

Mental Health of Children and Young People in England, 2017

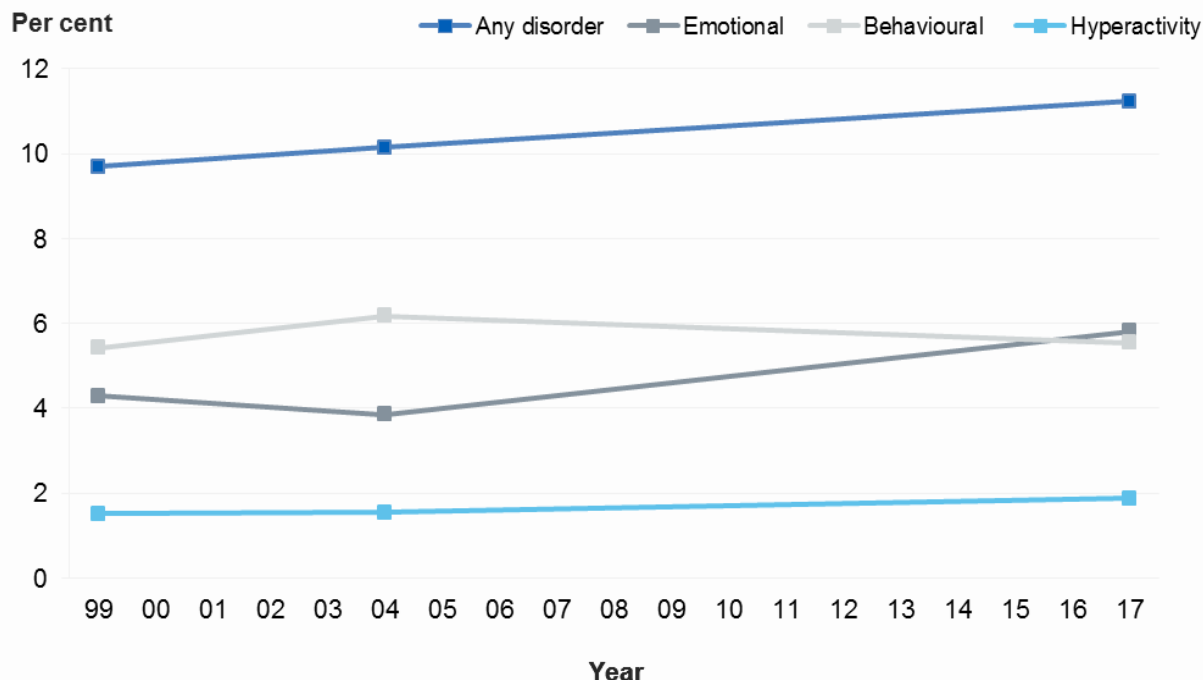
Trends and characteristics

This survey series provides England's best source of data on trends in child mental health. Emotional, behavioural, hyperactivity, and other types of mental disorder were assessed in 5 to 15 year olds in 1999, 5 to 16 year olds in 2004, and 5 to 19 year olds in 2017.

One in eight (12.8%) 5 to 19 year olds had a mental disorder when assessed in 2017. Rates were similar in boys and girls. Data for 5 to 15 year olds show a slight upward trend over time in the prevalence of emotional disorders. Rates for behavioural, hyperactivity and other disorders have remained broadly stable.

Figure 1: Prevalence of any disorder, emotional disorder, behavioural disorder, and hyperactivity disorder, 1999, 2004, 2017

Base: 5 to 15 year olds



Source: NHS Digital

Main findings

Trends in disorder prevalence

- In 2017, one in eight (12.8%) 5 to 19 year olds met the criteria for at least one mental disorder at the time of interview. Overall rates of disorder were similar in boys (12.6%) and girls (12.9%). Rates were highest in girls aged 17 to 19 (23.9%).
- Trends over time can be produced for 5 to 15 year olds, in whom there has been an upward trend in the prevalence of any disorder (9.7% in 1999, 10.1% in 2004, and 11.2% in 2017).
- One in twelve (8.1%) 5 to 19 year olds had an emotional disorder like anxiety or depression. This was more common in girls (10.0%) than boys (6.2%), and rates increased with age. Rates in 5 to 15 year olds increased between 2004 (3.9%) and 2017 (5.8%).
- About one in twenty (4.6%) 5 to 19 year olds had a behavioural (or 'conduct') disorder. This was more common in boys (5.8%) than girls (3.4%). Rates in 5 to 15 year olds have remained broadly stable.
- About one in sixty (1.6%) 5 to 19 year olds had a hyperactivity disorder. This was more common in boys (2.6%) than girls (0.6%). Rates in 5 to 15 year olds have remained stable.
- About one in fifty (2.1%) 5 to 19 year olds was identified with another type of disorder, such as an eating disorder or autism. Overall rates have remained stable.

Characteristics of children and young people with a disorder

- **Demographics:** Alongside variation by age and sex, disorder rates varied by ethnic group. White British 5 to 19 year olds were about three times more likely (14.9%) than Black/Black British (5.6%) or Asian/Asian British (5.2%) children to have a disorder.
- **Socioeconomics:** Living in a low-income household or with a parent in receipt of income-related benefits was associated with higher rates of mental disorder in children. However, there was no association with neighbourhood deprivation.
- **Health:** Children with poor general health, special educational needs, or children with a parent with poor mental health or in receipt of a disability-related benefit, were more likely to have a mental disorder than other children.
- **Family:** Rates of mental disorder were higher in children living in households with less healthy family functioning.

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This report may be of interest to people working with children and young people in mental health, social care or educational settings, as well as to policy officials, commissioners of health and care services, and parents, young people and the general public. Trends in child mental health and a profile of children and young people are most likely to be affected by mental health problems are presented.

Acknowledgements

First of all, we thank all the children, young people, parents and teachers who so generously gave their time to participate in this survey.

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Introduction

Major surveys of the mental health of children and young people in England were carried out in 1999 (Meltzer et al., 2000), 2004 (Green et al., 2005), and 2017. The latest survey was funded by the Department of Health and Social Care, commissioned by NHS Digital, and carried out by the National Centre for Social Research, the Office for National Statistics and Youthinmind.

In each of the three surveys, the Development and Well-Being Assessment (DAWBA) was administered to a stratified probability sample of children and young people and their parents and teachers (Goodman et al., 2000). Cases were reviewed by clinically-trained raters. While many surveys use brief tools to screen for nonspecific psychiatric distress or dissatisfaction, this series applied rigorous, detailed and consistent methods to assess for a range of different types of disorder according to International Classification of Disease (ICD-10) diagnostic criteria (WHO, 1992). Comparable data is available for 5 to 15 year olds living in England in 1999, 2004, and 2017. In keeping with broadening definitions of adolescence (Sawyer et al., 2018), the 2017 sample was the first in the series to include 17 to 19 year olds. Children aged 2 to 4 were also included in the sample, offering a rare insight into the prevalence of mental disorders in preschool aged children.

This Trends and Characteristics topic report presents the:

- Prevalence of any disorder and of different types of disorder in 5 to 19 year olds, by age and sex
- Trends in disorder between 1999 and 2017 among 5 to 15 year olds, by age and sex
- Health, social, and economic characteristics of children and young people with a disorder, compared to those without.

As well as a Summary Report, a series of other topic reports are available focusing on:

- Emotional disorders
- Behavioural disorders
- Hyperactivity disorders
- Autism spectrum, eating and other less common disorders
- Predictors of mental disorder
- Multiple conditions and wellbeing
- Professional services, informal support and education
- Behaviours, lifestyles and identities
- Preschool children.

Further information about the survey and methods can be found in the Methods and Definitions sections at the end of this report, and in the Survey Design and Methods Report. All reports are available at: <https://digital.nhs.uk/pubs/mhcypsurvey17>.

Background

There is a widespread perception that children and young people today are more troubled than previous generations (Murphy and Fonagy, 2013). Rates of mental health problems – in particular conduct and emotional disorders – rose in children and young people in the UK between 1974 to 1999 (Collishaw et al., 2004). The two previous surveys of child mental health found no further overall change in rates between 1999 and 2004. Since 2004, however, there have been increases in the:

- Number of referrals of pupils by schools for specialist mental health services (NSPCC, 2018)
- Proportion of children being prescribed antidepressant medication (Sarginson et al., 2017)
- Presentation in accident and emergency by children and young people for a mental health reason (Royal College of Emergency Medicine, 2017)
- Likelihood that parents perceived their child to have a mental disorder (Pitchforth et al., 2018)
- Rates of low wellbeing and dissatisfaction with aspects of life, especially in girls (The Children's Society, 2018).

None of these increases necessarily mean that children now have worse mental health than they did before. Diagnosis and treatment rates can reflect changes in help-seeking behaviour, access to mental health professionals, and diagnostic criteria and practice. Parents' perceptions, and their resulting responses, can be shaped by changes in awareness, knowledge, stigma, and understanding of what constitutes mental disorder (Rüsch et al., 2017). And while low wellbeing and dissatisfaction indicators are closely associated with mental health, they are not the same as mental disorder (Weich et al., 2012). Any approach to the assessment of mental health or wellbeing is subject to the strengths and limitations of the classification system used (Clark et al., 2017).

While not immune to changes over time in perception and reporting, the most reliable way to assess trends in child mental health is with a survey of the general population using consistent and detailed assessment of the presence of specific symptoms, validated with clinical consensus ratings. The *Five Year Forward View for Mental Health* (Mental Health Taskforce, 2016) made a series of recommendations for improving mental health outcomes by 2020. This included the commissioning of regular mental health prevalence surveys of children, young people, and adults of all ages. This survey provides the latest estimates of the proportion of children and young people in England with a mental disorder.

Terminology

In this report, the words ‘children’, ‘boys’ and ‘girls’ are used, even when 17 to 19 year olds are included in the group. This is to avoid the text becoming cumbersome.

The term ‘mental disorder’ is generally used in this report. This is because the survey did not screen for general mental health ‘problems’ or ‘issues’, but applied the diagnostic criteria for specific disorders set out in the tenth International Classification of Disease (ICD-10) (WHO, 1992). We are also sensitive, however, to the negative connotations of the word disorder, and in particular to understanding autism spectrum disorders (ASD) as part of a spectrum of neurodiversity. These are sometimes referred to in the wider literature as autism spectrum conditions (ASC).

Prevalence of any disorder

For a child to be classified with a disorder they had to meet diagnostic criteria for at least one emotional, behavioural, hyperactivity, or other disorder around the time of the interview. Two ‘any disorder’ measures have been produced for 2017:

Prevalence in 2017: this measure comprises the disorders included on previous surveys in the series, plus body dysmorphic disorder (BDD) and a few very low prevalence conditions (such as bipolar affective disorder) added in 2017. It is our best estimate for the prevalence of disorder among children in 2017.

Trend analyses: this measure comprises only disorders included on every survey in the series, so that any change over time can be traced with a comparable measure. It does not include BDD or any of the disorders added in 2017. It is our best measure for understanding trends over time.

