0.07	0.85	0.99
	Small remote towns	0.06	0.14	0.69	1.06	0.14	0.11	0.19	1.16	-0.10	0.10	0.34	0.91
	Accessible rural	0.06	0.09	0.51	1.06	-0.05	0.07	0.50	0.95	0.02	0.06	0.79	1.02
	Remote rural	-0.19	0.13	0.14	0.83	0.13	0.10	0.16	1.14	-0.06	0.09	0.50	0.94
Free School Meal entitlement	Yes			0.02				0.03				0.25	
	No	-0.06	0.08	0.45	0.94	-0.16	0.07	0.01	0.85	-0.07	0.06	0.29	0.94
Actively taken part in youth groups	No			0.35				0.00				0.16	
	Yes	0.00	0.07	0.99	1.00	0.23	0.06	0.00	1.26	0.09	0.05	0.06	1.10
Actively taken part in a drama, arts, music or singing groups	No			0.88				0.36				0.06	
	Yes	-0.01	0.08	0.88	0.99	-0.07	0.07	0.36	0.94	0.12	0.06	0.06	1.12
Actively taken part in a sports group, gym, exercise or dance	No			0.00				0.14				0.25	
	Yes	-0.32	0.09	0.00	0.73	0.11	0.07	0.14	1.12	0.08	0.07	0.25	1.08
Actively taken part in computer group	No			0.00				0.25				0.23	
	Yes	0.42	0.10	0.00	1.53	0.10	0.09	0.25	1.10	0.09	0.08	0.23	1.10
Actively taken part in none of these	No			0.19				0.21				0.44	
	Yes	-0.13	0.10	0.19	0.88	-0.11	0.09	0.21	0.90	0.06	0.08	0.44	1.06
Frequency of seeing your friends	At least weekly			0.00				0.15				0.02	

		Emotion				Conduct				Hyperactivity			
Frequency of listening to music	Less than weekly	0.44	0.08	0.00	1.55	0.11	0.08	0.14	1.12	-0.15	0.07	0.02	0.86
	At least weekly			0.82				0.15				0.61	
	Less than weekly	0.03	0.09	0.77	1.03	-0.03	0.08	0.70	0.97	-0.02	0.07	0.78	0.98
Frequency of watching sports matches	At least weekly			0.03				0.09				0.00	
	Less than weekly	0.17	0.06	0.01	1.19	-0.10	0.05	0.04	0.90	0.08	0.04	0.07	1.08
Frequency of going to the cinema	At least weekly			0.00				0.00				0.12	
	Less than weekly	-0.15	0.07	0.03	0.86	-0.21	0.05	0.00	0.81	0.08	0.05	0.10	1.08
Frequency of hanging around the street	At least weekly			0.11				0.00				0.00	
	Less than weekly	-0.14	0.07	0.04	0.87	-0.47	0.05	0.00	0.62	-0.23	0.05	0.00	0.80
Frequency of doing a hobby	At least weekly			0.05				0.04				0.00	
	Less than weekly	-0.11	0.06	0.05	0.89	0.10	0.05	0.04	1.10	0.17	0.04	0.00	1.19
Frequency of going to a friend's house	At least weekly			0.85				0.96				0.06	
	Less than weekly	0.01	0.07	0.85	1.01	-0.01	0.06	0.90	0.99	-0.09	0.05	0.09	0.92
Frequency of going to concerts or gigs	At least weekly			0.76				0.00				0.06	
	Less than weekly	-0.05	0.11	0.66	0.95	-0.32	0.09	0.00	0.72	0.04	0.09	0.68	1.04
Frequency of going to church	At least weekly			0.30				0.01				0.00	
	Less than weekly	0.14	0.09	0.13	1.15	0.08	0.08	0.30	1.08	0.34	0.07	0.00	1.41
Frequency of watching films/ DVDs	At least weekly			0.61				0.49				0.49	
	Less than weekly	-0.03	0.07	0.66	0.97	0.03	0.06	0.66	1.03	-0.06	0.05	0.24	0.94
Frequency of playing computer games	At least weekly			0.32				0.08				0.06	
	Less than weekly	-0.13	0.09	0.14	0.88	-0.15	0.07	0.03	0.86	-0.15	0.06	0.02	0.86
Frequency of doing sports	At least weekly			0.02				0.04				0.90	
	Less than weekly	0.19	0.07	0.01	1.21	0.15	0.06	0.01	1.17	-0.02	0.05	0.67	0.98
Frequency of doing voluntary work	At least weekly			0.15				0.04				0.16	
	Less than weekly	-0.12	0.08	0.13	0.88	-0.14	0.07	0.03	0.87	0.10	0.06	0.10	1.11
Frequency of using social networking sites	At least weekly			0.48				0.56				0.07	
	Less than weekly	-0.09	0.08	0.25	0.92	-0.02	0.06	0.81	0.98	-0.02	0.06	0.71	0.98

