

COMMENT



Legislative remedies to mitigate the national emergency in pediatric mental health

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The coronavirus disease (COVID) pandemic not only unmasked the growing pediatric mental health crisis but also placed it firmly in the national spotlight. In this issue, Sarid et al. review the prevalence of psychiatric outcomes in infants who received antenatal corticosteroid treatment for threatened preterm delivery but ultimately delivered at late preterm or term gestation.¹ Though acknowledged bias exists in the three studies included in the review, the work proposes an association between antenatal corticosteroid exposure and later mental health morbidity and suggests the need for greater investigation into the long-term sequela of babies born to mothers who receive this common treatment. In the largest study reviewed, antenatal steroid treatment with subsequent term delivery increased risk of diagnosis with any mental health/behavioral disorder through early childhood.²

The prevalence of mental health conditions in childhood has increased over time.³ Even prior to the onset of COVID-19, pediatricians were the first to draw attention to the incoming wave of mental health challenges facing children. From 2003 to 2012, rates of children ever receiving a diagnosis of anxiety or depression increased in the United States from 5.4 to 8.4%.⁴ Just prior to the pandemic, an estimated 5.8 million children (9.4% of the population of children aged 3–17 years) had anxiety and 2.7 million (4.4%) carried a diagnosis of depression.⁵ But mental health risks are not evenly distributed across age groups in the United States. Adolescents bear the majority of mental health comorbidity. From 2018 to 2019, almost 37% of 12–17 year olds reported feelings of sadness or hopelessness, 15% experienced a major depressive disorder, and 1 in 25 suffered from a substance use disorder.^{5,6} More frightening, almost 9% attempted suicide, with 15.7% having made a suicide plan.⁵ Limited access to care compounded these mental health risks. Twenty to forty percent of children with depression and anxiety respectively were not able to access treatment.⁶

A tsunami on top of a tidal wave, the COVID pandemic caused marked deteriorations in child mental health globally—the result of quarantine measures, social isolation, and disconnection from school⁷ (Fig. 1). In a meta-analysis of 29 studies spanning 11 countries and including over 800,000 children, international rates of depression were 25% with a 20% prevalence of anxiety—a doubling of pre-pandemic levels.⁸ Moreover, these effects existed across all regions, with a prevalence of anxiety symptoms ranging from 17% in East Asia to 34% in Europe and 22% to 35% for

depressive symptoms in children from these same regions.⁸ In the United States, 27% of parents reported that their own mental health worsened, and concurrently, 14% noted the behavioral health of their children deteriorated.⁹ In another survey of US parents, 71% reported that the pandemic adversely affected their child's mental health.¹⁰ Emergency room use for mental health services during the pandemic surged by 24% and 31% in children and adolescents, respectively.¹¹ These factors are overburdening a US health care system already insufficient to meet even pre-pandemic pediatric mental health care needs, when the percentages of children receiving outpatient mental health services had increased from 9.2% to 13.3% from 1996 to 2012.^{12,13}

With a shortage of mental health providers, wait times for services are measured in months and mental health services are shifting to the emergency room and inpatient service.¹⁴ Exacerbating the overall shortage of mental health providers is their underrepresentation in Medicaid—the largest insurer of American children.¹⁵ Medicaid is a United States federal–state partnership to provide health insurance coverage to patients from low socio-economic levels. Eligibility is income based, with thresholds set by individual states. States which accepted federal Medicaid Expansion beginning in 2010 must provide Medicaid coverage to individuals up to a minimum of 138% federal poverty level.¹⁵ During the pandemic, maintenance of effort provisions—which preclude children from losing coverage during the public health emergency because their parents did not re-enroll in the program—were tied to federally provided COVID relief funds and led to an increase in the percentage of children insured under Medicaid. Public coverage increased by 11% during the pandemic and 4 million children moved from employee-sponsored insurance coverage into Medicaid or the Children's Health Insurance Program.¹⁶ Though access issues abound for both privately and publicly insured children, since a large percentage of mental health physicians in the United States do not accept Medicaid, this leaves a large percentage of children only further underserved and contributed to the American Academy of Pediatrics' declaration of a National State of Emergency in Children's Mental Health.^{17,18}

The federal response to these challenges includes a dramatic increase in the number and scope of bills related to pediatric mental health (Fig. 2). In the two Congresses (116th and 117th) that have spanned the pandemic, 84 and 71 bills, respectively, related to child mental health have been introduced, addressing