Prevalence of any disorder in 2017, by age and sex

In 2017, one in eight (12.8%) 5 to 19 year olds met the criteria for at least one mental disorder. This is an estimate based on a sample. If all children in the population had participated, it is likely that the proportion identified with at least one disorder would have been between 11.9% and 13.7%. This range is referred to as the 95% confidence interval (CI). If the sample had been drawn twenty times, for nineteen of those we would expect the estimate to be in this range.¹

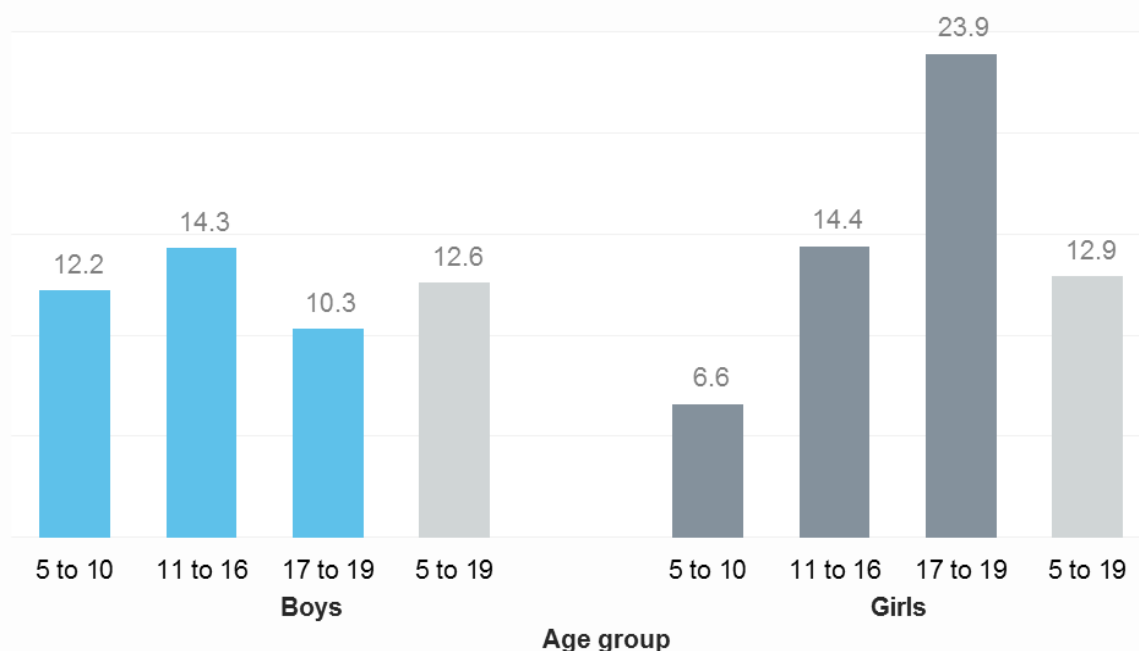
Overall rates of disorder were similar in boys (12.6%) and girls (12.9%). The likelihood of having a disorder increased with age: from 9.5% of 5 to 10 year olds to 14.4% of 11 to 16 year olds and 16.9% of young people aged 17 to 19.

¹ See the Methods section and the Survey Design and Methods Report for further confidence interval information for the estimates presented in this report.

Figure 2: Any disorder by age and sex, 2017

Base: 5 to 19 year olds

Per cent



Source: NHS Digital

The pattern of association between age and disorder was different for boys and girls. In girls the association was pronounced, but it was not apparent in boys. Among 5 to 10 year olds, boys (12.2%) were more likely than girls (6.6%) to have a disorder. Boys (14.3%) and girls (14.4%) aged 11 to 16 were equally likely to have a disorder. While in 17 to 19 year olds, girls (23.9%) were more than twice as likely as boys (10.3%) to have a disorder. The 2014 Adult Psychiatric Morbidity Survey (APMS) also identified young women as a high risk group for poor mental health (McManus et al., 2016), as have other recent studies (Lessof et al., 2016). See the Summary Report for further consideration of this group. (Figure 2; Table 5)

Trends in any disorder in 5 to 15 year olds, 1999-2017

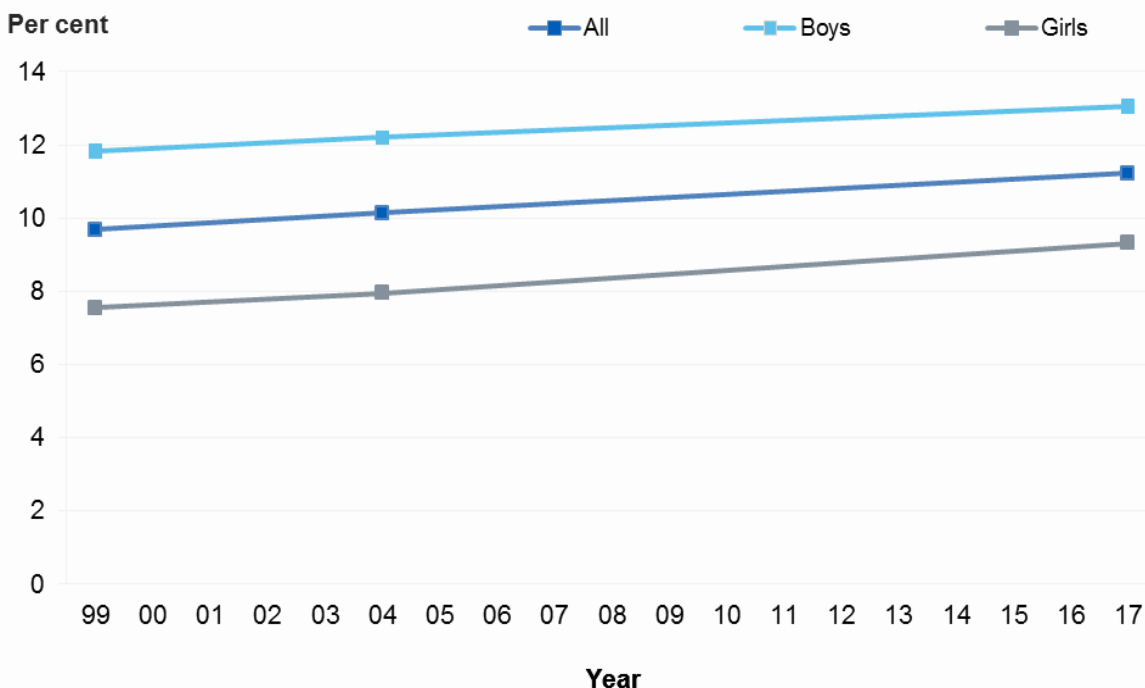
Trends in the prevalence of mental disorder can be produced for 5 to 15 year olds (the age-group covered on all surveys in the series) living in England using comparable data from 1999, 2004, and 2017. The trend measure, as defined above, does not include BDD or any of the disorders included in the 2017 survey for the first time in the series.

There has been a slight upward trend over time in the prevalence of any disorder among 5 to 15 year olds: from 9.7%² in 1999 and 10.1%³ in 2004, to 11.2%⁴ in 2017. The rate in 2017 was higher than that in 1999, but not significantly higher than the 2004 rate.⁵ The upward trend between 1999 and 2017 was evident in 11 to 15 year olds, but was not significant in those aged 5 to 10. (Figure 3; Table 1)

Figure 3: Prevalence of any disorder by sex, 1999, 2004, 2017

Base: 5 to 15 year olds

Per cent



Source: NHS Digital

Further information

See the Methods and Definitions sections for information about definitions and assessment, and the Survey Design and Methods Report for further confidence intervals around key estimates.

² The proportion of 5 to 15 year olds with a disorder in 1999 was likely to be between 9.0% and 10.4%.

³ The proportion of 5 to 15 year olds with a disorder in 2004 was likely to be between 9.2% and 11.0%.

⁴ The proportion of 5 to 15 year olds with a disorder in 2017 was likely to be between 10.3% and 12.1%.

⁵ While the confidence intervals around the 1999 and 2017 rates of any disorder do overlap, t-tests indicate that there had been a real increase in the prevalence of any disorder over this period.

Emotional disorders

A range of different types of emotional disorder were assessed. These were grouped into anxiety disorders (including separation anxiety, different phobias, obsessive compulsive disorder, panic, post-traumatic stress disorder, generalised anxiety, and other anxiety disorders), depressive disorders (including major and other depressive episodes), and bipolar affective disorder.

Two 'any emotional disorder' measures were produced for 2017:

Prevalence of emotional disorder in 2017: this measure comprises the emotional disorders included on previous surveys in the series, plus BDD.

Trends in emotional disorder: this measure comprises only the emotional disorders included on all surveys in the series, and does not include BDD.

Prevalence of emotional disorders in 2017, by age and sex

Any emotional disorder

Of the different types of disorder examined on the survey, emotional disorders were the most common overall. One in twelve (8.1%) 5 to 19 year olds had an emotional disorder (compared with 4.6% with a behavioural disorder, 1.6% with a hyperactivity disorder, and 2.1% with an other disorder). It is likely that if all children in the population had participated, the proportion identified with at least one emotional disorder would have been between 7.4% and 8.8%.

Most emotional disorders were anxiety related: 7.2% of 5 to 19 year olds had an anxiety disorder⁶ while 2.1% had a depressive disorder⁷. Bipolar affective disorder was very rare, with very few cases identified in the survey sample indicating a prevalence of less than 0.1%.

Overall, emotional disorders were more common in girls (10.0%) than boys (6.2%). Prevalence also increased with age: emotional disorders were present in 4.1% of 5 to 10 year olds, 9.0% of 11 to 16 year olds, and 14.9% of 17 to 19 year olds.

The pattern of association with age was different for boys and girls. In boys, the prevalence of emotional disorder increased slightly with age; in girls the prevalence increased sharply with age. At 22.4%, the rate of emotional disorder among 17 to 19 year old girls was almost three times higher than in boys (7.9%) of the same age. (Figure 4; Table 5)

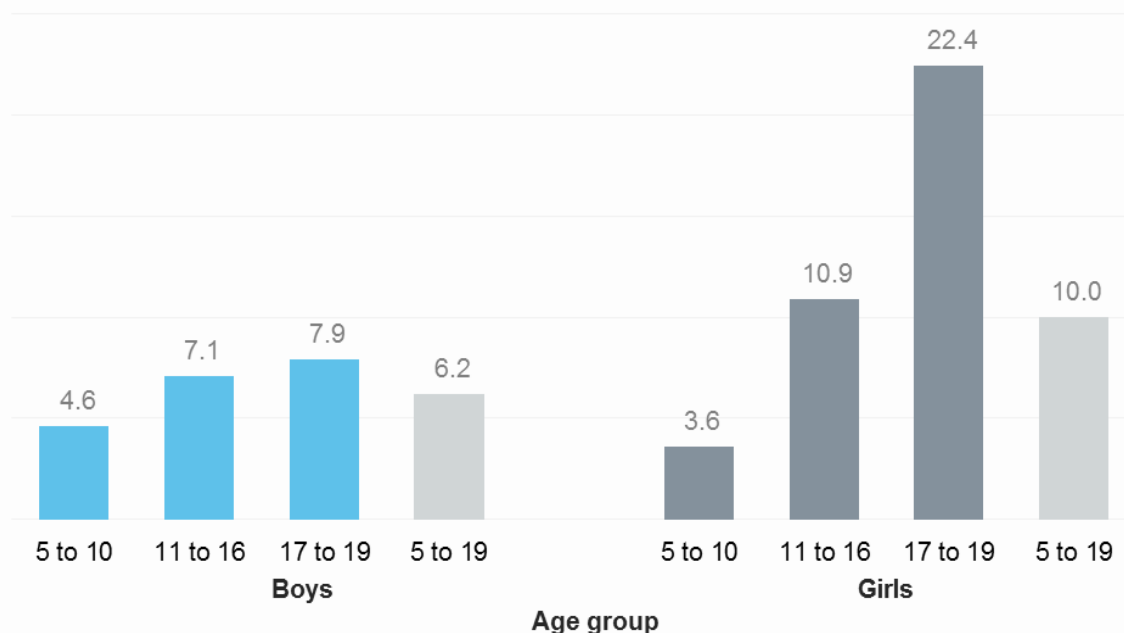
⁶ The proportion of 5 to 19 year olds with an anxiety disorder was likely to be between 6.6% and 7.9%.

⁷ The proportion of 5 to 19 year olds with a depressive disorder was likely to be between 1.7% and 2.5%.

