Mental Health of Children and Young People in England, 2017

Emotional disorders

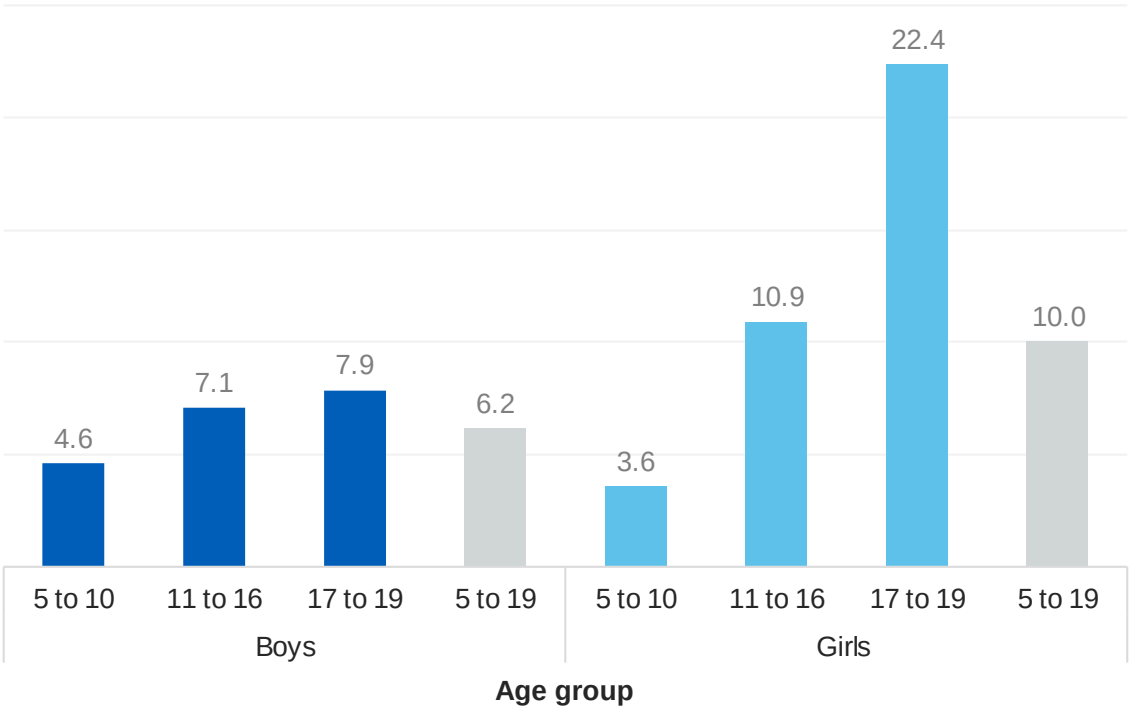
This topic report examines the prevalence of emotional disorders in 5 to 19 year olds in England in 2017 and the characteristics of children and young people with an emotional disorder. The Development and Well-Being Assessment (DAWBA) tool was used to assess for a range of emotional disorders.

About one in twelve (8.1%) 5 to 19 year olds had an emotional disorder. Emotional disorders were more common in girls than boys and rates increased with age.

Any emotional disorder by age and sex, 2017

Base: 5 to 19 year olds

Per cent



Source: NHS Digital

Authors: Tim Vizard, Nicola Pearce, Jodie Davis, Katharine Sadler, Tamsin Ford, Anna Goodman, Robert Goodman, Sally McManus

Responsible Statistician: Dan Collinson, Community and Mental Health

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Main findings

Prevalence of emotional disorders

- In 2017, about one in twelve (8.1%) children and young people had an emotional disorder such as anxiety or depression. Rates of emotional disorders increased with age and were more common in girls than boys. One in four (22.4%) girls aged 17 to 19 years old had an emotional disorder

Characteristics of children and young people with a disorder

- **Demographics:** In addition to age and sex, rates of emotional disorders also varied by ethnic group. Emotional disorders were most common in children of White British (9.1%) and Mixed/Other (8.9%) ethnic backgrounds

- **Health:** Children with a special educational need had higher rates of emotional disorders (20.3%) as did children whose general health was rated as fair, bad or very bad (25.4%). However in both instances, the emotional disorder may have been the special educational need or a factor impacting the child's general health

- **Family:** Rates of emotional disorders were higher in children in households with less healthy family functioning (13.8%) and in children of parents who showed signs of a common mental disorder (17.5%). These associations cannot explain causality and it is possible that the presence of an emotional disorder in children may lead to problems with family functioning or a deterioration in parental mental health

- **Socioeconomics:** Emotional disorders were more prevalent among children living in households with the lowest household income (9.0%) compared to children living in households with the highest household income (4.1%). Additionally, children who lived with a parent in receipt of low income or disability benefits had higher rates of emotional disorders (10.3% and 16.8% respectively) when compared to other children

Contents

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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. A profile of children and young people who were assessed as having emotional disorders is presented.

Acknowledgements

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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 topic report examines the:

- Prevalence of emotional disorders in 5 to 19 year olds, by age and sex
- Health, social, and economic characteristics of children and young people with an emotional disorder, compared to those without

Information on the prevalence of emotional disorders for the preschool population (2 to 4 year olds) can be found in the Preschool Children topic report.

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

- Trends and characteristics
- Behavioural disorders
- Hyperactivity disorders
- Autism spectrum, eating and other less common disorders
- Predictors of mental disorders (to be released at a later date)
- 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 Survey Design and Methods Report. All reports and associated tables are available at: https://digital.nhs.uk/pubs/mhcypsurvey17.

Background

Emotional disorders are among the most prevalent psychiatric disorders experienced in childhood and adolescence (Merikangas et al., 2009). They include a range of anxiety and depressive disorders that manifest themselves in fear, sadness, and low self-esteem. While some of these symptoms may be present in many children, to count as an emotional disorder they have to be sufficiently severe to cause distress to the child or impair their functioning (WHO, 1993).

Anxiety disorders that begin in childhood and adolescence frequently persist into later life (Ginsburg et al., 2018) and can negatively impact quality of life (Mendlowicz & Stein, 2000). Similarly, childhood depression can threaten growth and development, school and social functioning (Bhatia & Bhatia, 2007), and has been shown to reoccur in adulthood (Kessler et al., 2001). Depression has also been identified as the third largest contributor to the global burden of disease (WHO, 2008).

In addition to the ICD-10 anxiety and depressive disorders examined in this report, body dysmorphic disorder (BDD) has also been included. BDD is recognised in the American Diagnostic and Statistical Manual (DSM-5) (American Psychiatric Association, 2013), and has been proposed for inclusion in ICD-11 (Veale and Matsunaga, 2014).

This report presents emotional disorders[1] in three categories:

- **Anxiety disorders**: characterised by feelings of anxiety and fear, with symptoms ranging from mild to severe (WHO, 2017). The anxiety disorders captured in this survey were:
    - Separation anxiety
    - Generalised anxiety disorder
    - Obsessive compulsive disorder
    - Specific phobia
    - Social phobia
    - Agoraphobia
    - Panic disorder
    - Post-traumatic stress disorder
    - Other anxiety disorders
    - Body dysmorphic disorder
- **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). The depressive disorders captured in this survey were:
    - Major depressive episode (comprising of mild, moderate, and severe depressive episodes as defined by ICD-10)
    - Other depressive episode

[1] See the Definitions section of this report for more information on the specific emotional disorders.

- **Bipolar affective disorder /manic episode:** characterised by intense mood swings, where mood and activity levels are significantly disturbed (WHO, 1992). For example, children may sometimes feel very happy or energetic compared to other children their age (mania/manic episode). At other times, a child may feel sad or less active than usual (depressive episode) (NIMH, 2015)

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 also used, although we are sensitive to the negative connotations this word can have. It is used because the survey did not just screen for general mental health problems, but applied operationalised diagnostic criteria for specific disorders (see the Survey Design and Methods Report for detail).