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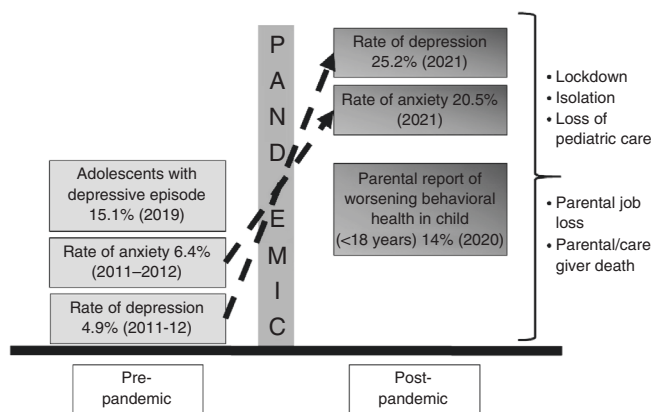


Fig. 1 The COVID-19 pandemic and pediatric mental health. A schematic view of the acute increase in mental health in the pediatric population associated with the pandemic. Data from refs. ^{3-6, 9}

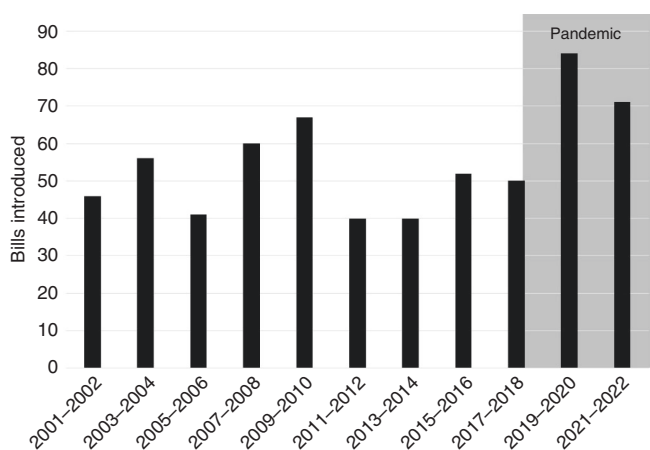


Fig. 2 Number of Congressional bills introduced related to pediatric mental health. The number of legislative bills per Congress introduced with the subject “Pediatric Mental Health.” Obtained from keyword search “Pediatric Mental Health,” from congress.gov.

different aspects of the crisis, from workforce issues to access to care for marginalized groups to care coordination with primary care physicians.¹⁹⁻²¹ The recent Senate Bipartisan Safer Act, which made modest reforms to reduce the impact of gun violence, included \$40 million dollars to 10 states for demonstration projects aimed at expanding children’s mental health services, including use of telehealth services.²²

Among these proposals, two bills deserve special consideration. The Supporting Children’s Mental Health Care Access Act (HR 7076/S3864) reauthorizes the existing Pediatric Mental Health Care Access Program, which provides primary care pediatricians rapid child mental health consultation. In the current climate of increasing mental health care screening in the primary care setting and continued decreased access to specialists, reauthorization of the program at an increased funding level is critical.²³ The proposed increase in funding to \$14 million from \$11 million is a modest federal increase given the magnitude of the problem. Further, the program has already demonstrated success, providing support to 45 states, the District of Columbia, and Tribal Organizations.²⁴ The peer-to-peer consultation model utilized by most of these funding recipients is known to improve health care delivery. After adjusting for covariates such as income, Stein et al. demonstrated that children in states with primary care telehealth access to behavioral health specialists increasingly accessed such

services.²⁵ Though the effect was modest, 12.3% accessed services in the states with programs compared to 9.5% in those without, the care model shows promise to partially alleviate the inadequacy of child mental health access.

In Colorado, for example, funding from this program increased consultations from ~400 in 2020 to ~700 in 2021, with 12% of these consultations resulting in mental health referrals and ~20% requiring a change in medication regimen.²⁶ Mirroring the disproportionate impact on teenagers, over 50% of telehealth consultations through the program were for adolescents.²⁶ To be even more effective, funds should be dispersed to all states, and programs expanded to allow for inclusion of emergency room physicians and staff from urgent care centers and other medical locations where children-in-need may present.

Another support system for children’s mental health occurs in schools. School disruption was a dominant social stressor, catalyzing feelings of social isolation. Schools are an ideal arena to provide services. Delivery of mental health care in schools prevents interruption of the educational day, facilitates continuity of care, and allows mental health providers ready access to teachers, counselors, and other non-family members with whom children spend large amounts of time.²⁷ Prior to the pandemic, of the 40% adolescents with a depressive episode and access to care, two-thirds received only school-based services.²⁸ Receipt of care in school reduces the stigma of mental health issues and improves academic performance.^{27,29} Though few schools have all needed resources, significant disparities again exist in access to school-based behavioral health care. Only 50% of US schools have on-site counseling with large differences based on region, community wealth, and geography—with rural school districts more frequently shortchanged.³⁰ Most schools simply lack the ability to sufficiently provide what children increasingly require.¹³ Meeting the needs of school to utilize their full potential in addressing this crisis requires substantial further investment.