		Emotion				Conduct				Hyperactivity			
Frequency of using a public library	At least weekly			0.84				0.19				0.33	
	Less than weekly	-0.01	0.12	0.96	0.99	-0.17	0.10	0.08	0.84	0.14	0.09	0.14	1.15
Frequency of going to a museum	At least weekly			0.33				0.03				0.00	
	Less than weekly	-0.15	0.14	0.29	0.86	-0.30	0.12	0.01	0.74	-0.30	0.11	0.01	0.74
Frequency of going to the theatre	At least weekly			0.27				0.61				0.42	
	Less than weekly	-0.22	0.15	0.15	0.81	-0.13	0.13	0.32	0.88	0.16	0.12	0.20	1.17
Family status	Single parent			0.15				0.32				0.00	
	Step parent (and one parent)	0.03	0.11	0.80	1.03	0.07	0.09	0.42	1.07	0.14	0.08	0.08	1.15
	Both parents	-0.02	0.07	0.78	0.98	0.04	0.06	0.50	1.04	-0.11	0.05	0.04	0.90
	Other	0.12	0.12	0.32	1.13	0.21	0.10	0.04	1.24	-0.18	0.10	0.06	0.83
Paternal knowledge of activities - banded	Below median			0.01				0.00				0.00	
	Median	-0.18	0.09	0.04	0.83	-0.13	0.07	0.05	0.88	-0.14	0.06	0.02	0.87
	Above median	-0.25	0.07	0.00	0.78	-0.26	0.06	0.00	0.77	-0.23	0.05	0.00	0.79
Maternal knowledge of activities - banded	Below median			0.01				0.00				0.00	
	Median	0.01	0.07	0.84	1.02	-0.39	0.06	0.00	0.68	-0.10	0.05	0.07	0.91
	Above median	-0.21	0.08	0.01	0.81	-0.58	0.06	0.00	0.56	-0.24	0.05	0.00	0.79
How well off would you say your family is?	Very well off			0.00				0.70				0.00	
	Quite well off	0.00	0.08	0.96	1.00	0.03	0.06	0.69	1.03	-0.01	0.06	0.91	0.99
	Average	0.20	0.08	0.01	1.23	0.07	0.06	0.29	1.07	0.01	0.06	0.83	1.01
	Not well off	0.37	0.14	0.01	1.45	0.17	0.12	0.15	1.18	0.51	0.10	0.00	1.66
	Not at all well off	0.48	0.20	0.02	1.61	0.12	0.18	0.52	1.12	0.27	0.16	0.11	1.30
Number of close friends	None			0.00				0.00				0.71	
	One	0.02	0.20	0.94	1.02	0.33	0.20	0.10	1.39	0.10	0.19	0.59	1.11
	Two or more	-0.59	0.17	0.00	0.55	0.06	0.17	0.70	1.07	0.16	0.15	0.32	1.17
Are your friends older, younger, or about the same age as you?	Older than me			0.00				0.00				0.00	
	Younger than me	0.03	0.19	0.87	1.03	-0.47	0.17	0.01	0.63	-0.58	0.17	0.00	0.56