For a child to be classified with an emotional disorder, they had to meet the ICD-10 diagnostic criteria for emotional disorders, which covers anxiety disorders, depressive disorders and mania/bipolar affective disorder. Children with mania/bipolar affective disorder were counted as having an emotional disorder, however these disorders are not examined in isolation in this topic report due to the small proportion of children identified (less than 0.1%). Children meeting the DSM-5 diagnostic criteria for body dysmorphic disorder were also counted as having an emotional disorder.

Prevalence of emotional disorders

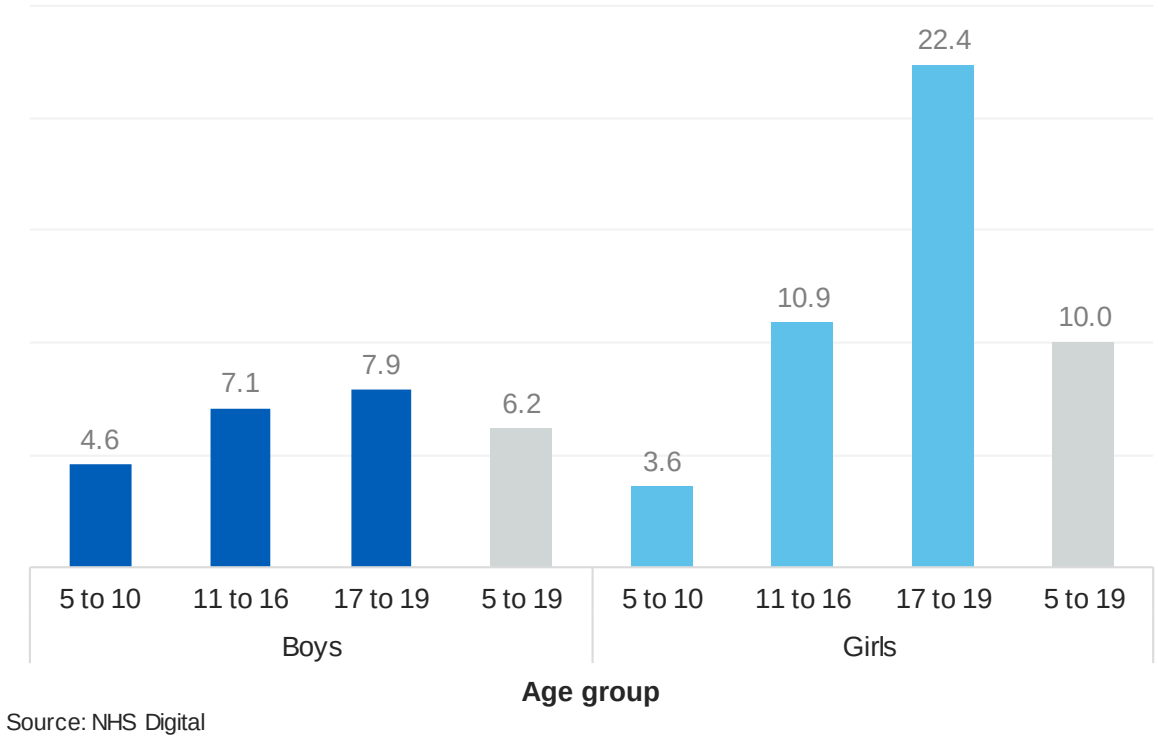
Emotional disorders by age and sex

About one in twelve (8.1%) 5 to 19 year olds were assessed as having an emotional 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 an emotional disorder would have been between 7.4% and 8.8%. 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[2].

Rates of emotional disorders were highest for those aged 17 to 19 (14.9%), compared to 9.0% of 11 to 16 year olds and 4.1% of 5 to 10 year olds. The emotional disorder rate for boys and girls was similar among younger children, however the difference between the sexes increased with age. The rate of emotional disorders in boys increased from 4.6% of 5 to 10 year olds to 7.9% of 17 to 19 year olds. In girls, the rates of emotional disorders increased from 3.6% of 5 to 10 year olds to 22.4% of 17 to 19 year olds. (Figure 1; Table 1)

Figure 1: Any emotional disorder by age and sex, 2017

Base: 5 to 19 year olds



Source: NHS Digital

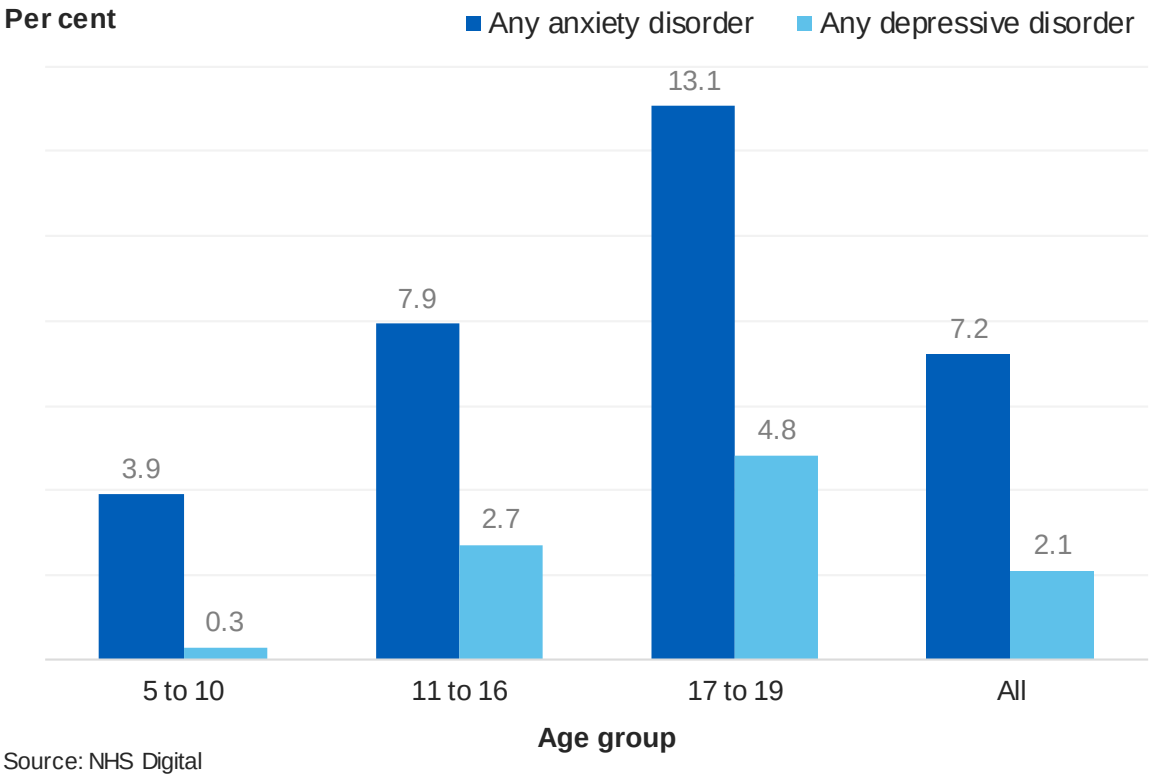
Anxiety disorders were more common than depressive disorders (7.2% compared to 2.1%). The rates of both anxiety and depressive disorders increased as age increased. Of children aged 17 to 19, about one in eight had an anxiety disorder

[2] See the Methods section of this report and the Survey Design and Methods Report for further confidence interval information for the estimates presented in this report.

(13.1%) and about one in twenty children aged 17 to 19 had a depressive disorder (4.8%). (Figure 2; Table 1)

Figure 2: Anxiety and depressive disorders by age, 2017

Base: 5 to 19 year olds



Source: NHS Digital

Specific emotional disorders

This survey also examined the prevalence rates of specific anxiety and depressive disorders[3]. Disorders with lower prevalence rates have a higher level of uncertainty around the estimates and so should be treated with caution. Further information on the precision of estimates, including confidence intervals and relative standard errors can be found in the Survey Design and Methods Report.

Figure 3a presents the rates of 5 to 19 year olds who were experiencing these specific conditions, with figure 3b showing rates of specific conditions by sex. Information on differences by age groups can be found in Table 1.