The Youth Mental Health and Suicide Prevention Act (HR 1803/S3628) would directly fund telehealth services, training programs and other aspects of school-based behavioral health promotion. The bill has potential to mitigate disparities in access to care and support clinicians who are overwhelmed with rising mental health needs at a time when suicide is the second-leading cause of death in children aged 10–14 years.³¹ As advocacy on behalf of children is fueled by coalitions, support for improving the mental health infrastructure of schools is an issue in which schools, teacher organizations, psychologists, pediatricians, primary care providers, and mental health advocacy groups can partner.

In Europe, the response to the crisis was similarly based on increasing access to care and by improving training for mental health workers. A report released by the United Nations International Children’s Emergency Fund outlined five major actions European nations could take to ameliorate mental health challenges.³² In addition to investing in mental health training for social workers and easing access for vulnerable populations such as refugee and immigrant children, the report also noted the unique ability of digital technologies such as telehealth to bridge the divide in mental health services. Further, both the United States and European response note the vital role schools can play in detecting children at risk for mental health issues and providing timely treatment with minimal interference with primary education.³² The World Health Organization has also pledged to create resources and share information between nations to improve rates of child and adolescent health, with the hope of having more nations allow adolescent to obtain services without parental consent.³³

The babies included in the studies reviewed by Sarid et al. may bear an increased risk for behavioral health issues, but they will grow up in a post-pandemic work of exaggerated social stressors and worsening mental health issues. Models such as the Pediatric Mental Health Care Access Program exist that can diminish the

load of the mental health burden on children, parents, families, teachers, and primary care doctors. However, these tools are sub-optimal without adequate financing. As pediatricians continue to encounter behavioral health problems, these federal supports are needed to strengthen the community safety net for children.

DATA AVAILABILITY

This paper does not include new data.

REFERENCES

- Sarid, E., Stoopler, M., Morency, A. M. & Garfinkle, J. Neurological implications of antenatal corticosteroids on late preterm and term infants: a scoping review. *Pediatr. Res.* (this issue).
- Raikkonen, K., Gissler, M. & Kajantie, E. Associations between maternal antenatal corticosteroid treatment and mental and behavioral disorders in children. *JAMA Netw. Open* **3**:23, 1924–1933 (2020).
- Perou, R. et al. Mental health surveillance among children – United States, 2005–2011. *MMWR Suppl.* **62**, 1–35 (2013).
- Bitsko, R. H. et al. Epidemiology and impact of health care provider-diagnosed anxiety and depression among US children. *J. Dev. Behav. Pediatr.* **39**, 395–403 (2018).
- Bitsko, R. H. et al. Surveillance of children's mental health – United States, 2013 – 2019. *MMWR Suppl.* **71**, 1–42 (2022).
- Ghandour, R. M. et al. Prevalence and treatment of depression, anxiety, and conduct problems in US children. *J. Pediatr.* **206**, 256–267.e3 (2019).
- Benton, T., Njoroge, W. F. M. & Ng, W. Y. K. Sounding the alarm for children's mental health during the COVID-19 pandemic. *JAMA Pediatr.* **176**, e216295 (2022).
- Racine, N. et al. Global prevalence of depressive and anxiety symptoms in children and adolescents during COVID-19: a meta-analysis. *JAMA Pediatr.* **175**, 1142–1150 (2021).
- Patrick, S. W. et al. Well-being of parents and children during the COVID-19 pandemic: a national survey. *Pediatrics* **146**, e2020016824 (2020).
- Lurie Children's Hospital. Children's mental health during the COVID-19 pandemic. <https://www.luriechildrens.org/en/blog/childrens-mental-health-pandemic-statistics/> (2021).
- Leeb, R. T. et al. Mental health-related emergency department visits among children aged <18 years during the COVID-19 pandemic - United States, January 1-October 17, 2020. *MMWR Morb. Mortal. Wkly Rep.* **69**, 1675–1680 (2020).
- Olfson, M., Druss, B. G. & Marcus, S. C. Trends in mental health care among children and adolescents. *N. Engl. J. Med.* **372**, 2029–2038 (2015).
- Pearrow, M. et al. Behavioral health capacity of Massachusetts public school districts: technical report. https://www.umb.edu/birch/research_evaluation (2020).
- Mapelli, E., Black, T. & Doan, Q. Trends in pediatric emergency department utilization for mental health-related visits. *J. Pediatr.* **167**, 905–910 (2015).
- Shah, S., Kuo, A. A. & Brumberg, H. L. First aid for Medicaid: losses in children's health insurance. *Pediatr. Res.* **89**, 8–11 (2021).
- Alker, J. & Brooks, T. Millions of children may lose Medicaid: what can be done to help prevent them from becoming uninsured. Georgetown University Health Policy Institute Center for Children and Families. <https://ccf.georgetown.edu/2022/02/17/millions-of-children-may-lose-medicaid-what-can-be-done-to-help-prevent-them-from-becoming-uninsured/> (2022).
- American Academy of Pediatrics, American Academy of Child and Adolescent Psychiatry & Children's Hospital Association. A declaration of a national emergency in child and adolescent mental health. <https://www.aap.org/en/advocacy/child-and-adolescent-healthy-mental-development/aap-aacap-cha-declaration-of-a-national-emergency-in-child-and-adolescent-mental-health/> (2022).
- Bishop, T. F., Press, M. J., Keyhani, S. & Pincus, H. A. Acceptance of insurance by psychiatrists and the implications for access to mental health care. *JAMA Psychiatry* **71**, 176–181 (2014).

