

## Child and Adolescent Mental Health During the COVID-19 Pandemic

As the 2019 coronavirus (COVID-19) pandemic enters its second year, concerns regarding the mental health of children have begun to increase. Stress due to the disease and its physical effects, economic instability and uncertainty, social justice and racial equity issues, isolation, and regular disruptions to daily life may cause increased mental health difficulties in children and adolescents. Additionally, because the pandemic is forcing many schools to operate remotely or on hybrid schedules (i.e., partial schooling happening in-person and the rest occurring online) more than a year after closures began, there are concerns that children may be experiencing an increased need for mental health services without access to traditional supports (Phelps & Sperry, 2020).

Although research and data on this topic is relatively sparse, understanding if, and how, the pandemic has contributed to mental health difficulties for children is a priority as the pandemic continues to impact many facets of everyday life. This research summary provides a review of current studies examining mental health concerns during the pandemic. There are several limitations to this work that impact the generalizability of the results presented including when the study was conducted, the geographic region of the study, and the sample used. Additionally, most studies do not specifically identify the variables that may have the most impact on mental health and well-being during the pandemic (e.g., mode of instruction, parental unemployment, economic instability, reduced access to care, COVID-related health problems); statements about the specific cause or nature of changes in well-being are hypothetical. Finally, many studies include data from surveys, which can introduce biases and errors that weaken conclusions.

Importantly, the literature review from which this summary is created was conducted in February 2021. New research and data continue to be presented that inform this discussion. As such, depending on when this summary is accessed, it may not constitute the totality of work on this topic.

### Longitudinal studies

#### *United States Sample*

- The US Centers for Disease Control (CDC) found that although total visits to Emergency Departments (ED) in the USA for children under 18 years of age were down, for the period April through October 2020, the proportion of those visits for mental health issues increased. It is unknown whether the results reflect increased mental health problems among youth or a factor of the lower incidence of total ED visits (Leeb et al., 2020).

- A sample of 238 adolescents and their parents in the United States were surveyed. Researchers found that significant increases in self-reported anxiety, depression, and sluggish cognitive tempo, as well as parent-reported inattention, and oppositionality were present when comparing May and June 2020 to pre-pandemic levels. However, all symptom levels returned to pre-pandemic levels except inattention by August 2020 (Breux et al., 2021).
- The US Centers for Disease Control (CDC) found no change in the number of weekly suicide deaths when comparing 2020 (data through October) to rates observed in 2016-2019 (Rossen et al., 2021).
- Behavioral inhibition in toddlerhood and social wariness in childhood predicted increased anxiety following COVID-19 pandemic lockdowns in a sample of 291 young adults from Maryland who completed measures in April and May 2020 (Zeytinoglu et al., 2021).
- A sample of 90 young adults from Los Angeles (18 to 25 years old) in a risk reduction program for homelessness were administered surveys between April and July 2020. 48% reported some mental health symptoms and, among those who used substances prior to the pandemic, 16%-28% reported increased use of alcohol, tobacco, or marijuana. It was not reported what percentage decreased their use of substances (Tucker, D'Amico, Pedersen, Garvey, Rodriguez, & Klein, 2020).

#### *International Sample*

- Researchers in Australia found that parents' pre-existing health conditions, environmental stressors, and a pre-existing diagnosis of Attention-Deficit Hyperactivity Disorder (ADHD) or Autism Spectrum Disorder (ASD) was associated with greater anxiety and depression symptoms during April 2020 in children. However, when compared to pre-pandemic levels, no differences were observed (Westrupp et al., 2020). \*

#### **Cross-sectional studies**

##### *United States Sample*

- In a subsample of parents surveyed between March 15 and March 17, 2020 in New York City, 45.6% observed signs of distress in their children, though the majority said such distress was manageable (Rosen et al., 2020). \*
- The US Centers for Disease Control (CDC) found that children ages 5 to 7 years who received virtual instruction had worsening mental or emotional health when compared to those who received combined or face-to-face instruction. The study was conducted in October and November 2020 and consisted of a sample of 1,561 parents who reported on their children's well-being. Importantly, the majority (no less than 75%) of children had better or no change in mental or emotional health regardless of mode of instruction (Verlenden et al., 2021).

##### *International Sample*

- In a review of studies on children's mental health during the pandemic, conducted in the summer of 2020, the authors found that studies indicated high rates of anxiety, depression, and post-traumatic stress symptoms. No conclusions are made as to whether these rates reflected significant

increases when compared to rates prior to the pandemic. Additionally, the location, sample characteristics, timing, and methodology of the studies in the review vary greatly (de Miranda, da Silva Athanasio, de Sena Oliveira, & Silva, 2020).