Body dysmorphic disorder (BDD)

This report provides the first estimates of BDD in this survey series. It was present in 1.0% of children and affected 1.8% of girls compared to 0.3% of boys. Rates were highest in girls aged 17 to 19 years old, with one in eighteen (5.6%) experiencing BDD.

[3] See the Definitions section for more information on each disorder.

Separation anxiety

Separation anxiety was prevalent in 0.7% of 5 to 19 year olds, with similar rates of separation anxiety found in boys and girls.

Generalised anxiety disorder and panic disorder

Generalised anxiety disorder and panic disorder were the two most common emotional disorders in children (1.5% and 1.1% respectively), except for other anxiety disorders (1.6%). Panic disorder was more common in girls (1.7%) than boys (0.5%), however there was no noticeable difference in the rates of generalised anxiety between boys and girls.

Obsessive compulsive disorder (OCD)

OCD was identified in 0.4% of children aged 5 to 19, with similar rates in boys and girls.

Phobias

Specific phobias were experienced by 0.8% of 5 to 19 year olds. Rates were similar for boys and girls (0.7% and 0.9% respectively).

Social phobia was found in 0.8% of 5 to 19 year olds, whilst agoraphobia was experienced by 0.5% of children. The presence of social phobia and agoraphobia was more common in girls than boys.

Post-traumatic stress disorder (PTSD)

PTSD was present in 0.6% of 5 to 19 year olds, with a higher prevalence rate in girls (0.9%) than boys (0.3%).

Other anxiety disorders

Symptoms were classified under other anxiety disorders if they were not specific enough or had not presented frequently enough to be classified under a specific type of anxiety disorder. Other anxiety disorders were present in 1.6% of children, with rates similar in boys and girls.

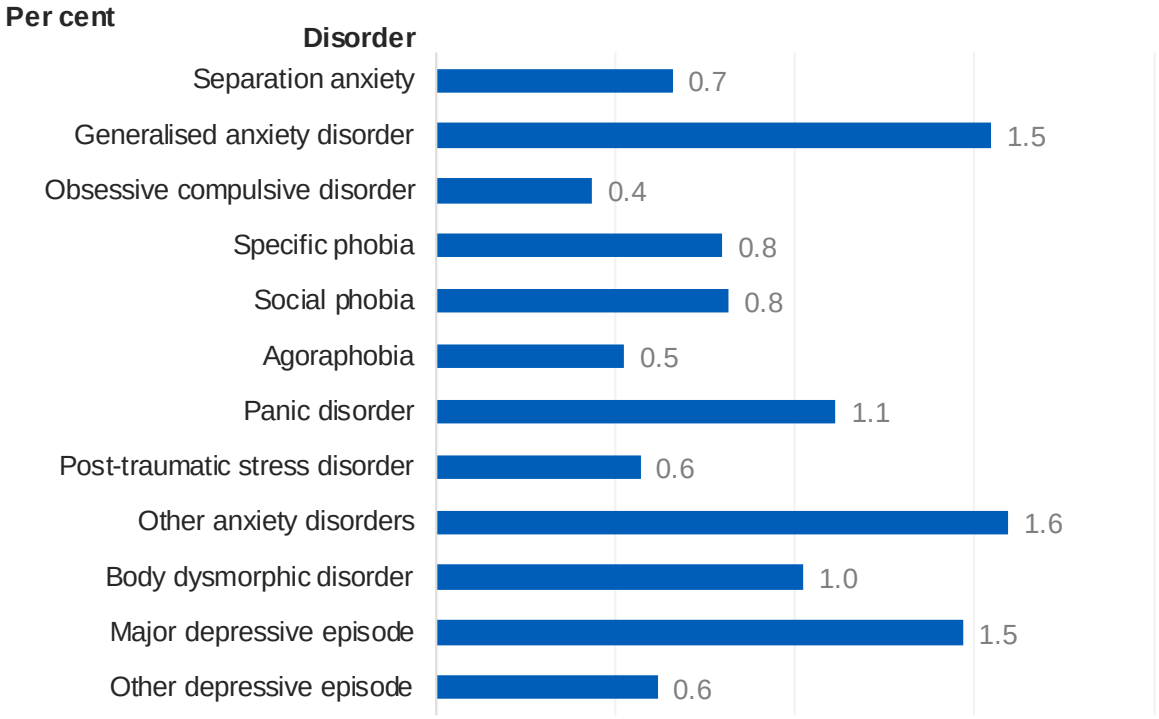
Major depressive episode and other depressive episode

Major depressive episodes[4] and other depressive episodes were present in 1.5% and 0.6% of children respectively. Major depressive episodes were more common in girls than boys, however there was no noticeable difference between boys and girls for other depressive episodes. (Figure 3a, Figure 3b; Table 1)

[4] Comprising of mild, moderate, and severe depressive episodes as defined by ICD-10

Figure 3a: Anxiety and depressive disorders, 2017

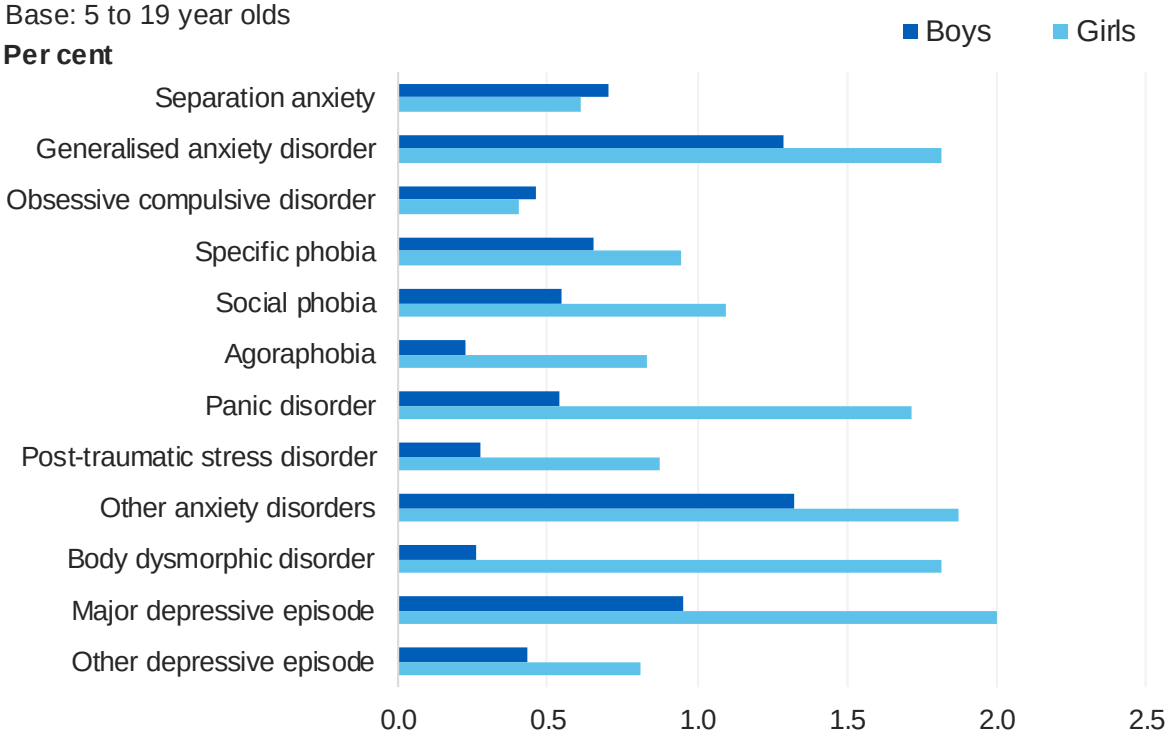
Base: 5 to 19 year olds



Source: NHS Digital

Figure 3b: Anxiety and depressive disorders by sex, 2017

Base: 5 to 19 year olds



Source: NHS Digital

Children and young people with an emotional disorder

This section examines the rates of emotional disorders and the two main types of emotional disorders: anxiety and depressive disorders.