		Emotion				Conduct				Hyperactivity			
	About the same age me	-0.39	0.12	0.00	0.68	-0.60	0.10	0.00	0.55	-0.30	0.09	0.00	0.74
	Mixed ages	-0.32	0.12	0.01	0.72	-0.31	0.10	0.00	0.73	-0.09	0.10	0.33	0.91
	Don't know	-0.33	0.30	0.27	0.72	0.07	0.26	0.78	1.07	-0.04	0.25	0.86	0.96
How many evenings spent with friends	0-1 evenings			0.42				0.00				0.05	
	2-3 evenings	-0.06	0.08	0.46	0.94	0.02	0.07	0.78	1.02	-0.05	0.06	0.44	0.95
	4-5 evenings	-0.09	0.09	0.36	0.92	0.02	0.08	0.81	1.02	0.04	0.07	0.60	1.04
	6-7 evenings	0.05	0.10	0.62	1.05	0.29	0.08	0.00	1.34	0.13	0.08	0.08	1.14
How much do you like school at the moment?	I like it a lot			0.00				0.00				0.00	
	I like it a bit	-0.09	0.08	0.26	0.91	0.17	0.07	0.01	1.19	0.10	0.06	0.08	1.10
	I don't like it very much	0.32	0.09	0.00	1.38	0.55	0.08	0.00	1.74	0.43	0.07	0.00	1.54
	I don't like it at all	0.53	0.11	0.00	1.71	1.00	0.09	0.00	2.72	0.61	0.08	0.00	1.85
How often feel strained or pressured by the schoolwork	Never			0.00				0.00				0.00	
	Sometimes	0.42	0.09	0.00	1.52	0.20	0.06	0.00	1.22	0.17	0.05	0.00	1.19
	A lot of the time	1.43	0.10	0.00	4.20	0.70	0.07	0.00	2.02	0.75	0.06	0.00	2.12
Truancing	None			0.00				0.00				0.00	
	1-3 times	-0.12	0.07	0.06	0.88	0.49	0.05	0.00	1.63	0.27	0.05	0.00	1.31
	4-10 times	0.23	0.10	0.02	1.26	0.71	0.08	0.00	2.04	0.40	0.08	0.00	1.50
	More than 10 times	0.30	0.12	0.02	1.35	0.95	0.11	0.00	2.59	0.29	0.10	0.00	1.34
Ever excluded	No			0.09				0.00				0.00	
	Yes	0.17	0.08	0.03	1.19	0.61	0.06	0.00	1.84	0.46	0.06	0.00	1.58
Post-school expectations	University			0.02				0.00				0.00	
	FE	0.20	0.08	0.01	1.22	0.30	0.06	0.00	1.35	0.22	0.06	0.00	1.24
	Apprenticeship	-0.19	0.11	0.09	0.83	0.29	0.08	0.00	1.34	0.22	0.07	0.00	1.24
	Working	0.10	0.09	0.30	1.10	0.34	0.07	0.00	1.40	0.25	0.07	0.00	1.28
	Other	0.09	0.08	0.22	1.10	0.26	0.06	0.00	1.29	0.33	0.05	0.00	1.39
Constant		-0.49	0.29	0.09	0.61	0.20	0.26	0.43	1.22	-1.33	0.24	0.00	0.27

Table F2b: Logistic regression model of boys in 2013: borderline/abnormal versus normal score for the peer and pro-social components of SDQ and SDQ overall.