Figure 4: Emotional disorders by age and sex, 2017

Base: 5 to 19 year olds

Per cent



Source: NHS Digital

Body Dysmorphic Disorder (BDD)

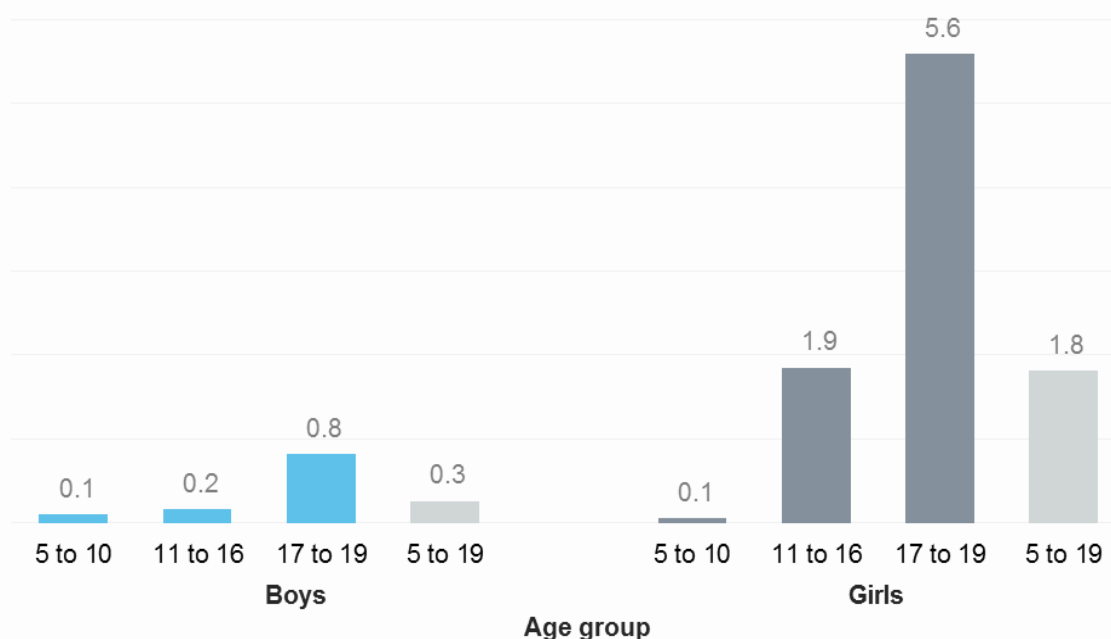
The 2017 survey was the first in the series to include BDD, a type of anxiety disorder. BDD is characterised by the obsessive idea that some aspect of one's body part or appearance is severely flawed and warrants exceptional measures to hide or fix.

The overall prevalence of BDD in 5 to 19 year olds was estimated at 1.0%, and is likely to be between 0.8% and 1.3% in the population. It was most prevalent in girls aged 11 to 16 (1.9%) and 17 to 19 (5.6%). (Figure 5; Table 5)

Figure 5: Body dysmorphic disorder by age and sex, 2017

Base: 5 to 19 year olds

Per cent



Source: NHS Digital

Trends in emotional disorders in 5 to 15 year olds, 1999-2017

Rates of emotional disorder in 5 to 15 year olds were stable between 1999 (4.3%)⁸ and 2004 (3.9%)⁹, but increased by 2017 (5.8%).¹⁰ The overall rate of any emotional disorder in 2017 was higher than that in 1999 and 2004.

The higher rate of emotional disorder in 2017 was evident in both boys (4.2% in 1999, 3.3% in 2004, 5.6% in 2017) and girls (4.4% in 1999, 4.5% in 2004, 6.1% in 2017). (Figure 6; Table 1)

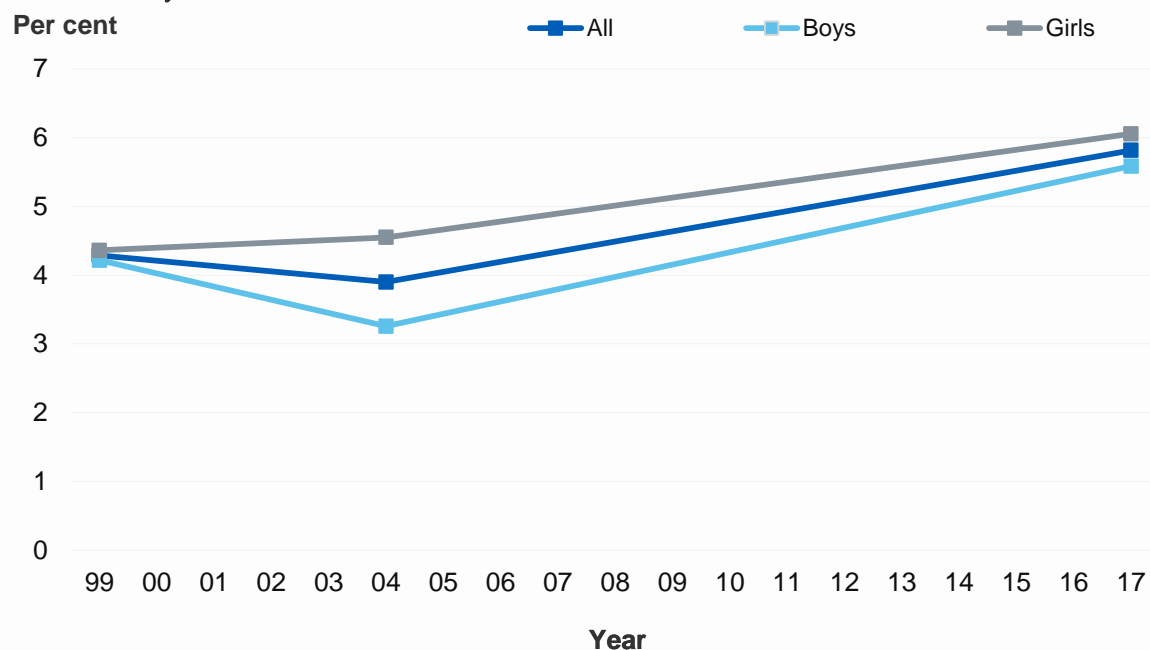
⁸ The emotional disorder rate in 5 to 15 year olds in 1999 was likely to be between 3.8% and 4.8%.

⁹ The emotional disorder rate in 5 to 15 year olds in 2004 was likely to be between 3.3% and 4.4%.

¹⁰ The emotional disorder rate in 5 to 15 year olds in 2017 was likely to be between 5.2% and 6.4%.

Figure 6: Prevalence of emotional disorders by sex, 1999, 2004, 2017

Base: 5-15 year olds



Source: NHS Digital

Further information

See the Emotional Disorders topic report for information about different types of emotional disorder and the characteristics of children and young people with an emotional disorder.

Behavioural disorders

Behavioural (or 'conduct') disorders are generally only diagnosed in childhood. They are characterised by repetitive and persistent patterns of disruptive and violent behaviour, in which the rights of others and social norms or rules are violated (Pisano et al., 2017). Diagnosis with a behavioural disorder in childhood predicts development of antisocial personality disorder, substance-related disorders, increased rates of drug use, mood and anxiety disorders, and higher accident rates (Theule et al., 2016). Behavioural disorders are often comorbid with hyperactivity diagnoses (Loeber et al., 2000). For examination of comorbidity, see the Multiple Conditions and Wellbeing topic report.

Prevalence of behavioural disorders in 2017, by age and sex

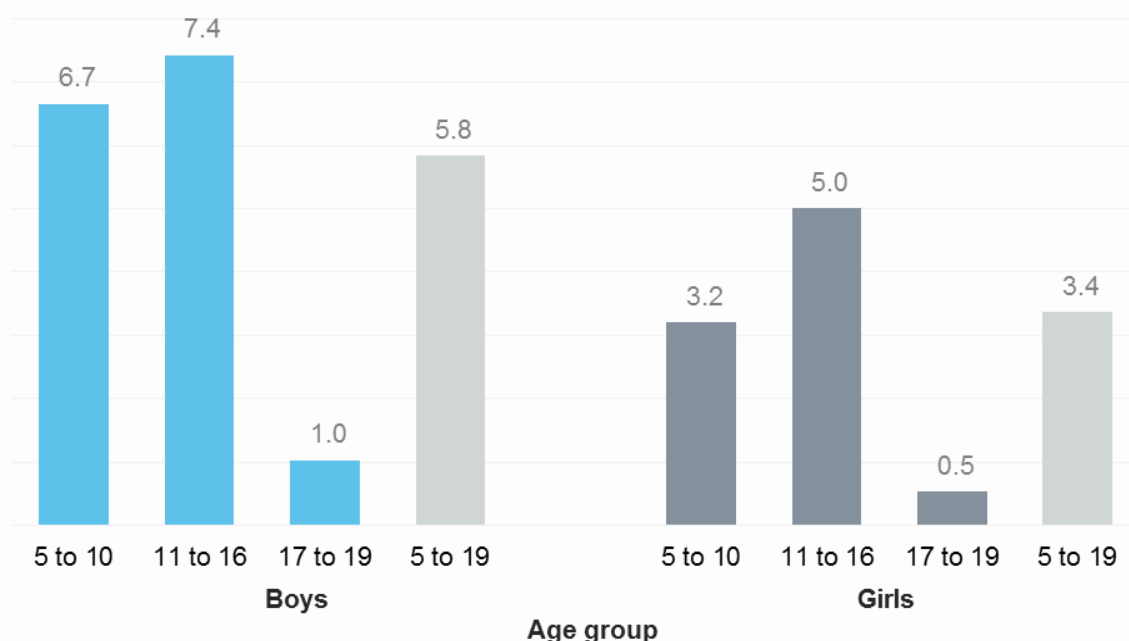
About one in twenty (4.6%) 5 to 19 year olds had a behavioural disorder. It is likely that if all children in the population had participated, the proportion identified with a behavioural disorder would have been between 4.1% and 5.2%. Oppositional defiant disorder (ODD) was the most common sub-type, estimated at 2.9%. The proportion of children with ODD is likely to be between 2.5% and 3.3%.

Boys (5.8%) were more likely than girls (3.4%) to have a behavioural disorder. Rates also varied by age group, and were highest in 11 to 16 year olds (6.2%) and lowest among those aged 17 to 19 (0.8%). The pattern of association between behavioural disorders and age was similar for boys and girls. (Figure 7; Table 5)

Figure 7: Behavioural disorders by age and sex, 2017

Base: 5 to 19 year olds

Per cent



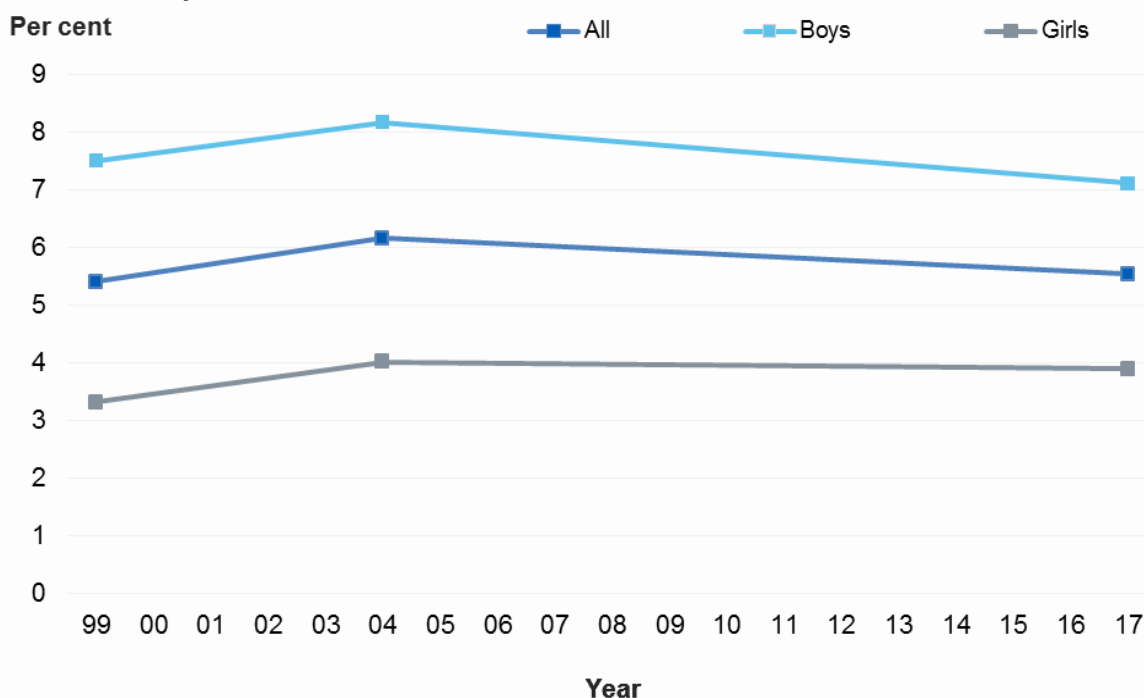
Source: NHS Digital

Trends in behavioural disorders in 5 to 15 year olds, 1999-2017

The prevalence of behavioural disorders in 5 to 15 year olds remained stable over time (5.4%¹¹ in 1999, 6.2%¹² in 2004, 5.5%¹³ in 2017). This stability was broadly evident both in boys and girls; and in 5 to 10 year olds and 11 to 15 year olds. (Figure 8; Table 1)

Figure 8: Prevalence of behavioural disorders by sex, 1999, 2004, 2017

Base: 5 to 15 year olds



Source: NHS Digital

Further information

As in earlier surveys, different sub-types of behavioural disorder were assessed in 2017.