- Self-reported mental health ratings declined, indicating worsening mental health, from pre- to post-pandemic in a survey of Canadian adolescents and young adults conducted in April 2020. However, self-reported substance use declined for this sample during that time (Hawke et al., 2020a).
- Canadian adolescents and young adults with pre-existing health conditions and/or symptoms associated with COVID-19 were more likely to meet screening criteria for an anxiety disorder or depression compared to those without a physical health condition. Additionally, for those with a physical health condition, greater declines in mental health were observed during the pandemic when compared to the 3 months prior to the pandemic (Hawke et al., 2020b).
- In a sample of 381 families from Australia, New Zealand, UK, USA, and Canada pandemic stress, parent mental health concerns, harsh parenting behaviors, and low family cohesion predicted declines in child mental health from before the pandemic. This survey occurred mid-April to mid-May 2020 (Whittle, Bray, Lin, & Schwartz, 2020). \*
- In a comparison between gender diverse youth and cisgender youth from Canada, researchers found that gender diverse youth experienced more mental health unmet needs and greater substance use during the early pandemic period (Hawke, Hayes, Darnay, & Henderson, 2021).
- A sample of 1054 Canadian adolescents self-reported their retrospective substance use prior to the pandemic and during April 2020. For substances asked about (i.e., alcohol, vaping, and marijuana) the percentage of users decreased but the frequency of use increased (Dumas, Ellis, & Litt, 2020).
- A survey conducted in February and March of 2020 found that among Chinese students in grades 2 through 6, 22.6% reported depressive symptoms and 18.9% reported anxiety symptoms. Although the authors note this is an increased prevalence compared to surveys conducted prior to the pandemic, no direct comparison is made (Xie, Xue, Zhou, Zhu, Liu, Zhang, & Song, 2020).
- A survey of Chinese high school students, conducted in early March 2020, found that 43.7% endorsed depressive symptoms, 37.4% endorsed anxiety symptoms, and 31.3% endorsed some combination of both anxiety and depression symptoms. This is higher than rates for anxiety and depression symptoms found in other studies conducted prior to the pandemic, though it is unknown whether such increases are significant (Zhou et al., 2020).
- A survey of 3613 Chinese students, aged 7 to 18 years, taken during the pandemic showed that 22.28% reported clinical levels of depression, a higher rate than was typically found prior to the pandemic (Duan, Shao, Wang, Huang, Miao, Yang, & Zhu, 2020).
- In a sample of 310 Chinese children ages 3 to 18 years, surveyed in February 2020, the most observed mental health symptoms were: clinginess (37%), inattention (33%), irritability (32%), worry (28%), and obsessive requests for updates (27%). No comparison to pre-pandemic rates were presented (Jiao et al., 2020).

- A survey of 1264 Chinese primary school students conducted in February and March 2020 found the following prevalence rates of behavior problems: conduct problems (7.0%), peer problems (6.6%), hyperactivity-inattention (6.3%) and emotional problems (4.7%). Those children with anxiety symptoms were found to have an increased likelihood of total difficulty. No comparison is made to rates of pre-pandemic behavior problems (Liu et al., 2021).
- In a sample of 4342 Chinese primary and secondary school students surveyed in March 2020, researchers found that symptoms of anxiety, depression, and stress were most prevalent. However, participants were mostly satisfied with their life and 21.4% became more satisfied during school closures (Tang, Xiang, Cheung, & Xiang, 2021).
- Among a sample of 1500 high school students from Ecuador who were surveyed in April 2020, 68% reported feeling happy, while 16% had scores that indicated major depression (Asanov, Flores, McKenzie, Mensmann, & Schulte, 2020).

### Studies on suicide rates

#### *United States Sample*

- An examination of suicide death rates during the pandemic period (i.e., March through May 2020) in Massachusetts found no difference when those rates were compared to the same period in 2019. This study included individuals of all ages, but no differences in the findings were observed by age (Faust, Shah, Du, Li, Lin, & Krumholz, 2021).
- Suicide ideation and attempt rates in 9092 youth who presented to pediatric emergency departments from January to July 2020 were compared to rates from January to July 2019. Although significant increases in rates were observed for certain months in 2020 (i.e., higher proportion of individuals in emergency departments indicating suicidal ideation and attempts), compared to 2019, it is unclear whether these increases represented higher rates of these behaviors in the community or were due a lower frequency of total emergency department visits during those months (Hill, Rufino, Kurian, Saxena, Saxena, & Williams, 2021).

#### *International Sample*

- The suicide rate (i.e., the number of suicides per month) among Japanese youth under 20 years old was unchanged for the months March through May when comparing 2018, 2019, and 2020. This period (i.e., March through May) coincided with school closures in Japan. Initial school closures in Japan, due to the COVID-19 pandemic, did not impact suicide rates (Isumi, Doi, Yamaoka, Takahasi, & Fujiwara, 2020).

\* Paper accessed as a preprint prior to publication.

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For additional information and resources on the COVID-19 pandemic, please visit NASP's COVID-19 Resource Center at <https://www.nasponline.org/resources-and-publications/resources-and-podcasts/covid-19-resource-center>

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