

# Children's mental health and the COVID-19 pandemic



The impact of the COVID-19 pandemic on children's mental health has raised serious concerns. This briefing summarises evidence about the mental health and wellbeing of children (under 18 years old) before and during the pandemic. It also discusses policy approaches to protecting and improving children's mental health. As health policy is a devolved issue, this paper focuses on England.

## Background

The COVID-19 pandemic has caused unprecedented disruption in children's lives, potentially unsettling their emotional, cognitive and social development. Many known risk factors for child mental health disorders have intensified, such as socioeconomic disadvantage, social isolation and bereavement. Additionally, access to many sources of support has reduced, including friends, schools and leisure activities.<sup>1-3</sup> As a result, there is substantial concern that the pandemic may have long-lasting negative impacts on child mental health, compounding pre-pandemic concerns about child mental health (Box 1).<sup>4,5</sup>

Many beneficial interventions can treat and prevent child mental health difficulties.<sup>6,7</sup> To improve provision, several cross-Government department initiatives are underway.<sup>8-10</sup> However, many stakeholders highlight that these initiatives are likely to be insufficient to meet the needs of most children with, or at risk of, poor mental health.<sup>11-15</sup> They emphasise that more action is urgently needed to improve child mental health.<sup>11-25</sup>

## Overview

- In the UK, mental health disorders are the leading cause of child disability, and there are high unmet child mental health needs.
- The COVID-19 pandemic has intensified known risk factors for child mental health disorders and disrupted support structures.
- Limited data suggests an overall worsening of child mental health during the pandemic, although most children have remained well.
- Vulnerability factors appear to include previous mental health or learning difficulties and socioeconomic disadvantage.
- Cross-Government response has included £79m to accelerate previous plans to protect and improve children's mental health.
- Many experts agree that further action is urgently needed, including prioritising social and educational activities, addressing socioeconomic disadvantage, enhancing family support, and improving and expanding child mental healthcare provision.

## Box 1: Children's mental health before COVID-19

Pre-pandemic, about 1 in 9 children met criteria for a mental health disorder at any one time in England.<sup>3,26</sup> This includes:

- emotional disorders – e.g., depression or anxiety disorders
- behavioural disorders – e.g., conduct disorder
- neurodevelopmental disorders – e.g., attention-deficit hyperactivity disorder (ADHD)
- psychotic disorders – e.g., schizophrenia.<sup>27</sup>

All these disorders can be severe in childhood and many can be life-threatening.<sup>28</sup> They are the leading cause of disability in children in the UK.<sup>29</sup> Evidence suggests that child mental health disorders have become more common and more strongly linked with poor outcomes over recent decades.<sup>30-32</sup> There are cost-effective treatments that can have long-term benefits for individuals and society.<sup>6,7</sup> However, NHS healthcare provision has not met demand.<sup>18,33</sup> Before the pandemic, an estimated 1 in 3 to 1 in 4 children with a treatable mental health disorder had seen a mental health professional.<sup>18</sup> This high level of unmet child mental health need pre-pandemic was widely described as a "crisis".<sup>34-37</sup>

## Children's mental health during COVID-19

There has been limited robust research published to date about the mental health of children (under 18 years old) during the COVID-19 pandemic, with almost none focused on infants or pre-schoolers (under 5 years old).<sup>4,38,39</sup> Studies that have been undertaken used questionnaires, interviews or health records. Most suggest that, on average, children's mental health has worsened during the pandemic, particularly in lockdowns.<sup>40</sup> However, considerable differences were observed between individuals, and most children remained mentally well. Studies conducted in England, described below, found results consistent with research undertaken in other countries.<sup>41-44</sup> Because few children experience COVID-19 illness,<sup>45</sup> these findings are thought to reflect indirect effects of COVID-19, via social isolation and school closures.<sup>44,46-49</sup> Less is known about direct effects of COVID-19 infection on child mental health (Box 2).