See the Behavioural Disorders topic report for information about different types of behavioural disorder and the characteristics of children and young people with a behavioural disorder.

¹¹ The behavioural disorder rate in 5 to 15 year olds in 1999 was likely to be between 4.9% and 6.0%.

¹² The behavioural disorder rate in 5 to 15 year olds in 2004 was likely to be between 5.5% and 6.9%.

¹³ The behavioural disorder rate in 5 to 15 year olds in 2017 was likely to be between 4.9% and 6.2%.

Hyperactivity disorders

Hyperactivity disorders start in childhood and are characterised by developmentally inappropriate patterns of inattention, impulsivity, and hyperactivity. Children with hyperactivity disorders may find it hard to sit still, act without thinking first, and fail to finish things that they start. While most children behave like this sometimes, for those with hyperactivity disorders these symptoms are marked, persistent and cause problems in more than one setting, such as at school, at home and in social situations.

Prevalence of hyperactivity disorders in 2017, by age and sex

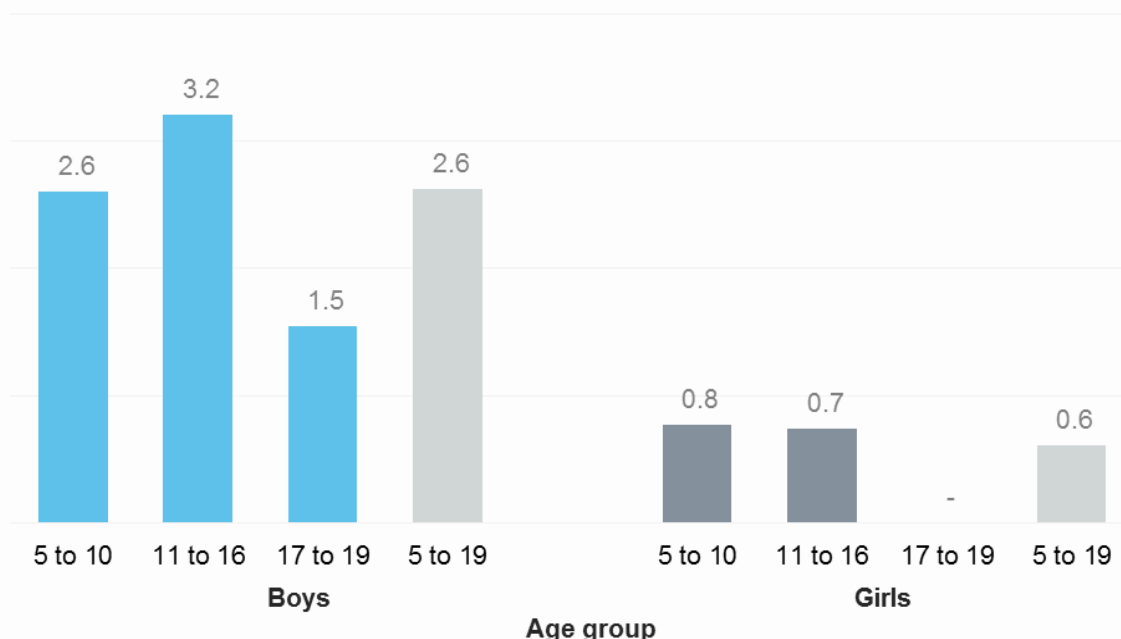
About one in sixty (1.6%) 5 to 19 year olds had a hyperactivity disorder. It is likely that if all children in the population had participated, the proportion identified with a hyperactivity disorder would have been between 1.4% and 1.9%.

The presence of hyperactivity disorder was more common in boys (2.6%) than girls (0.6%). While rates appeared to be lower in those aged 17 to 19, associations with age did not meet statistical significance. (Figure 9; Table 5)

Figure 9: Hyperactivity disorders by age and sex, 2017

Base: 5 to 19 year olds

Per cent



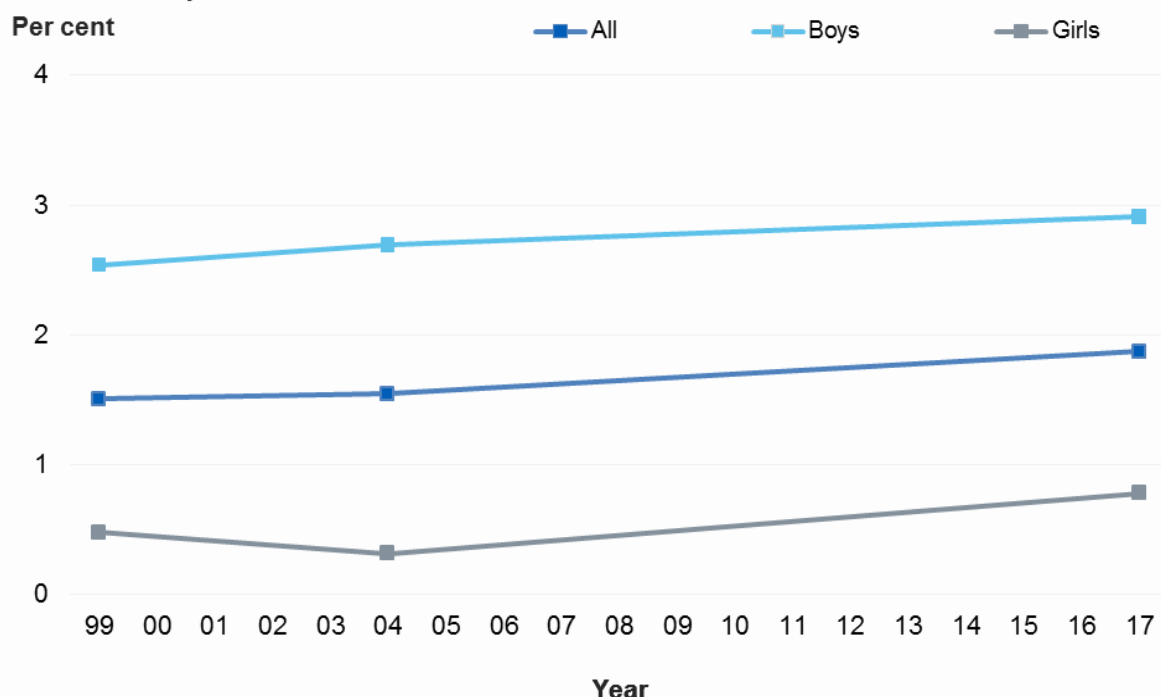
Source: NHS Digital

Trends in hyperactivity disorders in 5 to 15 year olds, 1999-2017

The prevalence of hyperactivity disorder has remained stable over time, at 1.5% in 1999¹⁴ and 2004¹⁵, and 1.9% in 2017¹⁶. (Figure 10; Table 1)

Figure 10: Prevalence of hyperactivity disorders by sex, 1999, 2004, 2017

Base: 5 to 15 year olds



Source: NHS Digital

Further information

See the Hyperactivity Disorders topic report for information about different types of hyperactivity disorder and the characteristics of children and young people with a hyperactivity disorder.

¹⁴ The hyperactivity disorder rate in 5 to 15 year olds in 1999 was likely to be between 1.3% and 1.8%.

¹⁵ The hyperactivity disorder rate in 5 to 15 year olds in 2004 was likely to be between 1.2% and 1.9%.

¹⁶ The hyperactivity disorder rate in 5 to 15 year olds in 2017 was likely to be between 1.5% and 2.2%.

Other less common disorders

The other less common disorders assessed on the survey include autism spectrum disorder (ASD), eating disorders, and other types of disorder, including tics. The survey sample was too small to examine some of these other disorders each in detail. For this reason, they were grouped together for the purposes of the current analyses.

ASD include a number of disorders characterised by severe impairment in social interaction, communication, and the presence of stereotyped behaviours, interests, and activities. Symptoms include: language problems; difficulty relating to other people; unusual forms of play; difficulty with changes in routine, and repetitive movements or behaviour patterns.

Eating disorders are characterised by disturbances in eating behaviour, appetite or food intake. They include anorexia nervosa, bulimia nervosa, and binge-eating. They usually start in the teenage years. Eating disorders can cause heart and kidney problems and even death.

Tics are fast, repetitive muscle movements that result in sudden and difficult to control body jolts or sounds. Partial voluntary control is temporarily possible at the cost of increasing discomfort and tension. The combination of motor and vocal tics that have persisted more than a year are a key symptom of Tourette's syndrome.

Prevalence of other less common disorders in 2017, by age and sex

About one in fifty (2.1%) 5 to 19 year olds was identified as having another type of disorder such as ASD, eating disorder, or tic disorder. It is likely that if all children in the population had participated, the proportion identified with at least one less common disorder would have been between 1.8% and 2.5%.

Overall, the rate was higher in boys (2.6%) than girls (1.6%), and similar across all age-groups (2.2% of 5 to 10 year olds and 11 to 16 year olds, and 1.8% of 17 to 19 year olds).

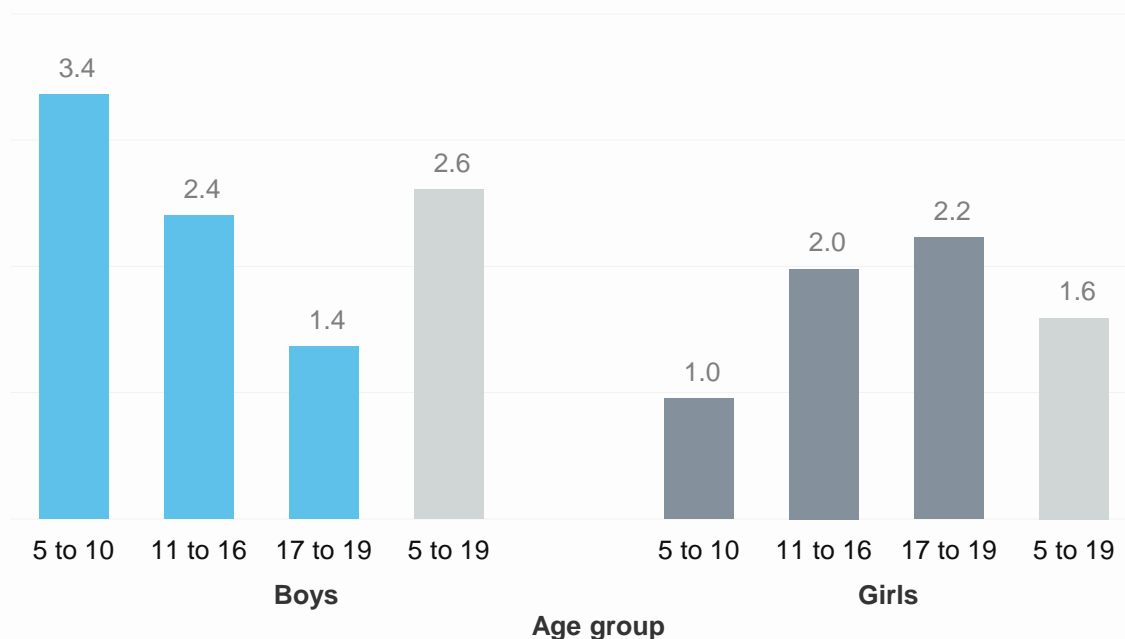
With a prevalence of 1.2%, ASD was the most frequently identified other disorder; 0.4% of 5 to 19 year olds had an eating disorder, and 0.8% had tics or another less common disorder. It is likely that if all children in the population had participated, the proportion identified with ASD would have been between 0.9% and 1.4%; the proportion with eating disorder would be between 0.2% and 0.6%; and the proportion with tics or another less common disorder would have been 0.6% and 1.1%.

