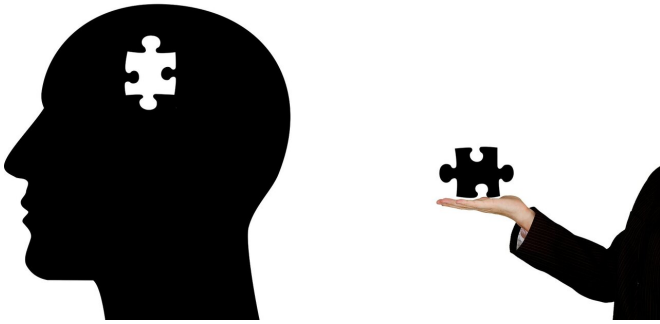


# Researchers size up the mental health toll of the pandemic

13 April 2021, by Brita Belli



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For all the attention paid to the short and long-term physical effects of COVID-19, the disease has serious mental health consequences, too.

In a new report, Yale researchers examine how the pandemic is affecting our brains—in particular the prefrontal cortex, the part of the brain that is involved in decision making, impulse control, and emotional regulation.

For 44 to 66 million disadvantaged Americans, the researchers say, the pandemic is exacerbating existing stressors—including financial insecurity and systemic racism—which impairs prefrontal cortical performance that is critical for regulating emotions and coping, among other functions.

"Even a mild stressor, if you feel out of control about it, initiates a series of chemical reactions that immediately weakens prefrontal connections," said Amy Arnsten, the Albert E. Kent Professor of Neuroscience and Psychology and co-author of the report. "And when that stressor is sustained and chronic, you actually lose those connections. At the same time, stress strengthens some of our more primitive circuits."

The report is published April 12 in *American Psychologist*.

While researchers have known about the [mental health](#) costs of chronic stress, they say this situation is unique because during the pandemic people have also lost many of the social connections and outlets needed to help manage their stress loads.

The researchers call it a [national crisis](#) that requires systemic and policy level interventions that address systemic racism and mental health inequities, as well as family-level interventions that promote what they call "sensitive parenting."

The pandemic, which has stretched on for more than a year with no clear end in sight, more than qualifies as a sustained, chronic stressor, the researchers say. After just a week of chronic stress in mice, Arnsten notes, scientists have detected changes to the prefrontal cortex.

"Scientists are working hard to find the solution to this pandemic. I think it's equally important to think about the less observable aspect of this pandemic, which is mental health," said Ka Shu Lee, a co-author who began this work at the Yale Child Study Center and is now at the University of Oxford.

The work was done as part of Yale's Early Stress and Adversity Consortium, a multidisciplinary group working to understand and combat the impacts of early stress on lifelong health. Last fall, the consortium published a commentary in *Frontiers in Sociology* on mental health equity in the U.S. during the pandemic.

For families already impacted by chronic stressors, the researchers say, the pandemic is a mental health emergency that requires immediate [intervention](#).

"Pre-pandemic, families like these were already

systematically oppressed or not supported in ways researchers said.

that gave them the luxury to engage in sustained, high-quality daily parent-child interactions," said co-author Amanda Dettmer, an associate research scientist at the Child Study Center. "Because of the forced choices—"I have to go to work, I can't afford to take time off to stay with my children"—many families are stuck."

"During COVID, you really need the higher cognitive functions of the [prefrontal cortex](#) to be able to plan and act in ways that don't threaten yourself or others," said Arnsten. "We need to give families the resources they need to feel in control and capable of creating a safe environment."

These breakdowns have real consequences. As the report notes, children lack the structure provided by in-person schooling. Stressed parents are less able to offer emotional support. Children are missing out on crucial developmental milestones. And, added co-author Carla Stover, an associate professor at the Child Study Center, "There's been an increase in calls to the domestic violence hotline [during the pandemic], and a large number of these are first-time callers."

**More information:** Eileen M. Condon et al. Commentary: COVID-19 and mental health equity in the United States, *Frontiers in Sociology* (2020). [DOI: 10.3389/fsoc.2020.584390](https://doi.org/10.3389/fsoc.2020.584390)

Provided by Yale University

The mental health problems caused or exacerbated by the pandemic will not be solved by one-on-one interventions alone, the researchers said. In order to address this national mental [health](#) crisis—particularly its disproportionate burden on people of color—"systemic and policy-level interventions need to happen," Stover said.

Added Dettmer: "Families will not be able to take advantage of evidence-based interventions without the system-level supports required to access them."

Among these, the report recommends: a living wage for all Americans, paid parental leave, expansion of Medicaid and/or universal healthcare, food and housing security, and equitable access to education, including early childhood education and daycare.

At the individual and family level, the report suggests that the federal and state governments invest in parent-focused interventions that can help with stress management and teach coping skills for both parents and children.

At a time when the [pandemic](#) is impairing the prefrontal cortex for so many Americans, such interventions can actually help many of them strengthen function in this critical part of the brain,

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