		Peer				Pro-social				SDQ overall			
		B	S.E.	Sig.	Exp(B)	B	S.E.	Sig.	Exp(B)	B	S.E.	Sig.	Exp(B)
Year group	S4 compared to S2	-0.14	0.05	0.00	0.87	0.28	0.04	0.00	1.32	-0.38	0.05	0.00	0.68
SIMD quintiles	1 - Most deprived quintile			0.01				0.02				0.05	
	2	0.00	0.08	1.00	1.00	-0.10	0.06	0.11	0.90	-0.09	0.07	0.20	0.91
	3	0.00	0.08	0.99	1.00	-0.15	0.06	0.02	0.86	-0.13	0.07	0.06	0.87
	4	-0.11	0.08	0.15	0.90	-0.16	0.06	0.01	0.85	-0.11	0.07	0.11	0.89
	5 - Least deprived quintile	-0.21	0.08	0.01	0.81	-0.21	0.06	0.00	0.81	-0.22	0.07	0.00	0.80
Urban rural classification based on home postcode	Large urban areas			0.34				0.01				0.00	
	Other urban areas	0.10	0.06	0.09	1.10	0.07	0.05	0.12	1.08	0.20	0.05	0.00	1.22
	Small accessible towns	0.06	0.09	0.52	1.06	0.24	0.07	0.00	1.27	0.04	0.08	0.61	1.04
	Small remote towns	0.08	0.12	0.52	1.08	0.07	0.10	0.46	1.08	0.11	0.11	0.33	1.12
	Accessible rural	0.08	0.08	0.27	1.09	0.10	0.06	0.12	1.10	0.05	0.07	0.51	1.05
	Remote rural	-0.09	0.10	0.38	0.91	0.24	0.08	0.00	1.27	-0.10	0.10	0.34	0.91
Free School Meal entitlement	Yes			0.00				0.89				0.03	
	No	-0.33	0.07	0.00	0.72	-0.03	0.06	0.68	0.98	-0.14	0.07	0.04	0.87
Actively taken part in youth groups	No			0.01				0.00				0.03	
	Yes	0.16	0.06	0.01	1.18	-0.14	0.05	0.01	0.87	0.15	0.06	0.01	1.16
Actively taken part in a drama, arts, music or singing groups	No			0.20				0.00				0.53	
	Yes	0.09	0.07	0.20	1.10	-0.26	0.07	0.00	0.77	-0.04	0.07	0.53	0.96
Actively taken part in a sports group, gym, exercise or dance	No			0.00				0.15				0.03	
	Yes	-0.35	0.07	0.00	0.70	-0.10	0.07	0.15	0.91	-0.16	0.07	0.03	0.85
Actively taken part in a computer group	No			0.00				0.75				0.00	
	Yes	0.49	0.08	0.00	1.62	-0.03	0.08	0.75	0.97	0.28	0.08	0.00	1.32

		Peer				Pro-social				SDQ overall			
Actively taken part in none of these	No			0.93				0.74				0.76	
	Yes	-0.01	0.09	0.93	0.99	0.03	0.08	0.74	1.03	-0.03	0.09	0.76	0.97
Frequency of seeing your friends	At least weekly			0.00				0.27				0.14	
	Less than weekly	0.46	0.07	0.00	1.59	0.00	0.06	0.96	1.00	0.14	0.07	0.05	1.15
Frequency of listening to music	At least weekly			0.06				0.00				0.95	
	Less than weekly	0.17	0.07	0.02	1.18	0.26	0.06	0.00	1.30	0.00	0.07	1.00	1.00
Frequency of watching sports matches	At least weekly			0.00				0.28				0.36	
	Less than weekly	0.26	0.05	0.00	1.30	-0.05	0.04	0.21	0.95	0.07	0.05	0.18	1.07
Frequency of going to the cinema	At least weekly			0.99				0.01				0.00	
	Less than weekly	0.01	0.06	0.88	1.01	-0.12	0.05	0.01	0.89	-0.07	0.05	0.19	0.93
Frequency of hanging around the street	At least weekly			0.18				0.38				0.00	
	Less than weekly	0.02	0.06	0.75	1.02	-0.06	0.05	0.17	0.94	-0.20	0.05	0.00	0.81
Frequency of doing a hobby	At least weekly			0.00				0.00				0.75	
	Less than weekly	-0.25	0.05	0.00	0.78	0.31	0.04	0.00	1.36	-0.03	0.05	0.46	0.97
Frequency of going to a friend's house	At least weekly			0.00				0.00				0.69	
	Less than weekly	0.22	0.06	0.00	1.24	0.26	0.05	0.00	1.29	0.05	0.06	0.39	1.05
Frequency of going to concerts or gigs	At least weekly			0.00				0.00				0.01	
	Less than weekly	-0.38	0.10	0.00	0.69	-0.29	0.09	0.00	0.75	-0.29	0.09	0.00	0.75
Frequency of going to church	At least weekly			0.12				0.47				0.00	
	Less than weekly	0.09	0.08	0.24	1.09	0.08	0.07	0.22	1.08	0.21	0.08	0.01	1.23
Frequency of watching films/ DVDs	At least weekly			0.99				0.48				0.04	
	Less than weekly	0.01	0.06	0.87	1.01	0.02	0.05	0.71	1.02	-0.15	0.06	0.01	0.86
Frequency of playing computer games	At least weekly			0.15				0.00				0.25	
	Less than weekly	-0.04	0.07	0.60	0.96	-0.20	0.06	0.00	0.82	-0.11	0.07	0.11	0.89
Frequency of doing sports	At least weekly			0.09				0.65				0.00	
	Less than weekly	0.14	0.06	0.03	1.15	0.05	0.05	0.36	1.05	0.21	0.06	0.00	1.23
Frequency of doing voluntary work	At least weekly			0.03				0.00				0.25	