The different disorders included in this 'other' group have distinct profiles. ASD was more prevalent in boys (1.9%) than girls (0.4%). While eating disorders were more common in girls (0.7%) than boys (0.1%); and in older age groups than younger ones (0.1% of 5 to 10 year olds, 0.6% of 11 to 16 year olds, 0.8% of 17 to 19 year olds). (Figure 11; Table 5)

Figure 11: Other less common disorders by age and sex, 2017

Base: 5 to 19 year olds

Per cent



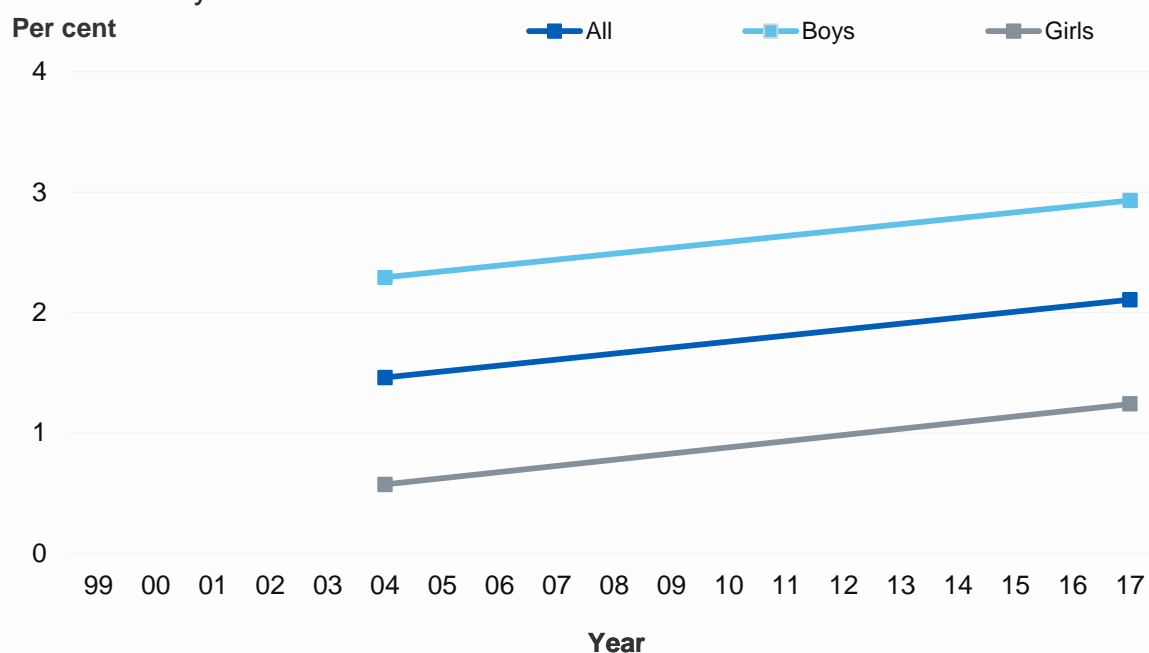
Source: NHS Digital

Trends in other less common disorders in 5 to 15 year olds, 2004-2017

Given the expected low prevalence, these less common disorders were not asked about in detail in the 1999 survey. As a result, comparable rates of ASD, eating and other less common disorders can only be compared for 2004 (1.5%) and 2017 (2.1%). (Figure 12; Table 1)

Figure 12: Prevalence of other less common disorders by sex, 2004, 2017

Base: 5 to 15 year olds



Source: NHS Digital

The prevalence of ASD in 5 to 15 year olds remained stable between 2004 (1.0%)¹⁷ and 2017 (1.3%)¹⁸.

Eating disorder rates also did not significantly change between 2004¹⁹ and 2017²⁰, although the survey sample was too small to reliably detect change in a low prevalence condition like eating disorder.

Further information

See the Autism Spectrum, Eating and Other Less Common Disorders topic report for information about the other types of disorder covered and the characteristics of children and young people with other types of disorder.

¹⁷ The proportion of 5 to 15 year olds with ASD in 2004 was likely to be between 0.7% and 1.3%.

¹⁸ The proportion of 5 to 15 year olds with ASD in 2017 was likely to be between 1.0% and 1.7%

¹⁹ The proportion of 5 to 15 year olds with an eating disorder in 2004 was likely to be between 0.0% and 0.2%.

²⁰ The proportion of 5 to 15 year olds with an eating disorder in 2017 was likely to be between 0.1% and 0.4%.

Children and young people with a disorder

The prevalence of having a mental disorder was examined by a range of different demographic, socioeconomic, relationship, and health-related characteristics, to produce a profile of children and young people most likely to experience a disorder. This drew on data for 5 to 19 year olds in the 2017 survey.

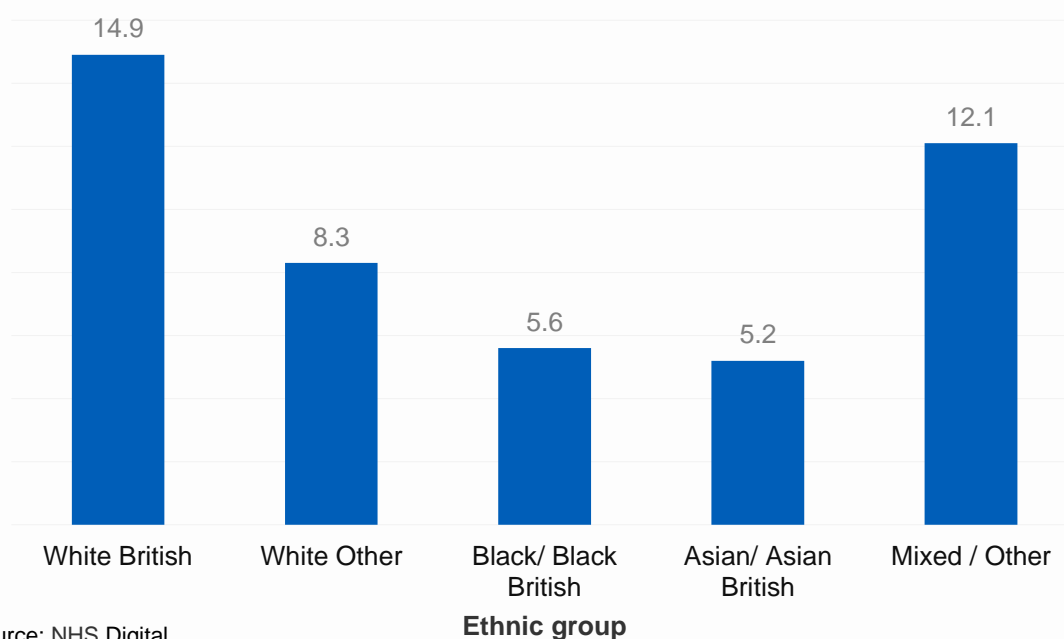
Any disorder by ethnic group

The likelihood of having a mental disorder varied between children and young people of different ethnic groups. Rates were highest among those in the White British group (14.9%) and lowest among those in the Black / Black British (5.6%) and Asian / Asian British (5.2%) groups. This pattern of association was similar for boys and girls. (Figure 13; Table 6)

Figure 13: Any mental disorder by ethnic group, 2017

Base: 5 to 19 year olds

Per cent

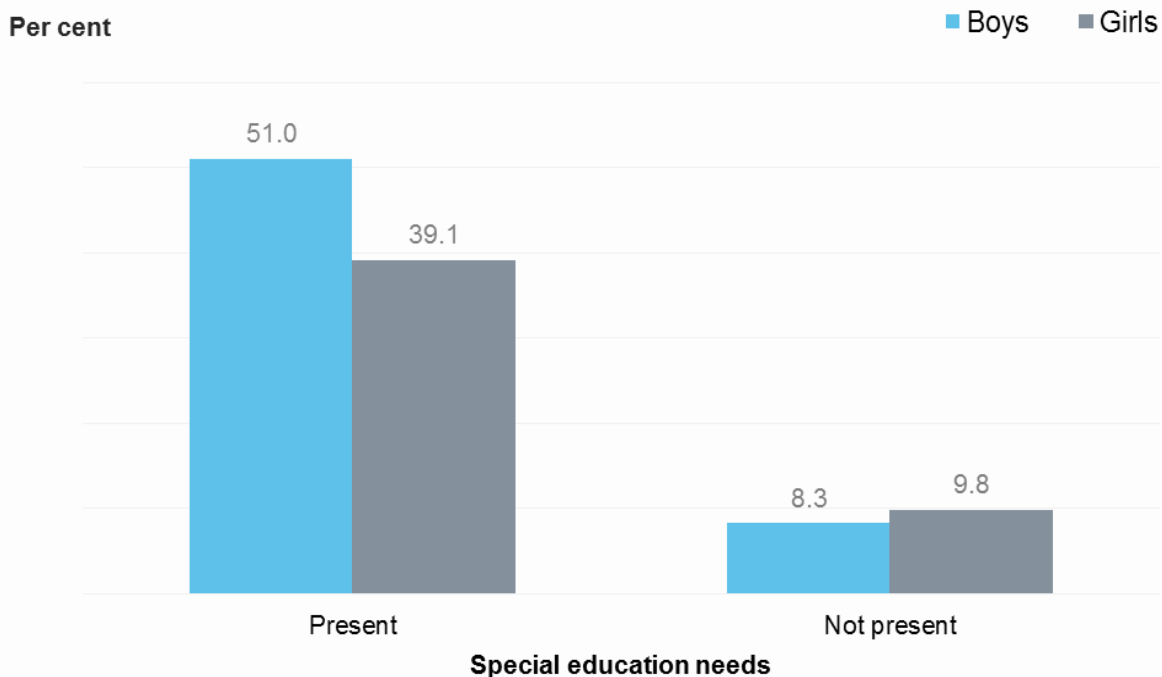


Any disorder by special educational needs

Children with recognised special educational needs were more likely to have a mental disorder (47.1%) than those without special educational needs (9.0%). The pattern of association was stronger in boys (51.0% compared with 8.3%) than girls (39.1% compared with 9.8%). (Figure 14; Table 7)

Figure 14: Any mental disorder by whether the child has special education needs and sex, 2017

Base: 5 to 19 year olds



Source: NHS Digital

The kinds of disorders that can make it harder to cope in a school environment, like ASD, hyperactivity disorder, and behavioural disorder, tend to be more common in boys. It should be noted that the same condition might have been counted both as the special educational need and as the mental disorder present, potentially explaining much of the association.

