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## Young people’s mental health during the COVID-19 pandemic

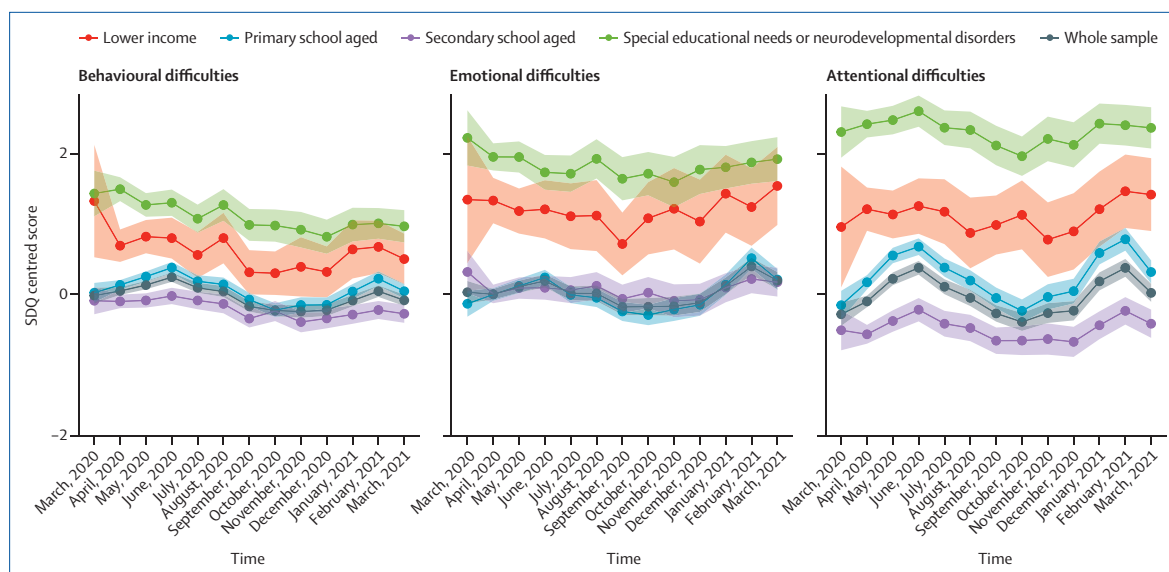


There has understandably been widespread concern about the impact of the COVID-19 pandemic and associated restrictions on the mental health of children and young people, with evidence of recent increases in the prevalence of mental health problems.<sup>1</sup> Yet there has been relatively little evaluation of how mental health has changed over the pandemic and varied for children and young people living in a range of circumstances. One exception is the Co-SPACE study, a UK-based longitudinal online survey of parents and carers of children and adolescents aged 4–16 years, and adolescents aged 11–16 years, who have been invited to participate monthly since the fifth day of the UK’s first national lockdown in March, 2020. Co-SPACE has now run for over a year, and more than 8700 families have provided data using the well validated Strengths

and Difficulties Questionnaire (SDQ).<sup>2</sup> As the study uses convenience sampling and does not have pre-pandemic data, it cannot answer how the pandemic affected the prevalence of mental health problems. Nevertheless, the collection of monthly data from a population with diverse social and demographic backgrounds provides a unique opportunity to examine how things have changed over time throughout the pandemic, and, crucially, for whom.

Between March, 2020, and March, 2021, we have seen clear increases in parent-reported symptoms of SDQ behavioural and attentional difficulties at times of peak restrictions, when most children were not physically attending school (figure).<sup>3</sup> These symptoms increased throughout the first national lockdown (March–June, 2020), decreased and stabilised as

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**Figure:** Changes in parent-reported child mental health difficulties (using the SDQ) in the UK Co-SPACE sample, from March, 2020, to March, 2021. Each SDQ subscale score is grand mean centred. The overall Co-SPACE sample consists of 8752 families (905 [10·3%] on lower income, 5443 [62·2%] with primary school aged (4–10 years) children, 3309 [37·8%] with secondary school aged (11–16 years) children, and 1547 [17·7%] with children with special educational needs or neurodevelopmental disorders). SDQ=Strengths and Difficulties Questionnaire.

For more on the Co-SPACE sample see [https://cospace.oxford.org/wp-content/uploads/2021/04/Report-10\\_05May2021.pdf](https://cospace.oxford.org/wp-content/uploads/2021/04/Report-10_05May2021.pdf)

restrictions eased, increased again from January, 2021, when a further national lockdown was introduced, and then decreased again when most children returned to school in March, 2021. Average adolescent self-reported SDQ symptoms across all examined domains (behavioural, attentional, and emotional), and parent-reported emotional symptoms, were fairly stable over time; however, the highest levels of both parent-reported and adolescent-reported symptoms were when high levels of restrictions were in place and schools were closed to most children.<sup>3</sup>

Strikingly, we have seen greater changes in parent-reported SDQ mental health symptoms (in line with pandemic-related restrictions) among pre-adolescent children (aged 4–10 years), but a more stable pattern among adolescents (11–16 years).<sup>3</sup> This finding needs further exploring; however, two potential contributing factors are isolation from peers and family stress. Notably, the majority of pre-adolescents (but not adolescents) were reported by parents to be cut off from their peers at times of peak restrictions.<sup>4</sup> Stress (assessed with the Depression Anxiety and Stress Scale—21 items<sup>5</sup>) has also been particularly high among parents of pre-adolescents when restrictions have been high.<sup>6</sup> At these times, many parents were juggling home schooling with work demands and domestic commitments, and more than 60% of parents in the Co-SPACE study reported that they did not feel able to meet the needs of both their child and their work.<sup>6</sup> Notably, but unsurprisingly, parental stress was particularly high among single-adult households, among low-income families, and where children had special educational needs or neurodevelopmental disorders.<sup>6</sup> These findings are certainly a cause for concern given the known associations between parental stress, negative family environments, and adverse child outcomes.<sup>7</sup>