		Peer				Pro-social				SDQ overall			
Frequency of using social networking sites	Less than weekly	-0.18	0.07	0.01	0.84	0.76	0.07	0.00	2.13	-0.04	0.07	0.58	0.96
	At least weekly			0.28				0.46				0.17	
Frequency of using a public library	Less than weekly	0.07	0.06	0.27	1.07	-0.01	0.05	0.79	0.99	0.10	0.06	0.12	1.10
	At least weekly			0.00				0.80				0.35	
Frequency of going to a museum	Less than weekly	-0.31	0.09	0.00	0.73	-0.03	0.09	0.74	0.97	-0.05	0.10	0.58	0.95
	At least weekly			0.00				0.02				0.01	
Frequency of going to the theatre	Less than weekly	-0.79	0.11	0.00	0.46	-0.20	0.12	0.08	0.82	-0.36	0.12	0.00	0.69
	At least weekly			0.00				0.01				0.09	
Family status	Single parent			0.59				0.10				0.39	
	Step parent (and one parent)	0.08	0.09	0.40	1.08	0.01	0.08	0.92	1.01	0.07	0.09	0.41	1.07
	Both parents	-0.05	0.06	0.45	0.96	0.10	0.05	0.04	1.11	-0.02	0.06	0.68	0.98
	Other	0.03	0.11	0.77	1.03	0.14	0.09	0.14	1.15	-0.09	0.11	0.41	0.92
Paternal knowledge of activities - banded	Below median			0.90				0.00				0.00	
	Median	-0.04	0.07	0.58	0.96	-0.07	0.06	0.28	0.94	-0.19	0.07	0.01	0.83
	Above median	-0.04	0.06	0.57	0.96	-0.17	0.05	0.00	0.84	-0.29	0.06	0.00	0.75
Maternal knowledge of activities - banded	Below median			0.00				0.00				0.00	
	Median	-0.17	0.06	0.01	0.84	-0.29	0.05	0.00	0.75	-0.20	0.06	0.00	0.81
	Above median	-0.16	0.06	0.01	0.85	-0.47	0.05	0.00	0.62	-0.39	0.06	0.00	0.68
How well off would you say your family is? - in survey from 2006	Very well off			0.00				0.04				0.00	
	Quite well off	-0.03	0.07	0.63	0.97	0.00	0.06	0.98	1.00	0.10	0.07	0.15	1.10
	Average	0.16	0.07	0.02	1.18	-0.03	0.06	0.58	0.97	0.21	0.07	0.00	1.23
	Not well off	0.28	0.12	0.02	1.32	-0.33	0.11	0.00	0.72	0.62	0.11	0.00	1.86
	Not at all well off	0.64	0.19	0.00	1.89	-0.16	0.17	0.34	0.85	0.48	0.18	0.01	1.61
Number of close friends	None			0.00				0.00				0.00	
	One	-0.98	0.20	0.00	0.38	-0.14	0.18	0.44	0.87	0.01	0.19	0.96	1.01