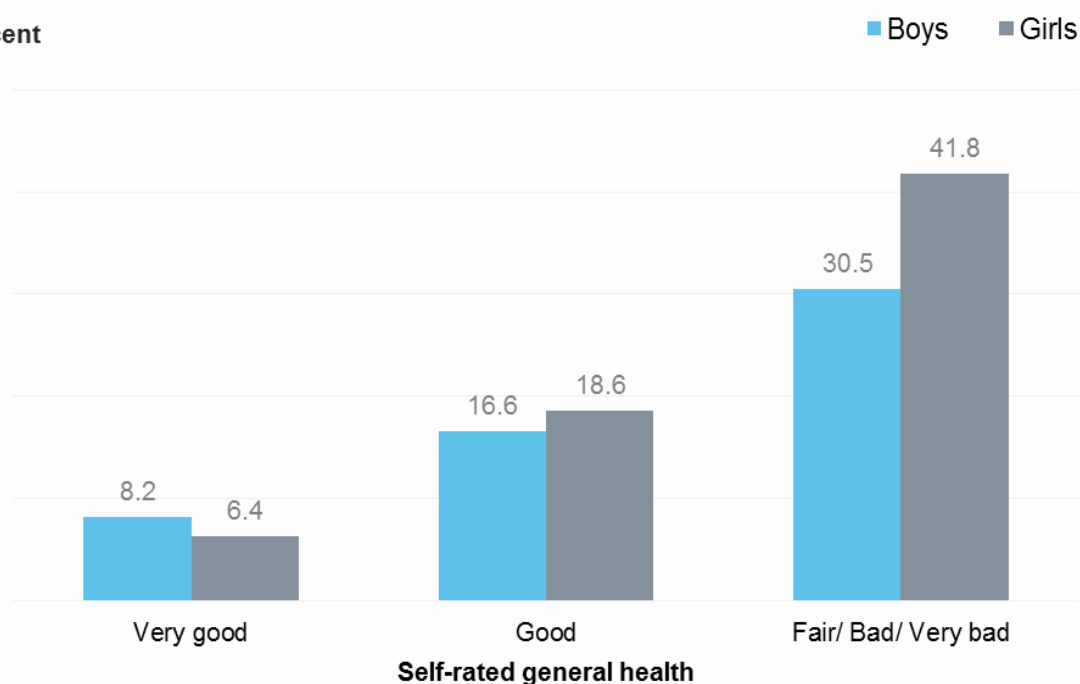
Any disorder by child's general health

There was a clear association between how children's general health was rated and whether they had a mental disorder. 35.7% of children whose general health was rated as fair, bad or very bad had a mental disorder, compared with 7.3% of children whose general health was rated as very good. The pattern of association differed by sex: the strength of association between general health and presence of mental disorder was stronger in girls than in boys. (Figure 15; Table 8)

Figure 15: Any mental disorder by general health and sex, 2017

Base: 5 to 19 year olds

Per cent



Source: NHS Digital

It should be noted that when children, young people and their parents assessed general health they are likely to have considered both mental and physical health.

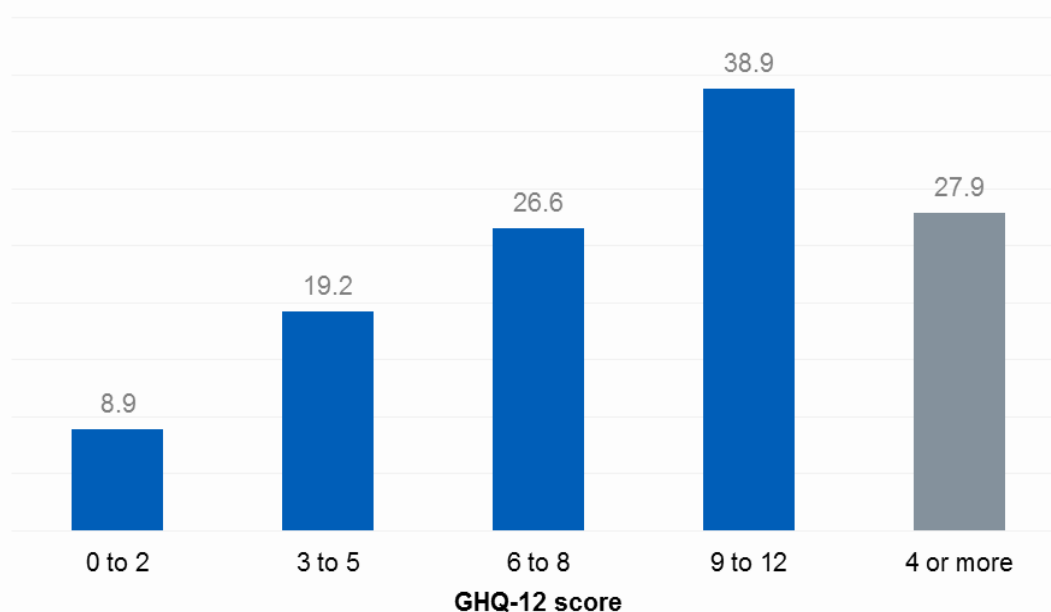
Any disorder by parent's mental health

Parent's mental health was associated with the mental health of their child. The mental health of the interviewed parent or guardian (usually the mother), was assessed using the GHQ-12. Scores range from 0 (no psychological distress) to 12 (severe psychological distress). A score of 4 or more is indicative of the presence of a common mental disorder like anxiety or depression. Increases in symptoms of mental disorder in parents were linked with higher rates of mental disorder in children. This pattern of association was similar for boys and girls. (Figure 16; Table 9)

Figure 16: Any mental disorder by parent's mental health, 2017

Base: 5 to 19 year olds

Per cent



Source: NHS Digital

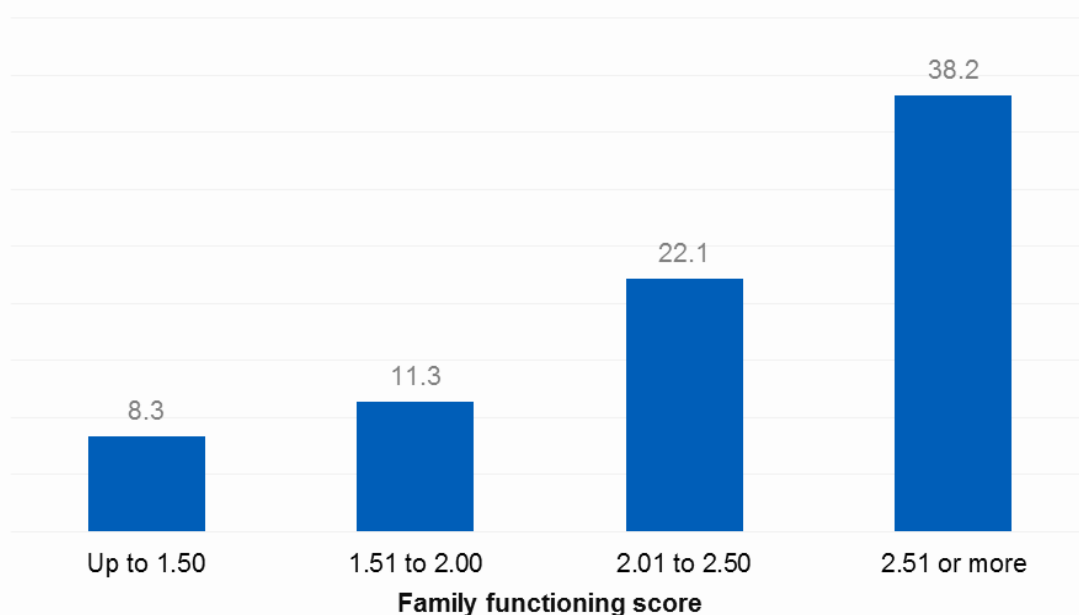
Any disorder by family functioning

Family functioning was clearly associated with the presence of mental disorder in children and young people. Over a third (38.2%) of those living in households identified with the least healthy family functioning had a mental disorder, compared with less than one in ten (8.3%) of those living in households with the healthiest family functioning. (Figure 17; Table 10)

Figure 17: Any mental disorder by family functioning, 2017

Base: 5 to 19 year olds

Per cent



Source: NHS Digital

Family functioning was measured using the General Functioning Scale of the McMaster Family Activity Device. It comprises 12 statements that parents rate on a four point scale. A score was derived, with scores above 2 considered to indicate 'unhealthy' family functioning.

As a cross-sectional survey, these associations can not explain causality. While problems with family functioning or poor parental health may contribute to the onset of mental disorder, the presence of mental disorder could also lead to problems with family functioning and a deterioration in parental mental health.

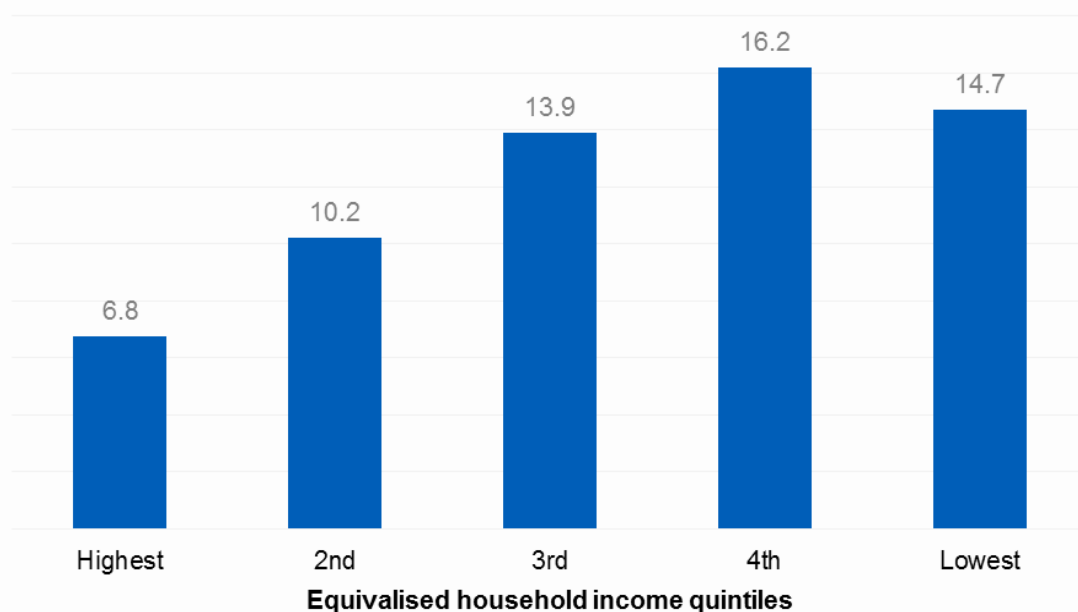
Any disorder by household income

Children and young people living in households with the lowest levels of equivalised household income were about twice as likely as those living in the highest income quintile to have a disorder.²¹ This pattern was evident in both boys and girls. (Figure 18; Table 11).

Figure 18: Any mental disorder by equalised household income, 2017

Base: 5 to 19 year olds

Per cent



Source: NHS Digital

²¹ Although the rate for the fourth income quintile appears to be higher than that for the fifth (lowest) quintile, this was not significantly different.

Any disorder by benefits

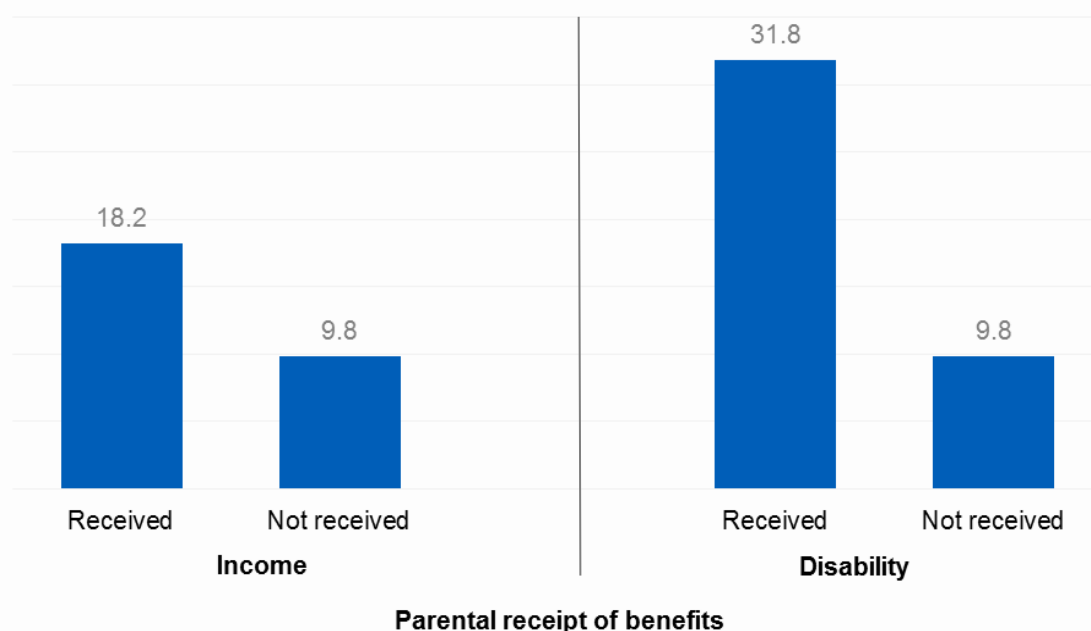
Rates of mental disorder were higher in children living in a household where a parent was in receipt of welfare benefits related to low-income (18.2%) or to disability (31.8%), compared with households that did not receive these benefits (9.8%).