Emotional disorders by ethnic group

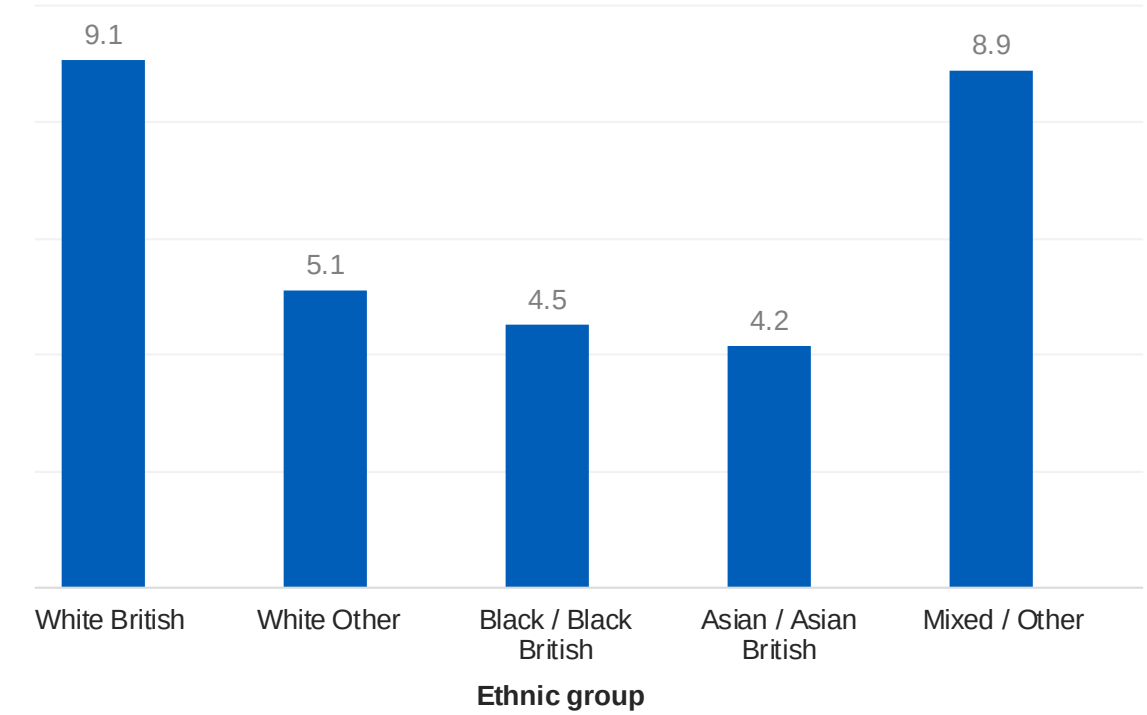
There was an association between ethnic group and the presence of an emotional disorder. Emotional disorders were most common in children of White British (9.1%) and Mixed/Other (8.9%) ethnic backgrounds. (Figure 4; Table 2)

The presence of anxiety disorders also varied by ethnic group but this was not the case for depressive disorders.

Figure 4: Any emotional disorder by ethnic group, 2017

Base: 5 to 19 year olds

Per cent



Source: NHS Digital

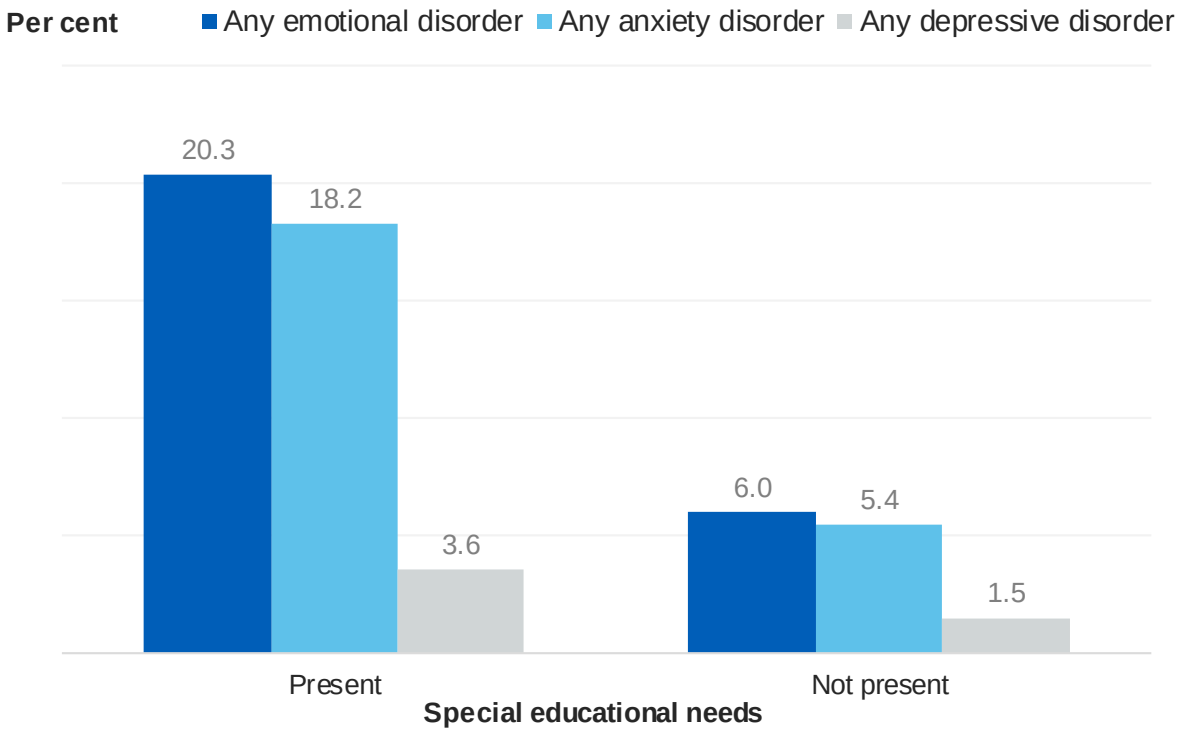
Emotional disorders by special educational needs

Children with special educational needs were more than three times as likely as children without special educational needs to have an emotional disorder (20.3% compared to 6.0%).

Anxiety and depressive disorders were also more common among children with special educational needs. (Figure 5; Table 3)

Figure 5: Emotional disorders by special educational needs, 2017

Base: 5 to 19 year olds



Source: NHS Digital

The survey did not establish whether the special educational needs that were recognised related directly to the disorder itself, but it is likely that this would sometimes have been the case. The kinds of disorders that can make it harder to cope in a school environment, like emotional disorders, may be particularly likely to be recognised as special educational needs.

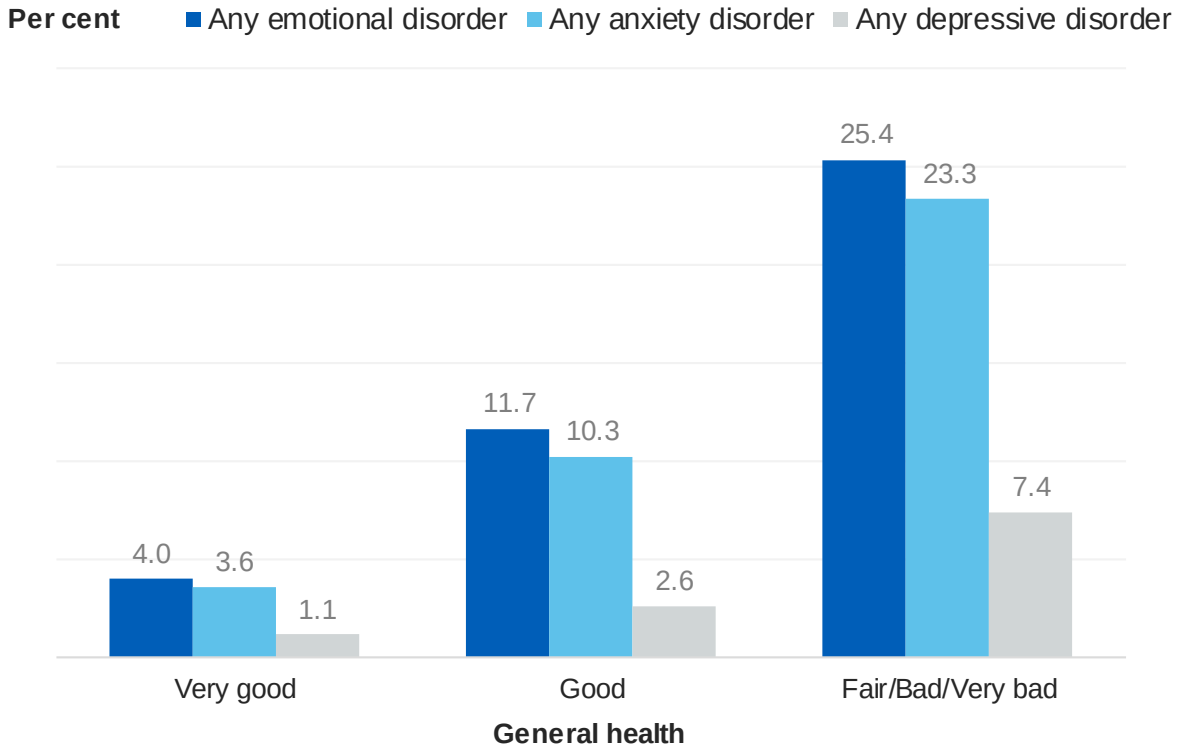
Emotional disorders by child's general health