		Peer				Pro-social				SDQ overall			
	Two or more	-2.00	0.17	0.00	0.14	-0.39	0.14	0.01	0.68	-0.67	0.16	0.00	0.51
Are your friends older, younger, or about the same age as you?	Older than me			0.00				0.00				0.00	
	Younger than me	-0.19	0.17	0.27	0.83	0.16	0.16	0.31	1.17	-0.39	0.17	0.02	0.67
	About the same age as me	-0.66	0.10	0.00	0.52	-0.19	0.09	0.04	0.82	-0.61	0.10	0.00	0.54
	Mixed ages	-0.35	0.11	0.00	0.70	-0.18	0.10	0.07	0.84	-0.31	0.10	0.00	0.74
	Don't know	0.36	0.29	0.22	1.44	0.25	0.25	0.31	1.29	0.27	0.27	0.33	1.31
How many evenings spent with friends	0-1 evenings			0.00				0.00				0.09	
	2-3 evenings	-0.18	0.07	0.01	0.84	-0.03	0.06	0.64	0.97	-0.12	0.07	0.08	0.88
	4-5 evenings	-0.36	0.08	0.00	0.70	-0.12	0.07	0.07	0.89	-0.16	0.08	0.03	0.85
	6-7 evenings	-0.39	0.09	0.00	0.68	-0.26	0.07	0.00	0.77	-0.05	0.08	0.55	0.95
How much do you like school at the moment?	I like it a lot			0.00				0.00				0.00	
	I like it a bit	0.19	0.07	0.00	1.21	0.72	0.06	0.00	2.06	0.13	0.06	0.04	1.14
	I don't like it very much	0.41	0.08	0.00	1.50	0.86	0.07	0.00	2.35	0.51	0.08	0.00	1.67
	I don't like it at all	0.74	0.10	0.00	2.09	1.23	0.08	0.00	3.44	1.03	0.09	0.00	2.81
How often feel strained or pressured by the schoolwork	Never			0.00				0.00				0.00	
	Sometimes	0.22	0.07	0.00	1.25	-0.08	0.05	0.11	0.92	0.38	0.06	0.00	1.47
	A lot of the time	0.62	0.08	0.00	1.86	-0.33	0.06	0.00	0.72	1.31	0.07	0.00	3.72
Truancing	None			0.91				0.00				0.00	
	1-3 times	0.05	0.06	0.35	1.05	0.21	0.04	0.00	1.24	0.31	0.05	0.00	1.36
	4-10 times	0.02	0.09	0.83	1.02	0.22	0.07	0.00	1.24	0.49	0.08	0.00	1.63
	More than 10 times	0.04	0.12	0.71	1.04	0.19	0.10	0.07	1.20	0.60	0.11	0.00	1.81
Ever excluded	No			0.00				0.00				0.00	
	Yes	0.23	0.07	0.00	1.26	0.28	0.06	0.00	1.33	0.56	0.06	0.00	1.75
Post-school expectations	University			0.00				0.00				0.00	
	FE	0.21	0.07	0.00	1.24	0.13	0.06	0.02	1.14	0.34	0.07	0.00	1.41
	Apprenticeship	0.18	0.09	0.05	1.19	-0.01	0.07	0.89	0.99	0.18	0.08	0.03	1.19

		Peer				Pro-social				SDQ overall			
	Working	0.23	0.08	0.00	1.25	0.17	0.06	0.01	1.19	0.34	0.07	0.00	1.41
	Other	0.23	0.06	0.00	1.26	0.28	0.05	0.00	1.32	0.32	0.06	0.00	1.37
Constant		3.06	0.27	0.00	21.30	-0.39	0.23	0.09	0.68	0.89	0.25	0.00	2.43

How to access background or source data

The data collected for this official statistics publication:

are available via the UK Data Archive

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