Other clear patterns include the very high levels of parent-reported SDQ mental health symptoms among children and young people with special educational needs or neurodevelopmental disorders and those living on low family incomes throughout the pandemic. The strong association between these factors and poor mental health was evident well before the pandemic<sup>8,9</sup> so the elevated symptoms might not be surprising. However, it is particularly concerning that, although we saw overall improvements in parent-reported SDQ mental health symptoms in March, 2021,

as restrictions eased, parents of children with special educational needs or neurodevelopmental disorders and in low-income families continued to report high levels of symptoms.

The Co-SPACE findings complement others, such as the UK National Health Service digital survey, which reported an increased prevalence in mental health problems in July, 2020, compared with 2017, particularly for attentional difficulties among younger boys (aged 5–10 years), and with high rates among families that were struggling financially.<sup>1</sup> The fairly stable pattern that we found for parent-reported and adolescent-reported emotional symptoms was also consistent with a school-based longitudinal study<sup>10</sup> that assessed self-reported anxiety and wellbeing among children and adolescents aged 6–18 years in England between May and November, 2020. Although notably, in that study, average youth self-reported wellbeing was highest during the first national lockdown when most children were not in school, highlighting the need to now examine what accounts for variability in individuals' mental health experiences during the pandemic.

Ultimately, the learnings from the Co-SPACE study are mostly not new. Economic hardship, special educational needs and neurodevelopmental disorders, parental stress, and child and adolescent mental health are closely related. However, the disruption caused by the pandemic has put these risks for child and adolescent mental health in stark relief. Our findings that some groups of children appear to be less likely to bounce back as restrictions have eased brings further cause for concern. The ongoing effects of the pandemic, particularly for the most disadvantaged, underscore the importance of recognising and meeting the support needs of children and families to ensure that inequalities are not widened further and children are given the opportunity to reach their full potential.

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## Time for malaria control in school-age children

School-age children (6–15 years) bear an under-appreciated burden of malaria. Across sub-Saharan Africa, the prevalence of infection peaks in this age group, and an estimated 200 million school-age children are at risk of malaria.<sup>1,2</sup> Infection in this age group not only threatens child health and education, but also serves as a source of onward parasite transmission, undermining elimination efforts.<sup>3</sup> Universal malaria interventions, such as bed nets and access to prompt diagnosis and treatment, are assumed to cover this age group. However, school-age children are the group least likely to benefit from these interventions.<sup>4,5</sup> Thus, interventions specifically targeting this age group are needed. Schools provide ready access to this population and are successfully involved in addressing other health concerns in children, such as feeding for nutritional deficiencies (see the World Food Programme report on state of school feeding worldwide) and deworming campaigns for control of helminth infections (see the WHO Neglected Tropical Disease progress dashboard for preventive chemotherapy diseases).

Why is there no policy to address the high prevalence of malaria infection in school-age children? The yardstick used to measure and prioritise malaria control interventions is a decrease in malaria-related mortality, morbidity, or both. School-age children in endemic countries are at a lower risk of mortality and severe disease than young children. Although it is undeniable that the highest priority must be prevention of malaria and its adverse outcomes in the groups with the highest risk (ie, children younger than 5 years and pregnant women), it is short-sighted not to specifically target

interventions to school-age children. First, although infections in school-age children are often termed asymptomatic, these infections are associated with anaemia, decreased school attendance, and decreased cognitive function. Thus, by addressing the burden of malaria in school-age children, we can support Sustainable Development Goals 3 (promoting health at all ages) and 4 (ensuring quality education). Second, school-age children are an important reservoir of infections that fuel transmission to vector mosquitoes and onward to higher-risk groups.<sup>3</sup> Decreasing infections in school-age children could complement existing vector control interventions to decrease transmission.<sup>6,7</sup> Such complementary interventions are needed in a range of epidemiological settings, but might be especially crucial in high-burden areas where malaria is intransigent to current control measures. Third, as transmission decreases and development of immunity is delayed, overt disease and potentially mortality are likely to increase in older children.<sup>8</sup> Interventions targeting school-age children will prepare us to address this epidemiological shift.

A key barrier to development of a policy to address the burden of malaria in school-age children is determining appropriate interventions and funding. The pool of funding to support malaria control is relatively fixed and is insufficient to achieve the targets of global and national strategic plans to effectively control and eliminate malaria. Thus, there is little appetite to develop a policy for interventions that might compete for available funding. However, the importance of the health of the learner, meaning children older than 5 years and through adolescence, is gaining attention in the development



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For the **WHO World Malaria Report 2020** see <https://www.who.int/publications/i/item/9789240015791>

For the **report on state of school feeding** see <https://documents.wfp.org/stellent/groups/public/documents/communications/wfp257481.pdf>

For the **progress dashboard** see <https://www.who.int/teams/control-of-neglected-tropical-diseases/overview/progress-dashboard-2011-2020>