One in four (25.4%) children whose general health was reported as fair, bad or very bad were identified as having an emotional disorder, compared to 4.0% of children whose general health was reported as very good.

This association between the general health of a child and the presence of a mental disorder was also found for children with anxiety and depressive disorders. (Figure 6; Table 4)

Figure 6: Emotional disorders by child's general health, 2017

Base: 5 to 19 year olds



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 the child's mental health and their physical health.

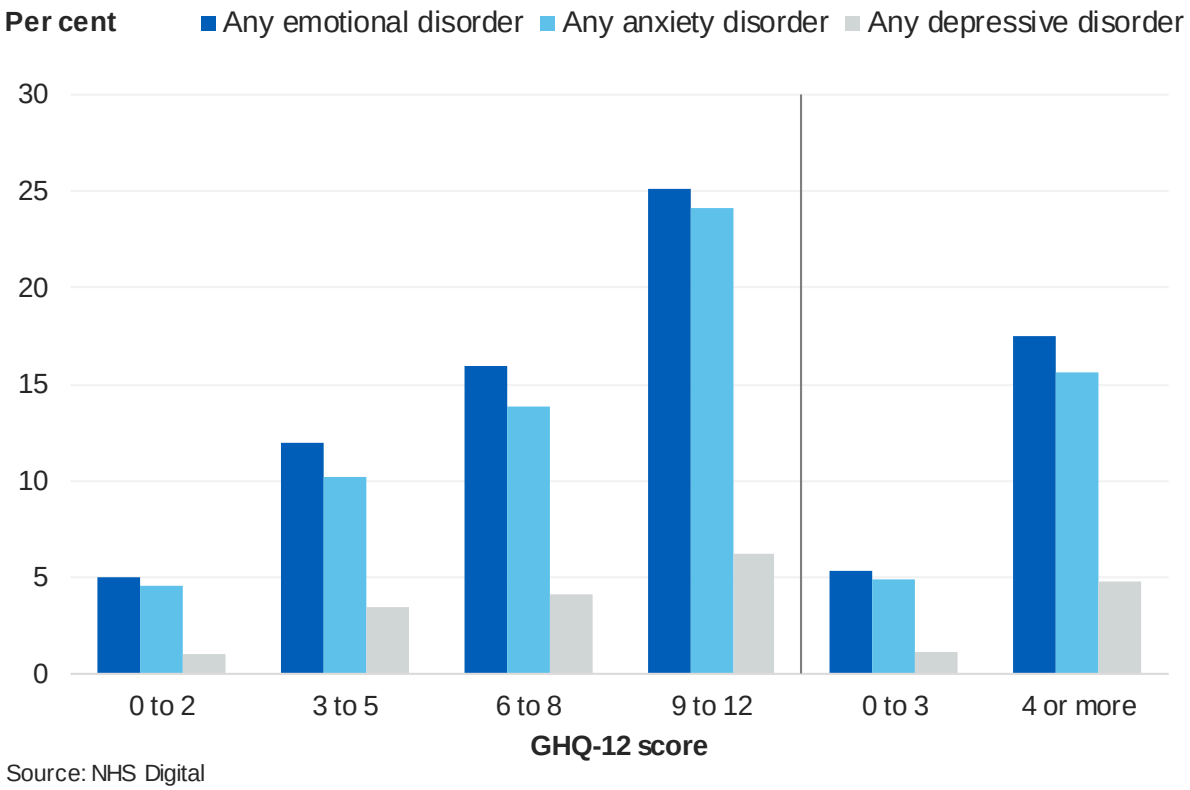
Emotional disorders by parent's mental health

Parental mental health, as assessed by the General Health Questionnaire (GHQ-12), was associated with whether a child had an emotional disorder. 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. Children whose parents had a high GHQ-12 score (9 to 12) were five times more likely to be identified with an emotional disorder (25.2%) than those whose parents showed little to no evidence of a common mental disorder (GHQ-12 score between 0 and 2) (5.0%).

Figure 7 shows a similar pattern was also found for anxiety and depressive disorders. (Figure 7; Table 5)

Figure 7: Emotional disorders by parent's mental health, 2017

Base: 5 to 19 year olds



Source: NHS Digital

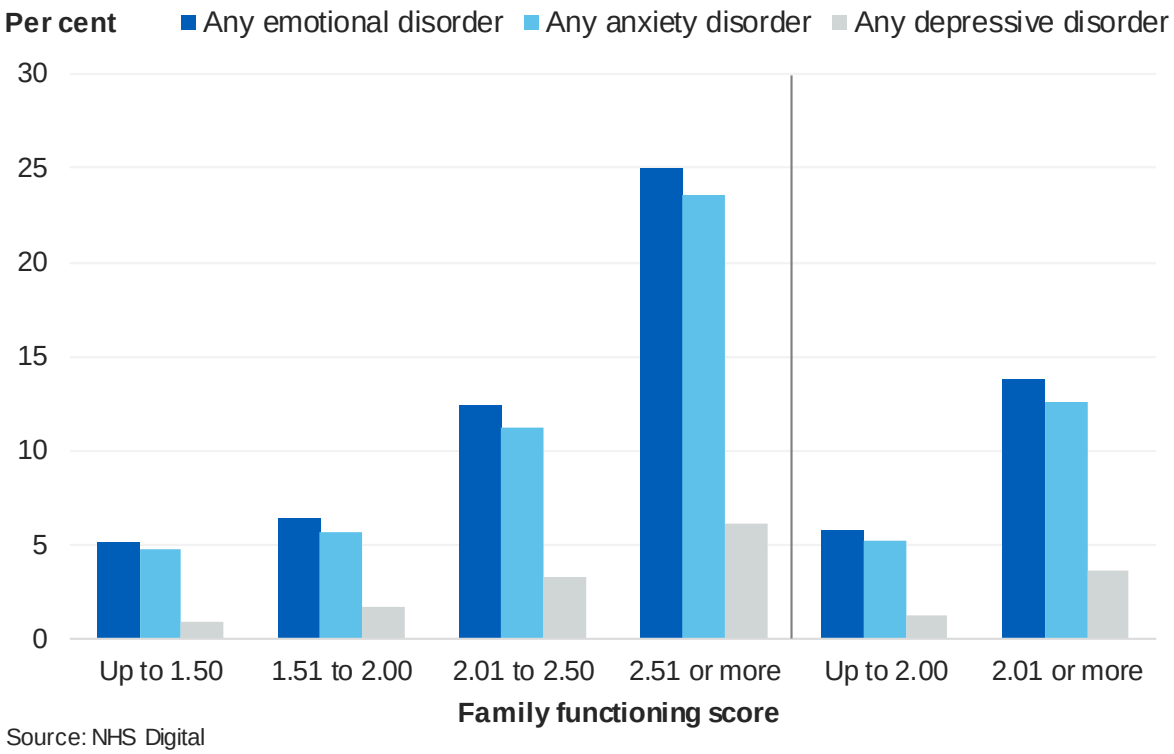
As a cross-sectional survey, these associations cannot explain causality. While the presence of a mental disorder in parents may contribute to the development of emotional disorders in children, the presence of emotional disorders in children may affect the mental health of parents.