For income-related benefits this pattern was similar for boys and girls. For disability-related benefits, the association was stronger in boys (36.1%, compared with 9.7%) than girls (26.7%, compared with 9.9%). (Figure 19; Table 12)

Figure 19: Any disorder by parental receipt of low-income benefits or disability-related benefits, 2017

Base: 5 to 19 year olds

Per cent



Source: NHS Digital

Any disorder by neighbourhood deprivation

There was no significant association between neighbourhood-level deprivation (as measured using quintiled IMD scores) and the likelihood of mental disorder in children and young people. (Table 13)

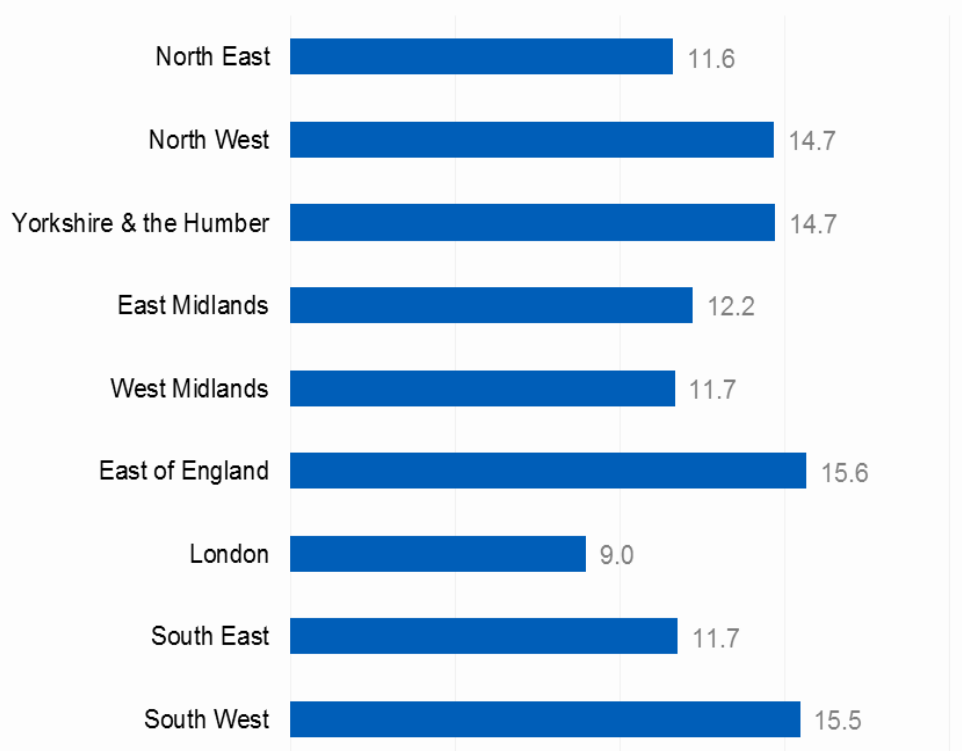
Any disorder by region

Rates of mental disorder varied by region. While there was no discernible trend across the country, rates were clearly lowest in London (9.0%). The pattern of association between disorder and region did not differ between girls and boys. (Figure 20; Table 14)

Figure 20: Any disorder by region, 2017

Base: 5 to 19 year olds

Region



Source: NHS Digital

Per cent

Further information

For further information about the measures used see the Methods and Definitions Section and the Survey Design and Methods Report.

Discussion

Child mental health has become a priority for policy and practice (DHSC and DoE, 2017), with widespread concern that rates are increasing (*The Guardian*, 2018). This is the only survey series in the UK to assess mental disorders using standardised diagnostic assessment in a general population sample of children. The long-awaited 2017 survey updates our understanding of child mental health in England in several key ways.

It finds that about one in nine 5 to 15 year olds are affected by a mental disorder to a degree likely to impact on their day to day lives or cause them significant distress.

It also confirms that, overall, rates have increased. In the previous surveys prevalence in 5 to 15 year olds was one in ten, rather than the current rate of one in nine. The scale of the overall increase may be less pronounced than some have predicted but it is statistically significant.

The survey series is distinctive because it examines different types of disorder. While young people have become more likely to experience emotional disorders, the prevalence of behavioural, hyperactivity, and most other types of disorder have remained broadly stable. There are even indications that rates of behavioural disorder have fallen in boys aged 11 to 15.

This is one of the only surveys in the world to use to assess for autism in the community (Brugha et al., 2018). While studies that rely on administrative records and diagnosis rates in clinical practice have identified steep increases in the prevalence of autism, this survey, which provides an alternative perspective found no evidence of significant increase. This suggests that greater awareness and recognition of autism among service providers may be a factor in increasing numbers getting a diagnosis, rather than an increase in the number of children who struggle with social interaction, communication, and rigid behaviours.

Adolescence is an extended period of transition that does not stop at age 16 (Sawyer et al., 2018). This latest survey is the first in the series to assess young people up to age 19. Girls and young women between 17 and 19 have rates of emotional disorder more than twice that of any of the other demographic groups studied, and three times higher than boys their age. Other recent research has highlighted this as a potential high risk group (Lessof et al., 2016; McManus et al., 2016). This study extends our understanding of this group.

The addition of body dysmorphic disorder (BDD) to the current survey provides new insight into the prevalence and distribution of the condition, which is under consideration for inclusion in the next edition of the ICD (Veale & Matsunaga, 2014). Present in about one in twenty 17 to 19 year old girls, the disorder is not uncommon in this group. It is important to note that because BDD was introduced to the series in 2017, it has been excluded from the analyses of trends and its inclusion does not explain the overall rise in emotional disorders identified in girls.

Inequalities in the rates of mental disorder can be seen in this latest survey. Children

living in lower income households are twice as likely as those in the highest income homes to experience mental disorder, as are one child in three living with a parent who receives disability-related benefit.

The higher rate of mental disorder in White British children is consistent with previous surveys in the series (Green et al., 2005) and with other research (Murphy & Fonaghy, 2013). It should be noted that the sample included only English speakers and was underpowered to examine variation by ethnicity in detail. Even given this, the survey identified a lower rate of mental disorder for Asian/Asian British, as well as Black/Black British, children. Given differences in ethnic populations in different areas, this may be a factor in the lower rate for London as a whole.

Cross-sectional data series are crucial for understanding trends in population prevalence, but they cannot address causal direction in associations. Children with a mental disorder are more likely to live in a family that struggles to function well, and where a parent struggles with poor mental health. There will be many reasons for this, including that unhealthy family dynamics or poor parental mental health may contribute to the onset of some types of mental disorder, and also that families, and in particular parents, dealing with the needs of a child with poor mental health may struggle to cope. In either case, the findings of this report will be a valuable resource for policy makers and service providers working not only with children, but also with their families and schools.

Methods

The Mental Health of Children and Young People (MHCYP) survey was conducted with 5 to 15 year olds living in Britain in 1999 and 5 to 16 year olds living in Britain in 2004. The 1999 and 2004 surveys sampled from Child Benefit records. For the 2017 survey a stratified multistage random probability sample of 18,029 children was drawn from NHS Patient Register in October 2016. Children and young people were eligible to take part if they were aged 2 to 19, lived in England, and were registered with a GP. Children, young people and their parents were interviewed face-to-face at home using a combination of Computer Assisted Personal Interview (CAPI) and Computer Assisted Self Interview (CASI), between January and October 2017. A short paper or online questionnaire was completed by a nominated teacher for children aged 5 to 16 years old. Data collection varied with the selected child's age:

- 2 to 4 year olds: parent interview
- 5 to 10 year olds: parent interview and teacher interview
- 11 to 16 year olds: parent interview, child interview and teacher interview
- 17 to 19 year olds: young person interview and parent interview (if parent present at the same address)

Furthermore, prevalence estimates for 5 to 16 year olds were adjusted slightly upwards with a factor designed to take account of the fact that only some of this age group had data from teachers. See the Survey Design and Methods Report for detail about the calculation and application of adjustment factors.

Productive interviews (involving one or more participants in each household) were achieved for 9,117 children (1,463 2 to 4 year olds; 3,597 5 to 10 year olds; 3,121 11 to 16 year olds; 936 17 to 19 year olds), and 3,595 teachers (54% of eligible children). The survey included the detailed and comprehensive Development and Well-Being Assessment (DAWBA). This allowed the assessment of emotional, hyperactivity, behavioural and less common disorders, like autism. After interviews were complete, eleven trained clinical raters reviewed the data to reach disorder codings for each participant. Raters applied the diagnostic criteria for specific disorders set out in the tenth International Classification of Disease (ICD-10) (WHO, 1992) and the Diagnostic and Statistical Manual of Mental Disorders (DSM-5) (APA, 2013).

The 2017 survey was designed to be comparable with the 1999 and 2004 surveys. This included the continued use of the DAWBA, use of ICD-10, and consistent timing of data collection. However, some differences in design have taken place which may affect comparability with previous survey results, including that the 2017 survey:

- Sampled from the NHS Patient Register, whereas the 2004 and 1999 surveys sampled from Child Benefit records
- Included 2 to 4 and 17 to 19 year olds for the first time
- Response rate (52%) was lower than that for the previous surveys

- Covered England, while previous surveys in the series covered Britain. Analyses of 1999 and 2004 data presented in this report have been run on participants aged 5 to 15 years old living in England only to maintain comparability in trends.

The 2017 interviews and analyses are based on participants' age at 31 August 2017, with participants grouped with their peers in terms of school year.

Confidence intervals

Information about confidence intervals are presented in the text and described as the range for which a value is likely to fall within had the whole population participated in this survey rather than a sample. This range was calculated based on 95% confidence interval and indicates the range we would expect estimates to fall within nineteen times in twenty, if the study was repeated with new samples.

For further information on methodology, confidence interval and standard error information, see the Survey Design and Methods Report.

Definitions

Mental disorder

Mental disorders were identified on the survey according to the standardised diagnostic criteria in the tenth edition of the International Classification of Diseases (ICD-10). Specific mental disorders were grouped into four broad categories: emotional, behavioural, hyperactivity and other less common disorders. While some of the symptoms covered in this report may be present in many children, to count as a disorder they had to be sufficiently severe to cause distress to the child or impair their functioning (WHO, 1993).

Figure 21: Disorders included and excluded in trend measures

Any mental disorder						
Disorder categories	Emotional disorders			Hyperactivity disorders	Behavioural (or 'conduct') disorders	Other less common disorders
Disorder subgroups	Anxiety disorders	Depressive disorders	Bipolar affective disorder			
Specific disorders (included in trend measures)	Separation anxiety disorder Generalised anxiety disorder Obsessive compulsive disorder Specific phobia Social phobia Agoraphobia Panic disorder Post-traumatic stress disorder Other anxiety	Major depressive episode Other depressive episode		Hyperkinetic disorder Other hyperactivity disorder	Oppositional defiant disorder Conduct disorder confined to family Unsocialised conduct disorder Socialised conduct disorder Other conduct disorder	Autism spectrum disorder Eating disorder Tics Selective mutism Psychosis
Specific disorders (added since 1999, so excluded from trend measures)	Body dysmorphic disorder (added in 2017) ¹		Bipolar affective disorder Mania (Both added in 2004)			Attachment disorder (added in 2004) Feeding disorder Sleep disorder Eliminating disorder (all added in 2017)

¹ Body dysmorphic disorder was assessed using the Diagnostic and Statistical Manual of Mental Disorders (DSM) version 5 criteria.