ON BEHALF OF THE PEDIATRIC PUBLIC POLICY COUNCIL

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- Investment in Tomorrow's Pediatric Health Care Workforce Act. 116th Congress. <https://www.congress.gov/bill/116th-congress/senate-bill/2443?q=%7B%22search%22%3A%5B%22S2443%22%2C%22S2443%22%5D%7D&s=3&r=1> (2022).
- Defending Access to Mental Health Care Act. 116th Congress. <https://www.congress.gov/bill/116th-congress/senate-bill/1668/text?r=2> (2022).
- Behavioral Health Coordination and Communication Act of 2021. 117th Congress. <https://www.congress.gov/bill/117th-congress/house-bill/1385?r=1&s=5> (2022).
- Bipartisan Safer Communities Act. 117th Congress. <https://www.congress.gov/bill/117th-congress/senate-bill/2938/text?q=%7B%22search%22%3A%5B%22Bipartisan+SAFER+Act%22%2C%22Bipartisan%22%2C%22SAFER%22%2C%22Act%22%5D%7D&r=1&s=6> (2022).
- Supporting Children's Mental Health Care Access Act of 2022. 117th Congress. <https://www.congress.gov/bill/117th-congress/house-bill/7076/text?q=%7B%22search%22%3A%5B%22HR+7076%22%2C%22HR%22%2C%227076%22%5D%7D&r=1&s=7> (2022).
- Health Resources and Services Administration. Maternal and child health. Pediatric Mental Health Care Access (PMHCA) Program. Funded projects. <https://mchb.hrsa.gov/training/projects.asp?program=34> (2022).
- Stein, B. D., Kofner, A., Vogt, W. B. & Yu, H. A national examination of child psychiatric telephone consultation programs' impact on children's mental health care utilization. *J. Am. Acad. Child Adolesc. Psychiatry* **58**, 1016–1019 (2019).
- Colorado Pediatric Psychiatry Consultation and Access Program. Services. Infographic. <https://www.coppcap.org/infographic> (2022).
- Children's Hospital of Philadelphia PolicyLab. Building and sustaining program for school-based behavioral health services in K-12 schools. <https://policylab.chop.edu/tools-and-memos/building-and-sustaining-programs-school-based-behavioral-health-services-k-12> (2022).
- National Association of School Psychologists. Comprehensive school-based mental and behavioral health services and school psychologists. <https://policylab.chop.edu/tools-and-memos/building-and-sustaining-programs-school-based-behavioral-health-services-k-12> (2022).
- Sanchez, A. L. et al. The effectiveness of school-based mental health services for elementary-aged children: a meta-analysis. *J. Am. Acad. Child Adolesc. Psychiatry* **57**, 153–165 (2018).
- Slade, E. P. The relationship between school characteristics and the availability of mental health and related health services in middle and high schools in the United States. *J. Behav. Health Serv.* **30**, 382–392 (2003).
- Centers for Disease Control and Prevention. Suicide prevention. Disparities in suicide. <https://www.cdc.gov/suicide/facts/disparities-in-suicide.html#> (2022).
- Keeley, B. et al. The state of the world's children 2021. On my mind: promoting, protecting and caring for children's mental health. UNICEF. <https://www.unicef.org/lac/media/28726/file/SOWC2021-full-report-English.pdf> (2022).
- Mental health and COVID-19: early evidence of the pandemic's impact: scientific brief. https://www.who.int/publications/i/item/WHO-2019-nCoV-Sci_Brief-Mental_health-2022.1 (2022).

COMPETING INTERESTS

The author declares no competing interests.

ETHICS APPROVAL AND CONSENT TO PARTICIPATE

Patient consent was not required for this paper.

ADDITIONAL INFORMATION

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