Emotional disorders by family functioning

Children living in families with less healthy functioning were more likely to have an emotional disorder (13.8%), than children living in families with healthier functioning (5.8%). This was also the case for anxiety and depressive disorders. (Figure 8; Table 6)

Figure 8: Emotional disorders by family functioning score, 2017

Base: 5 to 19 year olds



Source: NHS Digital

As a cross-sectional survey, these associations cannot explain causality. While problems with family functioning may contribute to the onset of emotional disorders, the presence of emotional disorders could also lead to problems with family functioning.

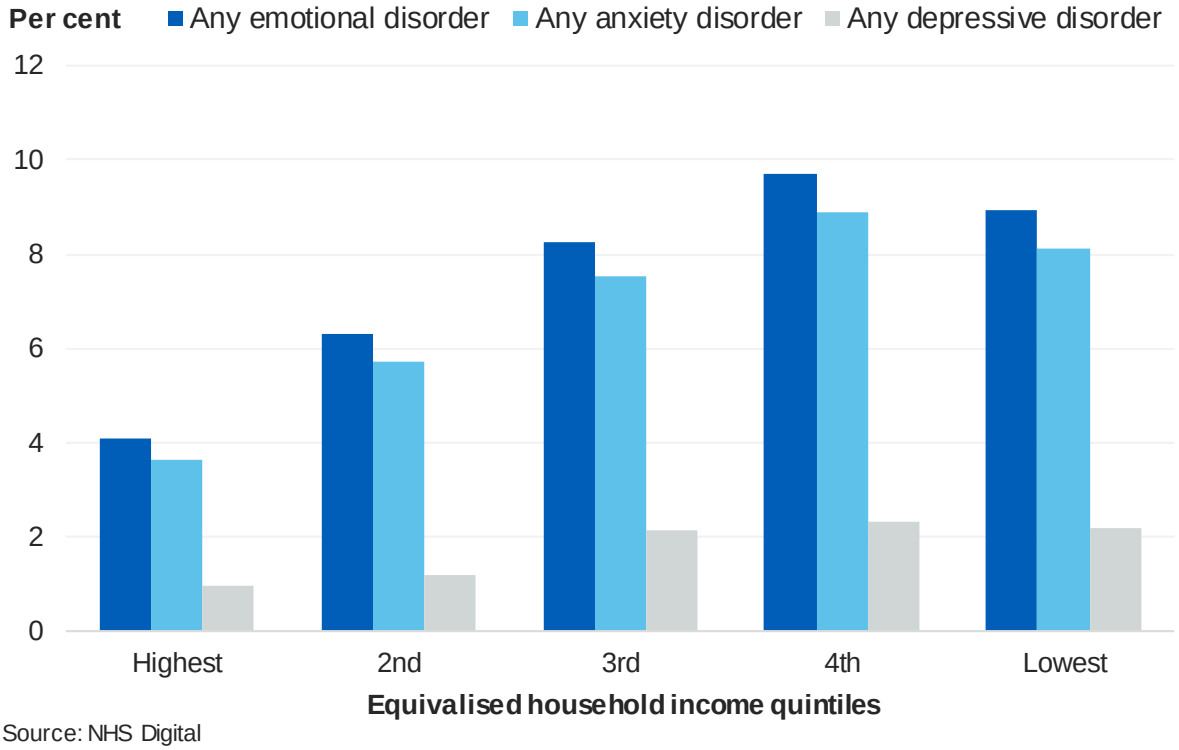
Emotional disorders by household income

Equivalised household income was associated with the presence of an emotional disorder. Children living in households with the lowest income (9.0%) had higher rates of emotional disorders compared to 4.1% for children in households with the highest income[5].

A similar pattern of association was also found for anxiety disorders and depressive disorders. (Figure 9; Table 7)

Figure 9: Emotional disorders by equivalised household income, 2017

Base: 5 to 19 year olds



Source: NHS Digital

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

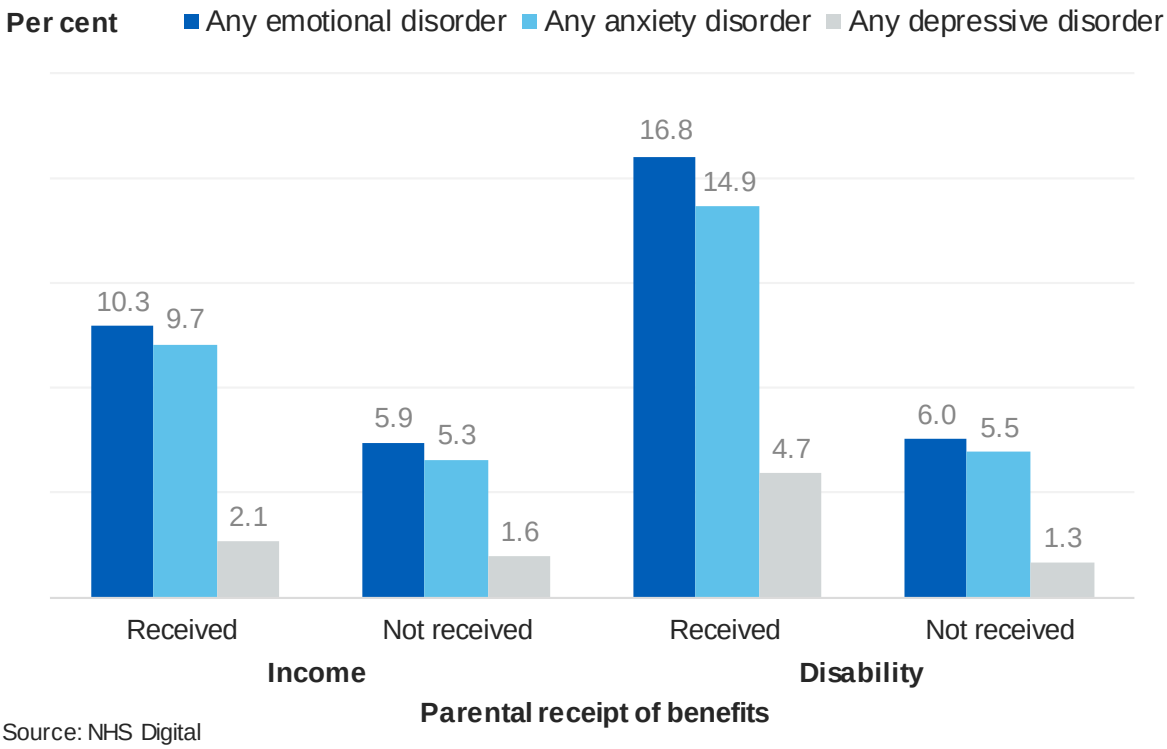
Emotional disorders by benefits

Children who lived with a parent in receipt of benefits related to low income and disability were more likely to have an emotional disorder than children whose parents were not receiving these benefits. The rate of emotional disorders was higher in children whose parents were in receipt of disability benefits (16.8%) than children whose parents received benefits related to low income (10.3%).