Trend measures

Trends over time are based on samples, methods, and disorders that are as comparable as possible. The 1999 and 2004 samples have been reanalysed based on participants resident in England only, and the 2004 and 2017 samples are restricted to those aged 5 to 15 for these analyses. For each survey only those interviewed in English are retained. Some disorders (such as attachment disorder and body dysmorphic disorder) were only included after the 1999 survey had been completed. To ensure estimates are comparable across surveys these additional disorders were not included in the 2017 trend measures. See the Survey Design and Methods Report for details.

Emotional disorders

Emotional disorders include a range of different types of **anxiety disorder** (characterised by fear and worry), **depressive disorder** (characterised by sadness, loss of interest and energy, and low self-esteem) and a small number of cases of **mania** and **bipolar affective disorder**.

A. Anxiety disorders

Anxiety disorders are a type of emotional disorder characterised by intense and prolonged feelings of fear and distress, often accompanied by physiological symptoms (Kessler et al., 2009).

Separation anxiety disorder

The focus of the anxiety is on the fear of separation from attachment figures. Symptoms include clinging to parents, extreme and severe crying, refusal to do things that require separation, and physical illness such as headaches or vomiting. Some of these behaviours are normal among very young children, but if severe and persistent they impede the child's development and ability to cope.

Generalised anxiety disorder

Anxiety that is generalised and persistent which is not restricted to, or dominated by, any particular circumstance. Symptoms include persistent nervousness, trembling, sweating and dizziness. Symptoms must be present on most days for a period of at least six months.

Obsessive compulsive disorder (OCD)

Characterised by recurrent obsessional thoughts or compulsive acts. Obsessional thoughts are ideas, images, or impulses that enter an individual's mind again and again. Compulsive acts or rituals are behaviours that are repeated over and over. These acts are not enjoyable and they do not result in the completion of useful tasks. Instead, their function is an attempt to prevent some unlikely event, often involving harm to the individual sufferer or harm caused by the individual that they feel will occur

if they do not carry out the task. If the compulsive acts are resisted then the anxiety gets worse.

Specific phobia

Specific phobias are incapacitating fears that are restricted to highly specific objects or situations, for example heights, thunder, darkness, or certain animals. A fear becomes phobic when the severity of difficulties stops the child from being able to cope with normal everyday activities.

Agoraphobia

Fear of leaving the home or being in crowded and public places. Symptoms of agoraphobia can be physical (for example, rapid heartbeat), cognitive (for example, fear or psychological symptoms) or behavioural (for example, avoiding situations). They can occur when the young person thinks about going out, or travelling as well as in the actual situation.

Panic disorder

Characterised by recurrent attacks of severe anxiety or panic which are not restricted to a particular situation and often 'come out of the blue'. Symptoms of anxiety in this condition are intense. They start suddenly, peak in a few minutes and include the sudden onset of palpitations, chest pain, choking sensations and dizziness.

Post-traumatic stress disorder (PTSD)

A delayed response to a stressful event or situation that was exceptionally threatening or catastrophic. Typical features include reliving the event including flashbacks, nightmares and night terrors, as well as avoidance of memories or situations that trigger memories of the event with emotional numbing and hypervigilance for danger.

Other anxiety disorder

Disorders where the main symptom is anxiety that causes significant distress or prevents the child from coping, but does not meet the diagnostic criteria for any of the other specific anxiety disorders reported on. Children often exhibit some of the characteristics of more than one sub-type of anxiety disorder and are very distressed or struggling to cope.

Body dysmorphic disorder (BDD)

Preoccupation with an aspect of personal appearance which is hugely out of proportion of any actual defect, and causes significant distress or impairs social functioning. The 2017 survey was the first in the series to include body dysmorphic disorder (BDD), a type of anxiety disorder. BDD was assessed using the fifth Diagnostic Statistical Manual (DSM-5) diagnostic criteria as it is not covered by ICD-10. Its inclusion in the ICD-11 diagnostic classification system is under consideration (Veale & Matsunaga, 2014).

B. Depressive disorders

Characterised by sadness, loss of interest or pleasure, feelings of guilt or low self-worth, disturbed sleep or appetite, feelings of tiredness, and poor concentration. Depression can be long lasting, recurrent and substantially impair functioning at school and in daily life (WHO, 2017).

Major depressive episode

Characterised by persistent feelings of sadness, anxiety or feeling 'empty', loss of interest or pleasure in hobbies, difficulty concentrating, loss of appetite and decreased energy.

Other depressive episode

Depression which is not typical of a major depressive episode. Symptoms have not been present long enough or are not severe enough to be classified as a major depressive episode, but are causing significant distress or impairment.

C. Bipolar affective disorder and manic episode

Manic episodes (or 'mania') involve an upward swing of mood to one of excitement, euphoria but also irritability, combined with an increase in the quantity and speed of physical and mental activity. Bipolar affective disorders involve two or more episodes of disturbed mood and activity levels. Rarely, the affected person has repeated episodes of just mania, but more commonly experiences both manic and depressive episodes. Typically, people with this condition recover completely between episodes.

Behavioural (conduct) disorders

A group of disorders characterised by repetitive and persistent patterns of disruptive and violent behaviour in which the rights of others, and social norms or rules, are violated. The umbrella term used in ICD 10 is conduct disorders, in this report we have used the term 'behavioural disorders' to avoid confusion with the sub-types of disorder included in the survey.

Oppositional defiant disorder (ODD)

Oppositional defiant disorder (ODD) is more common among younger children, partly because of the types of behaviour involved. ODD is characterised by temper outbursts, arguing with adults, disobedience, deliberately annoying others, passing on blame, being easily annoyed, resentful, spiteful and vindictive.

Conduct disorder confined to family

In this condition, the challenging behaviour is entirely, or almost entirely, confined to the home and to interactions with members of the immediate family or household.

Unsocialised conduct disorder

A behavioural disorder characterised by the combination of persistent dissocial or aggressive behaviour with significant pervasive abnormalities in the individual's relationships with other children, such that they have no friends.

Socialised conduct disorder

Disorder involving persistent dissocial or aggressive behaviour occurring in individuals who are generally well integrated into their peer group.

Other conduct disorders

Any other type of behaviour (or 'conduct') disorder that is impairing, but does not fit the criteria for one of the other specific types reported on. Children often exhibit some of the characteristics of two or more of the sub-types of conduct disorder.

Hyperactivity disorder

These are characterised by developmentally inappropriate levels of inattention, impulsivity, and hyperactivity.

Hyperkinetic disorder

In hyperkinetic disorder, children have levels of inattention, hyperactivity and impulsivity which lead to impairment in several settings such as school/work, home life and leisure activities. Symptoms are evident by age seven years, and can be identified retrospectively.

Other hyperactivity disorders

Other hyperactivity disorders are diagnosed if a child or young person met nearly all the criteria for hyperkinetic disorder, but just miss the full diagnostic criteria and are unable to function. For example, they have display five rather than six difficulties with attention or an age of onset after the age of seven.

Less Common Disorders

A number of less common mental and neurodevelopmental conditions were also identified on the survey. These included: autism spectrum disorders (ASD), eating disorders, tic disorders, and a number of very low prevalence conditions such as psychosis, stereotypic movement disorder, selective mutism, and attachment

disorders. Feeding, sleeping, and toileting disorders were also assessed in the preschool population.

Autism spectrum conditions (ASC) and autism spectrum disorder (ASD)

These terms are both used to indicate a number of disorders characterised by severe impairment in social interaction, communication, and the presence of stereotyped behaviours, interests, and activities. 'Pervasive developmental disorder' (PDD) is used in the ICD classificatory system, but was replaced in the Diagnostic and Statistical Manual (DSM-5) with ASD, the term used most in this report. The category as used here consists mostly of ICD-10 classifications of autism and Asperger's syndrome, but also some cases of other pervasive developmental disorders. Symptoms include: language problems, difficulty relating to other people, unusual forms of play, difficulty with changes in routine, and repetitive movements or behaviour patterns.

Eating disorders

Eating disorders are characterised by disturbances in eating behaviours, appetite or food intake. They include anorexia nervosa, bulimia nervosa, and binge-eating. They usually start in the teenage years. Eating disorders can cause heart and kidney problems and even death.

Tics

Tics are fast, repetitive muscle movements that result in sudden and difficult to control body jolts or sounds. Tourette's syndrome involves vocal and motor tics that have persisted for over a year.

Other less common disorders

Psychosis involves a disturbed relationship with reality. A person who is experiencing psychosis may hear, see or feel things that are not really there or experience beliefs that are difficult to shake but are not grounded in reality. There are various different types of psychosis, including schizophrenia, which are extremely rare in children and young people.

Stereotypic movement disorder is diagnosed in children who undertake repetitive, purposeless movements that are distressing or impede functioning. This rare condition mostly occurs in children and young people who have intellectual disability or neurodevelopmental disorders such as ASC.

Selective mutism is a rare difficulty with social functioning with an onset in childhood in which a child who understands language and can speak when with family and close friends is unable to speak in almost all social situations.

Attachment disorders also involve impairing difficulty with social function that have their onset in childhood. They are believed to result from significant neglect and abuse from care-givers. Children with these disorders struggle to interact with others, displaying a range of abnormal social behaviours from inappropriate friendliness towards everyone they meet to highly withdrawn and hypervigilance. These

behaviours occur across situations and with many people and should not be confused with attachment, secure or otherwise, which describes the relationship between a child and a particular care-giver.

Neurodevelopmental disorders

Due to the base size for the hyperactivity disorders and/or less common disorder groups falling below 50 cases for some analyses, some of these disorders have been combined for some sections of this report. Practitioners often apply the term neurodevelopmental disorder to refer to the combination of hyperactivity disorders, autism spectrum disorder (ASD), tic disorder, and stereotypic disorder.

Eating disorder, selective mutism, psychosis, and attachment disorder are not considered neurodevelopmental disorders and not included in this combined category.

Analysis variables

Ethnic group

Ethnic group was self-reported directly by children and young people aged 11 or more, and by parents for children aged 10 or under.

Special educational needs

Presence of special educational needs was based on information provided by the interviewed parent for children aged 2 to 16 and for young people aged 17 to 19.

Child's general health

Young people aged 17 and over rated their own general health. For children aged 16 and under, the interviewed parent rated their child's general health.

Parental mental health

The mental health of the interviewed parent or guardian (usually the mother), was assessed using the GHQ-12. Scores range from 0 (no psychological distress) to 12 (severe psychological distress). A score of 4 or more has been used to indicate the presence of a common mental disorder.

Family functioning

Family functioning was measured using the General Functioning Scale of the McMaster Family Activity Device (FAD). It comprises 12 statements that parents rate on a four point scale. A score was derived. A score above 2 was considered to indicate 'unhealthy' family functioning.

Equivalised household income

An estimate of overall household income was established by means of a showcard, and was adjusted to reflect the number and ages of people living in the household. For further details please refer to the Survey Design and Methods Report.

Welfare benefits

A household was classified as in receipt of 'low income benefits' if any resident adult with parental responsibility for the child reported being in receipt of any of the following: Housing Benefit, Working Tax Credit, Income Support, Universal Credit (UC), Job Seekers' Allowance, or Pension Credit. Child Tax Credit did not count as the eligible income threshold for this is higher. While UC could be received for disability-related reasons this was not distinguishable in the data collected.

A household was classified as in receipt of 'disability-related benefits' if an adult with parental responsibility for the sample child received any of: Disability Living Allowance, Carer's Allowance, Employment and Support Allowance, Personal Independence Payment, Industrial Injuries Disablement Benefit, Severe Disablement Allowance, Incapacity Benefit, Armed Forces Compensation Scheme, or Attendance Allowance.

Neighbourhood deprivation

The Index of Multiple Deprivation (IMD) 2015 combines a number of indicators, chosen to cover a range of economic, social and housing issues, into a single deprivation score for each small area (or as described here neighbourhoods) in England. This allows each neighbourhood to be ranked relative to others according to their level of deprivation. In this report quintiles of IMD are used to give an area-level measure of socioeconomic status, as opposed to a household-level measure. For further details about IMD please refer to the Survey Design and Methods Report.

Region

The regional measure in this topic report was based on the former [Government Office Regions](#). They were identified as being the most local level of geography possible for statistical analysis due to the survey design.

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