### Comparisons with pre-pandemic

Four published studies have compared the mental health of children before and during the pandemic in England.<sup>3,50-52</sup> Key limitations include unrepresentative samples; different methods used before versus during the pandemic; and not accounting for underlying trends of deteriorating mental health over time and with increasing age.<sup>53,54</sup> Additionally, published data was collected early in the pandemic (April-August 2020), and not more recently. One large national study and two small regional studies found that children's mental health had worsened, but one large regional study found no change or improvements:

- The Mental Health of Children and Young People in England Survey (MHCYP) followed up 2,704 5-16 year-olds. It found that 1 in 6 (16.0%) had a probable mental health disorder in July 2020, increasing from 1 in 9 (10.8%) in 2017.<sup>3</sup>
- The Wirral Child Health and Development Study (WCHDS) assessed 202 11-12 year-olds. It found higher symptom scores for depression, post-traumatic stress disorder, and disruptive behaviour, but not for anxiety, in June-August 2020, compared with December 2019-March 2020.<sup>52</sup>
- The Resilience in Education and Development Study in East England assessed 168 7-11 year-olds. It found higher symptom scores for depression but not anxiety in April-June 2020, compared with June 2018-September 2019.<sup>50</sup>
- A study in South West England of 1,047 13-14 year-olds found no change in risk of depression, a decrease in risk of anxiety, and increased wellbeing in April-May 2020, compared with October 2019.<sup>51</sup>

These conflicting findings are difficult to explain, but might be due to differences in samples, methods, or assessment dates.

### Changes during the pandemic

Some studies assessed the mental health of children on several occasions during the pandemic, to examine changes over time. The most robust example that focuses on children in the UK is the Co-SPACE Study (COVID-19: Supporting Parents, Adolescents and Children during Epidemics Study).<sup>55</sup> It collected data monthly from over 9,000 parents/carers of 4-16 year-olds and from over 1,300 adolescents (11-16 year-olds). The key limitation is under-representation, for example of less affluent and minority ethnic families. Results suggest that participating children's mental health worsened during lockdowns and school closures, peaking in June 2020 and February 2021, and

improved as restrictions eased. This pattern was observed for symptom scores as well as rates of possible/probable mental health disorder which reflect treatment need.<sup>56,57</sup>

### Trends identified from health records

Data show that the number of children and families seeking mental healthcare reduced at the start of the pandemic. For example, the number of children attending health services (according to GP records) and emergency departments (according to NHS data) for self-harm was lower in April 2020 than previously.<sup>58,59</sup> However, as the pandemic has progressed, referrals to child mental health services have reached record highs, with the latest NHS England data (May 2021) showing the highest ever recorded monthly referrals.<sup>60</sup> In April 2020-March 2021 there was a 37% increase in child mental health service referrals, and a 59% increase in referrals for child eating disorder issues, compared with the previous year.<sup>61</sup> These annual figures show that high referral rates in recent months are not just making up for families delaying seeking help early in the pandemic, but reflect greater demand.<sup>62,63</sup>

### Variation between individuals

Average trends can mask considerable variation between individuals. Studies found that although some children had poorer mental health, many experienced few symptoms and some had improved mental health.<sup>64</sup> For example, across all ages, 25-41% of children said they felt happier during lockdown in the OxWell School Survey of 19,000 8-18 year-olds.<sup>65</sup>

The variation between individuals was explored in studies using interviews, diary reviews and surveys. Some children described loneliness, demotivation, a loss of purpose, uncertainty about their future, stress about schoolwork, exams or employment, and worry about themselves or loved-ones getting COVID-19. Some thought their mental health was negatively affected by reduced contact with friends and family, less educational support, limited access to hobbies and exercise, lack of daily structure, and disrupted exams or work. In contrast, others enjoyed having more time to rest, strengthen relationships with family, and think about their future. Some described increased appreciation and gratitude for what they have, especially relationships. Some felt they benefitted from not needing to face bullies and other sources of stress present at school.<sup>66-77</sup>