Rates of both anxiety and depressive disorders were higher in children whose parents received disability benefits compared to children whose parents were not receiving these benefits. Anxiety disorders were more common in children whose parents received low income benefits compared to children whose parents were not receiving these benefits, however this pattern was not observed for depressive disorders. (Figure 10; Table 8)

Figure 10: Emotional disorders by parental receipt of low-income benefits or disability-related benefits, 2017

Base: 5 to 19 year olds



Source: NHS Digital

Emotional disorders by neighbourhood deprivation

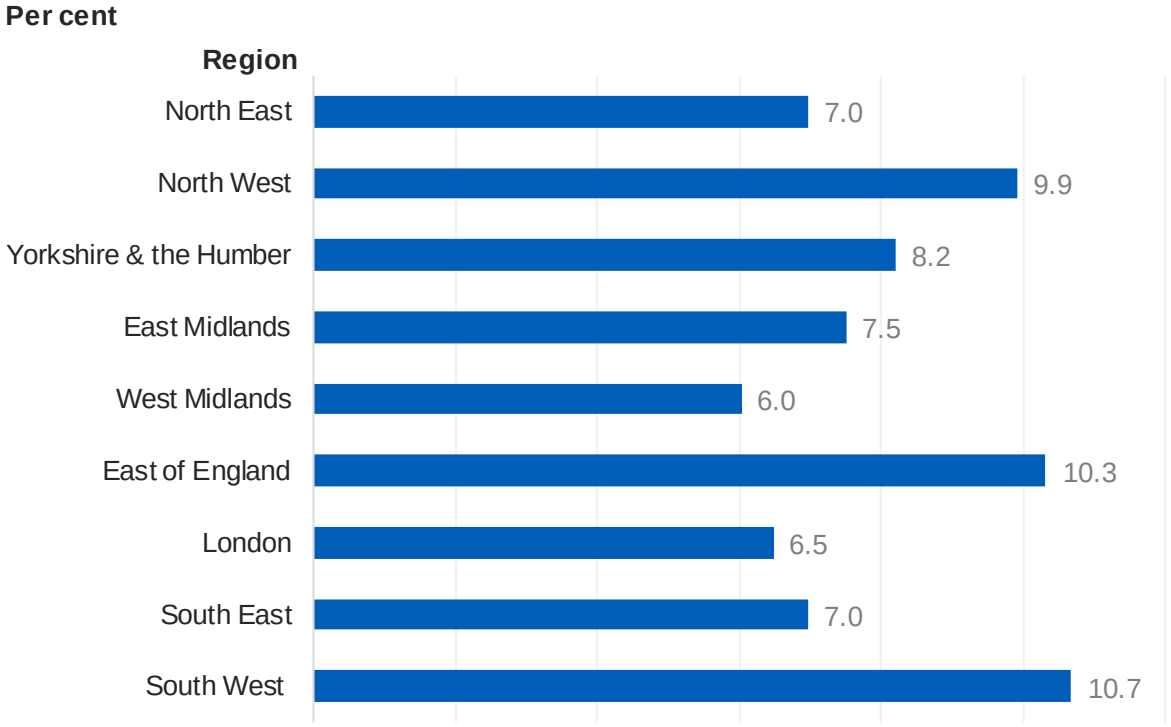
There was no association between neighbourhood deprivation (as measured using Index of Multiple Deprivation scores presented in quintiles) and the presence of emotional disorders in children. The rates of emotional disorders were similar in the most deprived (7.6%) and least deprived (7.4%) areas. (Table 9)

Emotional disorders by region

Region was associated with the presence of an emotional disorder in children, but there was no clear pattern between the different areas of England. (Figure 11; Table 10)

Figure 11: Any emotional disorder by region, 2017

Base: 5 to 19 year olds



Source: NHS Digital

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

Rates of emotional disorders[6] in 5 to 15 year olds were stable between 1999 (4.3%) and 2004 (3.9%) but increased by 2017 (5.8%). 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).

For further information about trends in emotional disorders see the Trends and Characteristics topic report.

[6] Examination of trends in emotional disorders over time does not include BDD because BDD was not assessed on the previous surveys in the series.

Discussion

Emotional disorders are among the most prevalent psychiatric disorders experienced in childhood and adolescence (Merikangas et al., 2009). They are associated with severe impairment in social, academic and family functioning in childhood (Nilsen et al., 2013) and have been shown to continue into in adulthood (Essau et al., 2018).

This study found that the rate of emotional disorders in children increased as age increased, with the highest rates among 17 to 19 year olds. Results from the 2014 Adult Psychiatric Morbidity Survey (Stansfeld et al., 2016) found about one in five (18.9%)[7] of 16 to 24 year olds experienced a common mental disorder such as anxiety or depression.

Anxiety disorders were the most common type of emotional disorder in children. They typically have an early age of onset, during childhood or adolescence (Beesdo et al., 2009), with the age of onset varying by the type of anxiety disorder. For example, separation anxiety commonly onsets early in development while generalised anxiety disorder, panic disorder, and agoraphobia tend to onset in young adulthood (Copeland et al., 2014). Major depressive disorder has been associated with a steady increase in prevalence throughout childhood and adolescence (Merikangas et al., 2010).

Emotional disorders were more commonly found in girls than boys, with the highest rates found amongst girls aged 17 to 19 years old (22.4%). Research conducted by Office for National Statistics (ONS) found that 21% of young people (16 to 24 year olds) reported symptoms of anxiety or depression, with young women more likely than young men to report these symptoms (ONS, 2017). Similarly, the 2014 Adult Psychiatric Morbidity Survey found that anxiety disorders were more common in young women aged 16 to 24 than other age and sex groups (Stansfeld et al., 2016).

Research indicates that the reasons for this higher rate of emotional disorders in girls aged 17 to 19 year old are likely to be complex. Some studies suggest the difference between the sexes increases around puberty (Wesselhoeft et al., 2015). Anxiety disorders, although common across all population groups, tend to disproportionately affect women and young people (Remes et al., 2016). The reasons for this are likely due to a complex interaction of biological and lifestyle factors, however the extent of influence of different factors remains unclear (NHS Choices, 2016).

This report also found that emotional disorders were more prevalent in children with poorer general health compared to children with good or very good general health. While poor general health may be a result of many different factors, childhood obesity is an area of increasing attention, with estimates suggesting that 16% of children aged 2 to 15 are obese (NatCen, 2017). Anderson et al. (2007) found that adolescent obesity in girls was associated with an increased risk for major depressive disorder

[7] See: https://digital.nhs.uk/data-and-information/publications/statistical/adult-psychiatric-morbidity-survey/adult-psychiatric-morbidity-survey-survey-of-mental-health-and-wellbeing-england-2014, APMS 2014: Chapter – Common Mental Disorders - Tables, Table 2.3

and anxiety disorder compared with non-overweight adolescent girls. Furthermore, Eisenberg et al. (2003) suggested that it is likely that the symptoms of emotional disorders are caused by negative self-appraisal and teasing associated with higher levels of body dissatisfaction. The UK Government's childhood obesity plan (Cabinet Office, 2017) highlights the importance of reducing childhood obesity levels in order to reduce future health risks.

Rates of emotional disorders were higher in children of parents who were considered to have a common mental disorder. There is substantial evidence that maternal depression and anxiety increases the risk of mental disorders among children (Goodman et al., 2011). It has further been reported that this effect is consistently stronger for daughters than for sons (Gonçalves et al., 2016) which may partially explain why this study found a higher rate of emotional disorders in girls. The Government's Maternal Mental Health Pathway (NHS England, 2018) sets out how by 2021 specialist perinatal mental health services will support an additional 30,000 women each year to receive evidence-based treatment. Research also suggests an association between depressive symptoms in fathers and depressive symptoms in their adolescent children (Lewis et al., 2017), highlighting the importance of treating depression in both parents.

Finally, this survey has also found that 1.0% of 5 to 19 year olds experienced Body Dysmorphic Disorder (BDD), with rates highest in girls aged 17 to 19. Research has found that the age of onset for BDD is usually in childhood or adolescence (Bjornsson et al., 2013) but often goes unnoticed and is severely underdiagnosed (Krebs et al., 2017). Adolescents with BDD are typically more likely to be associated with high levels of distress, suicidal ideation and school impairments (Phillips et al., 2006). This report has contributed to growing research into BDD by highlighting the number of children and young people experiencing this more severe form of negative body image.

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 12: 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.

Trends and 2017 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**.

Anxiety disorders

Anxiety disorders are a type of emotional disorder characterised by excessive feelings of fear and distress, often accompanied by physiological symptoms.

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.

Social phobia

Fear of scrutiny by other people leading to avoidance of social situations. More pervasive social phobias are usually associated with low self-esteem and fear of criticism. The symptoms may progress to panic attacks.

