Researchers find financial strain due to COVID-19 pandemic took significant toll on adolescent mental health

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Longitudinal Mediation analysis examining the pathway between household wage loss reported in May–June 2020 and youth depressive symptoms reported in May 2021. Three longitudinal mediation analyses were run to examine the pathway from household wage loss (at the beginning of data collection; May–June 2020) to depressive symptoms (a year later; May 2021), using mediator data from intermittent survey data (August 2020–March 2021). (A) Mediation Model 1 examines youth-reported financial stress as a mediator. (B) Mediation Model 2 examines familial factors (family conflict, parental monitoring, and parent-reported conflict between family and workplace responsibilities) as mediators. (C) Mediation Model 3 examines both youth-reported financial stress and familial factors as mediators. Sociodemographic data (age, sex, race, ethnicity, pre-pandemic household income) was regressed out of household wage loss (independent variable). General worries about coronavirus were regressed out of youth-reported financial stress (mediator). * indicates P-value less than 0.05. ** indicates P-value less than 0.001. Credit: The Lancet Regional Health - Americas (2022). DOI: 10.1016/j.lana.2022.100391

Financial stress due to the COVID-19 pandemic took a distinct toll on adolescent mental health and contributed to depressive symptoms, according to a new study by researchers at Children's Hospital of Philadelphia (CHOP). The study, published today in The Lancet Regional Health—Americas, found the effect was most pronounced in low-income adolescents but also affected all income groups who experienced financial strain due to loss of income.

"People often think children do not feel or understand financial stress, but this study shows not only that they do, but that this stress also takes a toll on their mental health," said senior author Ran Barzilay, MD, Ph.D., child psychiatrist and an assistant professor at the Lifespan Brain Institute (LiBI) of Children's Hospital of Philadelphia (CHOP) and the Perelman School of Medicine at the University of Pennsylvania.

"Given the strain inflation is likely placing on families' finances, our findings underscore that financial stress is a key risk factor for adolescent mental health during economic crises and that addressing this stress is important given the current global youth mental health crisis."

The COVID-19 pandemic has had a tremendous impact on global public health, but it has also contributed to a global economic crisis, which has both exacerbated financial issues in struggling families and introduced newfound financial strain to many others. Prior research at CHOP and LiBI has shown an association between pandemic-associated income loss and financial stress and depressive symptom in adults.

However, despite an ongoing global youth mental health crisis, there previously was little data on the impact of financial stress on adolescent mental health.
To better understand this relationship, the CHOP researchers analyzed data from 9,720 adolescents who were a part of the Adolescent Brain Cognitive Development Study (ABCD Study), a diverse sample of more than 10,000 U.S. children between the ages of 11 and 14. The researchers investigated the specific association of financial strain with adolescent mental health between May 2020 and May 2021. All participants had pre-pandemic data on household income and mental health.

The researchers found that adolescents whose families lost wages due to the pandemic were more likely to be Black (19.5% vs. 12.2%), Hispanic (22.0% vs. 12.9%), and below the poverty line (15.2% vs 4.2%) than those who did not. Those groups also expressed greater levels of stress about the financial impacts of the pandemic. Both pandemic-related wage loss and financial stress were more prevalent among youth with lower pre-pandemic household income—in other words, the poor were more likely to become poorer, with greater negative impacts on mental health.

Youth from families who lost wages, regardless of pre-pandemic income, reported more depressive symptoms compared to those from families who did not lose wages; they also reported experiencing more perceived stress. The association between financial stress and depressive symptoms was significant even when accounting for pre-pandemic mental health.

In addition to establishing an association between financial stress and depressive symptoms, the researchers also wanted to better understand the mechanics of how wage loss contributes poor adolescent mental health. To do so, they analyzed longitudinal data to identify factors that mediate the path from household pandemic-related wage loss at the beginning of the pandemic to youth’s depressive symptoms a year later.

They found that both the youth's subjective financial stress as well as family conflict contributed to poor adolescent mental health, suggesting that financial hardship impacts children and adolescents through a complex network of indirect pathways.

"Although this research focused specifically on pandemic-related wage loss, we suspect financial strain is a broader mental health risk factor for children and adolescents that is relevant during any time of economic uncertainty," Dr. Barzilay said. "Future studies should look at targeting youth's financial stress and family conflict to ease the mental health impact of difficult financial circumstances."


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