#### Box 2: Direct effects of COVID-19 infection

To investigate whether the infection directly affects child mental health, research needs to focus on children with COVID-19. In studies of children with acute COVID-19, marked neuropsychiatric symptoms such as confusion seem to occur rarely.<sup>78-80</sup> Emerging evidence suggests that some children with COVID-19 may have persistent symptoms termed 'long COVID', including symptoms that overlap with mental health disorders, such as fatigue.<sup>81-83</sup> However, few studies of children with COVID-19 have used robust mental health measures and included comparison groups. Two studies have compared the mental health of adolescents who tested positive for SARS-CoV-2 virus or antibodies and those who tested negative. Both found no difference in mental health symptoms between groups.<sup>84,85</sup> Further research on the mental health of children with acute infections and long COVID is ongoing. This is necessary to understand potential direct effects of COVID-19 on child mental health.<sup>86,87</sup>

## Vulnerability factors

Research suggests that certain factors, described below, are linked with increased vulnerability to poor child mental health in the pandemic. Also, children with several factors seem more likely to have mental health difficulties than those with just one factor. Most are known risk factors for poor child mental health.

### Previous mental health and learning difficulties

One of the factors most strongly and consistently associated with poor child mental health during the pandemic is having pre-existing or previous mental health or learning difficulties.

- The WCHDS found that participants with greater early childhood emotional or behavioural symptoms were more likely than their peers to have depression or behavioural problems both before and during the pandemic.<sup>52</sup>
- The Co-SPACE Study found that children with special educational needs or neurodevelopmental disorders (ADHD or autism) were more likely than their peers to have persistently poorer or worsening emotional, behavioural and concentration symptoms assessed in the first lockdown.<sup>64</sup>
- The OxWell School Survey found that children who had previously accessed mental health support were more likely than their peers to report a deterioration in their wellbeing during lockdown, as well as depression and anxiety.<sup>88</sup>
- A YoungMinds survey of over 2,000 13-25 year-olds with previous mental health difficulties found that 80% felt that the pandemic had worsened their mental health.<sup>89</sup>

Children with pre-existing neurodevelopmental disorders seem more negatively affected than those with pre-existing emotional disorders, according to parent reports.<sup>90</sup> Surveys highlight that many children with autism and intellectual disability found the disruption very distressing, and their families were under strain because of reduced support. However, some have been able to adapt and have found remote engagement with education and other activities easier to manage than in person.<sup>19,91,92</sup>

### Socioeconomic disadvantage and family stress

Another factor consistently associated with poor child mental health during the pandemic is socioeconomic disadvantage.

- The MHCYP Survey found that children with a probable mental health disorder in July 2020 were more than twice as likely to live in a household that had fallen behind with payments during the pandemic, compared to their peers.<sup>3</sup>
- The Co-SPACE Study found that children from families earning less than £16,000 annually were more likely than their peers to have persistently poorer mental health symptoms assessed during the first lockdown.<sup>64</sup>
- The OxWell School Survey found that children who experienced food poverty were more likely than their peers to report a deterioration in their wellbeing during lockdown, and to have depression or anxiety.<sup>88</sup>

Other forms of family stress were also linked with poor child mental health. In particular, parental psychological distress was associated with probable mental health disorders in children,<sup>3</sup> and with persistently poorer or worsening child mental health symptoms assessed during the first lockdown.<sup>64</sup> Experiencing family conflict, being from single adult households, and having key worker parents were also linked with pandemic child mental

health difficulties.<sup>64,88,93</sup> Additionally, domestic violence, abuse and neglect reports rose during the pandemic,<sup>94-96</sup> which are known major risk factors for poor child mental health.<sup>97,98</sup>

## Age

Children in some age groups may be more affected than others.