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 with to cope.

Body dysmorphic disorder

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).

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. The number of symptoms present and the level of impairment to everyday functioning determines whether a child is diagnosed with a mild depressive episode, moderate depressive episode, or severe depressive episode based on the ICD-10 classification.

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.

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.

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 is generally considered indicative of 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: 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 in England. This allows each area 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 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.

References

American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders (5th ed.).* Arlington: American Psychiatric Publishing

Anderson, S.E., Cohen, P., Naumova, E.N., et al. (2007). Adolescent obesity and risk for subsequent major depressive disorder and anxiety disorder: prospective evidence. *Psychosomatic Medicine*, 69(8), pp. 740-747

Beesdo, K., Knappe, S., and Pine, D.S. (2009). Anxiety and anxiety disorders in children and adolescents: developmental issues and implications for DSM-V. *Psychiatric Clinics of North America*, 32(3), pp. 483-524

Bhatia, S.K. and Bhatia, S.C. (2007). Childhood and adolescent depression. *American Family Physician*, 75(1), pp. 73-80

Bjornsson, A.S., Didie, E.R., Grant, J.E., et al. (2013). Age at onset and clinical correlates in body dysmorphic disorder. *Comprehensive Psychiatry,* 54(7), pp. 893-903

Cabinet Office, Department of Health and Social Care, HM Treasury, Prime Minister's Office, 10 Downing Street. (2017). *Childhood obesity: a plan for action*. Available at: https://www.gov.uk/government/publications/childhood-obesity-a-plan-for-action/childhood-obesity-a-plan-for-action [Accessed 24 September 2018]

Copeland, W.E., Angold, A., Shanahan, L., et al. (2014). Longitudinal patterns of anxiety from childhood to adulthood: the Great Smoky Mountains Study. *Journal of the American Academy of Child & Adolescent Psychiatry*, 53(1), pp. 21-33

Eisenberg, M.E., Neumark-Sztainer, D., and Story, M. (2003). Associations of weight-based teasing and emotional well-being among adolescents. *Archives of Pediatrics & Adolescent Medicine*, 157(8) pp. 733-738

Essau, C.A., Lewinsohn, P.M., Lim, J.X., et al. (2018). Incidence, recurrence and comorbidity of anxiety disorders in four major developmental stages. *Journal of Affective Disorders*, 228(1), pp. 248-253

Ginsburg, G.S., Becker-Haimes, E.M., Keeton, C., et al. (2018). Results from the Children/Adolescent Anxiety Multimodal Extended Long-Term Study (CAMELS): primary anxiety outcomes. *Journal of the American Academy of Child and Adolescent Psychiatry,* 57(7), pp. 471-480

Gonçalves, H., Pearson, R.M., Horta, B.L., et al. (2016). Maternal depression and anxiety predicts the pattern of offspring symptoms during their transition to adulthood. *Psychological Medicine*, 46(2), pp. 415-424

Goodman, R., Ford, T., Richards, H., et al. (2000). The Development and Well-Being Assessment: description and initial validation of an integrated assessment of child and adolescent psychopathology. *The Journal of Child Psychology and Psychiatry and Allied Disciplines,* 41(5), pp. 645-655

Goodman, S.H., Rouse, M.H., Connell, A.M., et al. (2011). Maternal depression and child psychopathology: A meta-analytic review. *Clinical Child and Family Psychology Review*, 14(1), pp. 1-27

Green, H., McGinnity, Á., Meltzer, H., et al. (2005). *Mental health of children and young people in Great Britain, 2004.* London, TSO

Kessler, R.C., Avenevoli, S., and Merikangas, K. (2001). Mood disorders in children and adolescents: an epidemiologic perspective. *Biological Psychiatry*, 49(12), pp. 1002-1014

Krebs, G., de la Cruz, L.F., and Mataix-Cols, D. (2017). Recent advances in understanding and managing body dysmorphic disorder. *Evidence-based mental health,* 20(3), pp. 71-75

Lewis, G., Neary, M., Polek, E., et al. (2017). The association between paternal and adolescent depressive symptoms: evidence from two population-based cohorts. *The Lancet Psychiatry*, 4(12), pp. 920-926

Meltzer, H., Gatward, R., Goodman, R., et al. (2000). *The mental health of children and adolescents in Great Britain.* London: The Stationery Office

Mendlowicz, M.V. and Stein, M.B. (2000). Quality of life in individuals with anxiety disorders. *American Journal of Psychiatry*, 157(5), pp. 669-682

Merikangas, K., Nakamura, E., and Kessler, R. (2009). Epidemiology of mental disorders in children and adolescents. *Dialogues in Clinical Neuroscience,* 11(1), pp. 7-20

Merikangas, K.R., He, J.P., Burstein, M., et al. (2010). Lifetime prevalence of mental disorders in US adolescents: results from the National Comorbidity Survey Replication–Adolescent Supplement (NCS-A). *Journal of the American Academy of Child & Adolescent Psychiatry*, 49(10), pp. 980-989

National Centre for Social Research. (2017). *Health Survey for England 2016, Children's health.* Available at: https://files.digital.nhs.uk/publication/m/c/hse2016-child-health.pdf [Accessed 24 September 2018]

National Institute of Mental Health. (2015). *Bipolar disorder in children and teens*. Available at: from https://www.nimh.nih.gov/health/publications/bipolar-disorder-in-children-and-teens/qf-15-6380_152267.pdf [Accessed 20 September 2018]

NHS choices. (2016). *Women are more likely to suffer from anxiety than men.* Available at: https://www.nhs.uk/news/mental-health/women-are-more-likely-to-suffer-from-anxiety-than-men/ [Accessed 24 September 2018]

NHS England. (2018). *The perinatal mental health care pathways*. Available at: https://www.england.nhs.uk/publication/the-perinatal-mental-health-care-pathways/ [Accessed 24 September 2018]

Nilsen, T.S., Eisemann, M., and Kvernmo, S. (2013). Predictors and moderators of outcome in child and adolescent anxiety and depression: a systematic review of psychological treatment studies. *European Child & Adolescent Psychiatry*, 22(2), pp. 69-87

Office for National Statistics. (2017). *Young people's well-being: 2017.* Available at: https://www.ons.gov.uk/releases/youngpeopleswellbeing2017 [Accessed 24 September 2018]

Phillips, K., Didie, E., Menard, W., et al. (2006). Clinical features of body dysmorphic disorder in adolescents and adults. *Psychiatry Research,* 141(3), pp. 305-314

Remes, O., Brayne, C., van der Linde, R., et al. (2016). A systematic review of reviews on the prevalence of anxiety disorders in adult populations. *Brain and Behavior*, 6(7), pp. e00497

Sawyer, S., Azzopardi, P., Wickremarathne, D., et al. (2018). The age of adolescence. *The Lancet Child & Adolescent Health*, 2(3), pp. 223-228

Stansfeld, S., Clark, C., Bebbington, P., et al. (2016). Chapter 2: Common mental disorders. In McManus, S., Bebbington, P., Jenkins, R., et al. (eds), *Mental health and wellbeing in England: Adult Psychiatric Morbidity Survey 2014.* Leeds: NHS Digital

Veale, D. and Matsunaga, H. (2014). Body dysmorphic disorder and olfactory reference disorder: proposals for ICD-11. *Revista Brasileira de Psiquiatria*, 36(1), pp. 14-20

Wesselhoeft, R., Pedersen, C.B., Mortensen, P.B., et al. (2015). Gender-age interaction in incidence rates of childhood emotional disorders. *Psychological Medicine*, 45(4), pp. 829-839

World Health Organization. (1992). *The ICD-10 Classification of Mental and Behavioural Disorders: Clinical descriptions and diagnostic guidelines*, WHO: Geneva

World Health Organization. (1993). *The ICD-10 classification of mental and behavioural disorders: diagnostic criteria for research (Vol. 2)*, WHO: Geneva

World Health Organization. (2008). *The global burden of disease: 2004 update,* WHO: Geneva

World Health Organization. (2017). *Depression and other common mental disorders: global health estimates,* WHO: Geneva

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