- Primary school aged children (4-10 year-olds) in the Co-SPACE Study were more likely than secondary school aged children (11-16 year-olds) to have persistently poorer or worsening behavioural and concentration symptoms, assessed during the first lockdown.<sup>64</sup> Overall, primary school aged children had greater changes in symptoms throughout the pandemic, whereas symptoms in secondary school aged children were more stable.<sup>56,57</sup> This may be related to findings that primary school aged children had less contact with peers, or that their parents experienced more distress, compared with secondary school aged children.<sup>40</sup>
- Within secondary school aged children, those preparing for exams in 2021 were at higher risk of depression, anxiety and poorer wellbeing during the pandemic compared with others in the OxWell School Survey. This may result from exam stress and uncertainty.<sup>88</sup>
- Older adolescents (16 years and over) were highlighted as a vulnerable group by stakeholders. This age group had the greatest risk of mental health disorders pre-pandemic,<sup>26,99</sup> and have high rates of employment loss during the pandemic which may exacerbate their pre-existing risk.<sup>1,2</sup> Some studies report that this group had more deterioration of their mental health during the pandemic than older age groups.<sup>100,101</sup> No studies compared this group with younger children.
- Infants' and pre-school aged children's mental health has been understudied during the pandemic.<sup>102</sup> In a survey, 68% of parents reported that the pandemic had affected their 0-2 year-old.<sup>103</sup> A questionnaire study found that 2-5 year-olds seemed to have stable mental health in early lockdown.<sup>104</sup>

## Gender

Girls were more likely to experience emotional difficulties and boys were more likely to experience behavioural difficulties during the pandemic. This reflects usual gender patterns in symptoms and disorders.<sup>52,56,57,64</sup> Girls were also more likely than boys to report worsened wellbeing during the pandemic.<sup>88</sup>

## Ethnicity

Children from minority ethnic backgrounds have been highlighted by stakeholders as potentially vulnerable to poor mental health in the pandemic. They experience higher rates of socioeconomic and other disadvantage and are impacted by racism.<sup>105-107</sup> While one pandemic study found that minority ethnic parents reported higher levels of anxiety in their primary school aged children than White parents,<sup>2</sup> other research did not find an increased risk.<sup>3,51</sup> However, children from minority ethnic backgrounds were under-represented in most studies.<sup>108</sup>

## Other vulnerable groups

Other groups of children who are socially isolated or who lose support in the pandemic are also more likely to experience poor mental health. They include looked after children, those advised to shield, others with physical health conditions, young carers and LGBT children.<sup>109</sup> Research on these groups is limited, but surveys suggest many had worsened mental health.<sup>110-115</sup>

## Protecting and improving mental health

There have been efforts to protect and improve the mental health of children during the pandemic, through research, cross-Government policy, and education and healthcare practice. However, many stakeholders highlight that more work is needed to address children's needs adequately.<sup>4,11–25,38,39</sup>

### Research

Several research funding bodies have made child mental health research a core priority in recent years.<sup>116,117</sup> Additionally, funders responded to the COVID-19 pandemic with calls for research about its broad impact.<sup>118–122</sup> However, relatively few studies have investigated the impact of the pandemic on child mental health, or how to address this impact.<sup>4,38,39,123</sup>

Compounding this, many researchers reported that lengthy approval processes have prevented timely access to NHS data for research.<sup>124</sup> Experts agree that further and prompt research about child mental health and healthcare is needed to inform policy and practice. This would require investment in the field, more frequent national surveys, relevant intervention studies, efficient data access and improved data integration.<sup>15,38,39,123–125</sup>

### Prevention in the population

Worsening of child mental health during school closures and in those at socioeconomic disadvantage highlights the importance of education, financial and family support.

#### *Supporting children in educational settings*

The benefit of education for mental health likely comes from opportunities for learning, social development and play, as well as staff support for health and social needs.<sup>44,126,127</sup> Pandemic school restrictions limited these benefits. The Children's Commissioner and others argued that re-opening schools to all should have been a greater priority.<sup>25,128–130</sup> For future lockdowns, other education models have been proposed.<sup>131</sup>

To improve children's mental health, the Government has begun to implement strategies outlined in the 2019 NHS Long Term Plan and the 2017 Green Paper on Transforming Children and Young People's Mental Health Provision.<sup>8–10</sup> Several of these plans are relevant to promoting mental health and wellbeing in all children in schools, including training school senior mental health leads,<sup>132</sup> integrating mental wellbeing learning into the curriculum,<sup>133</sup> and ensuring a whole-school approach to wellbeing.<sup>134,135</sup> Initiatives funded during the pandemic were the Wellbeing for Education Return (£8m) and Recovery programmes (£7m), which aim to train school staff to support children's wellbeing and link with local services.<sup>136,137</sup> Despite these initiatives, some stakeholders raise concerns about insufficient consideration of wellbeing across education policy. They also state that more focus should be placed on enhancing health and wellbeing than on academic results. Furthermore, they highlight the need to address sources of stress in school, such as bullying and social pressures.<sup>20,25,138–141</sup>

Education recovery is widely seen as crucial for child mental health.<sup>44,129</sup> The Government has provided £3bn to date for schools to deliver academic and pastoral support.<sup>142</sup> However, this has been criticised as insufficient by many stakeholders.<sup>143</sup> One analysis estimated that £13.4bn over 3 years is required to reverse the pandemic's damage to children's education.<sup>144</sup>

#### *Financial and other support for families*

The pandemic is likely to have long-term economic and social effects, widening health inequalities.<sup>145</sup> Stakeholders highlight that addressing financial and other family stress, and protecting parents' own mental health, are key to preventing child mental health difficulties.<sup>16,17,19–21,23,25,146,147</sup> Government initiatives have included provision of furlough wages and uplifts to other benefits, which have been obtained by many parents and older adolescents during the pandemic.<sup>2,148</sup> Additionally, free school meal provision during holidays has helped many families.<sup>149</sup> Initiatives from Government and charities have also aimed to help young people find work.<sup>150–152</sup> Other family support has included social and parental mental health care.<sup>126,153,154</sup> Despite current initiatives, the independent COVID-19 Marmot Review concluded that substantial further investment and long-term policies are needed to mitigate health inequalities exacerbated by the pandemic, including in child mental health.<sup>155</sup>

### Interventions for those with difficulties

Increasing rates of treatable mental health difficulties in children, and worsening of mental health in those with pre-existing disorders, highlight the importance of maintaining and expanding child mental healthcare, from primary care to specialist services. However, the pandemic impeded the delivery of healthcare.<sup>156–158</sup> A YoungMinds survey found that 31% of respondents who had accessed mental health support pre-pandemic were not able to access this during the pandemic despite needing it.<sup>89</sup> Most services adapted to offer remote appointments.<sup>159,160</sup> Yet there is little evidence on the effectiveness of remotely delivered child mental health treatments.<sup>161,162</sup> A trial has recently been established to test a remote intervention for child anxiety during the pandemic.<sup>163</sup>

There has also been a focus on providing remote resources typically designed for those with low-level symptoms. Telephone and online support services, including from charities, reported steady or increased engagement.<sup>109,164,165</sup> The Government provided £10.2m to support mental health charities' work during the pandemic.<sup>166–168</sup> Experts co-produced psychoeducation resources, such as videos, with young people, to help children and parents understand how to improve mental health.<sup>169–172</sup> A trial is underway to examine the effectiveness of an app resource for parents of young children.<sup>173</sup>

The NHS Long Term Plan and Green Paper, mentioned above, also include strategies targeted to help children with mental health difficulties.<sup>8–10</sup> Plans involve introducing mental health support teams in schools,<sup>174,175</sup> as well as increasing access to NHS child mental health services and initiating a four-week waiting time standard.<sup>176</sup> To support this work in the pandemic, in March 2021 the Government set out a COVID-19 Mental Health and Wellbeing Recovery Action Plan, which included £79m for child mental health.<sup>177,178</sup> Some stakeholders agree that these measures will lead to important progress. However, they also argue that current plans do not go far enough and lack the ambition needed to fill the large gaps in child mental healthcare.<sup>11–15,179,180</sup> The increased demand for child mental health services during the pandemic has further raised concerns of many stakeholders, who call for more action to make child mental health a top Government and NHS priority.<sup>11–25,181,182</sup>

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