

COVID-19 Impacts on Child and Youth Anxiety and Depression: Challenges and Opportunities

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As a result of the COVID-19 pandemic, disaster psychiatry is becoming a core component of work for mental health professionals around the world. It requires a new flexibility in how we practice and in the interventions we deliver. While this pandemic shares some elements with the 2003 SARS pandemic,¹ the differences are massive in scale, and as such, warrant specific consideration, especially in view of the extent of international impact, prolonged social isolation orders, the unprecedented economic devastation, and the closure of schools and universities.²

The potential impact of the COVID-19 pandemic on mental health in the community was thoroughly described in the *Canadian Journal of Psychiatry* editorial by Vigo et al.³ Here, we focus on the impact of the pandemic on the mental health of children and adolescents, with particular attention to depression and anxiety.

When infected with COVID-19, children and adolescents experience milder symptoms, fewer hospital admissions, and a lower fatality rate.^{4,5} However, health care workers who see young people should remain vigilant. First, as access to health services are more restricted, a variety of physical conditions may not be treated optimally, potentially leading to increased child mortality, particularly in regions with a paucity of resources.⁶ Second, a hyperinflammatory state, similar to Kawasaki disease, has been associated with COVID-19 infection in young people.⁷ Third, and the focus of this article, is the mental health impact of the pandemic on children and adolescents. Children and youth are highly vulnerable to the impact of sustained stressors during developmentally sensitive times, and thus, their mental health during and after the pandemic warrants special consideration.^{8,9}

Depression and anxiety are among the most common mental disorders in children and youth,¹⁰ with significant functional impairment¹¹ and an associated risk of suicide.¹² An early study from China has suggested an early increase in the

prevalence of these disorders associated with COVID-19,¹³ though the full impact is presently unknown. We discuss below the expression, detection, and management of child and adolescent depression and anxiety disorders during the COVID-19 pandemic and possible mitigation strategies.

The typical development and expression of mood and anxiety problems will change as the impact of COVID-19 evolves. At an individual level, children and youth have suddenly lost many of the activities that provide structure, meaning, and a daily rhythm, such as school, extracurricular activities, social interactions, and physical activity. Over a sustained period, these losses may worsen depressive symptoms and may further entrench the social withdrawal, anhedonia, and hopelessness that are already part of these disorders. We also expect a shift in anxious preoccupations from higher-order needs—such as self-esteem and expression—to basic needs—such as food, shelter, and physical safety. Given the concerns regarding contagion, the pandemic may also exacerbate specific types of anxiety, including specific phobias, obsessive-compulsive disorder, and generalized anxiety related to unpredictable and frightening situations. Conversely, the same disruption may temporarily alleviate some anxiety symptoms associated with social anxiety, performance anxiety related to schoolwork, or agoraphobia. However, we expect this short-term symptomatic improvement to be followed by a worsening in symptoms once normal activities resume, similar to what many children

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with these disorders experience during the summer break and in September when school resumes.

Child and youth mental health is markedly influenced by the family system, and family interactions have been profoundly affected by the pandemic. With prolonged home confinement, the family environment may become a key risk factor for the mental health of some children and youth. Some parents are grappling with the new stresses of supervising the education and activities of their children with few external supports, while simultaneously experiencing their own economic, emotional, and social losses. Parents are essential to buffering their children's stresses, helping them to manage their feelings and make sense of their own experiences. However, this buffering requires a parent who is sufficiently emotionally and physically resourced to do so. With parents increasingly experiencing their own demoralizing losses (e.g., lost jobs, death of loved ones, worsening of their own mental health and substance use) their ability to buffer their children's stresses inevitably diminishes over time, increasing the risk that this pandemic becomes traumatic for children and youth, with enduring emotional consequences. Domestic violence concerns also need to be considered.¹⁴ Although to our knowledge there are not yet published peer-reviewed data, there are strong early indicators that intimate partner violence has increased in recent weeks,¹⁵ according to police and service provider reports. Alarming, although reports of child maltreatment have gone down, the expectation is that child maltreatment may have actually increased.¹⁶ During this pandemic, children and youth have lost contact not only with their peers but also with their extended communities of protective adults (e.g., teachers) who may notice signs of abuse and distress. As comorbid trauma significantly worsens the prognosis of other mental disorders,^{17,18} the long-term outcomes of anxiety and mood disorders are also likely to be poorer.

We also need to evaluate the impact of the closure or reduction of many child and youth mental health services such as inpatient units in general hospitals. In many jurisdictions, child and youth mental health bed closures occurred to free system resources for COVID-19 patients. For example, there has been a 60% reduction in such beds in the Greater Toronto Area (Alice Charach 2020, personal communication). While this was necessary in the short term, some children and youth continue to require access to more intensive inpatient treatment for mental illness. During the first wave of the pandemic, clinical resources and research have justifiably been directed toward the physical aspects of COVID-19. We now need to refocus clinical care and research on the detection and mitigation of the mental health impact of the COVID-19 pandemic on children and youth.

The response to the COVID-19 pandemic impedes the detection of mood and anxiety disorders. While child and youth mental health has long been underresourced,¹⁹ the pandemic may further exacerbate this issue. Routine primary care and nonemergency mental health care have both decreased in response to public health directives to reduce

“nonessential” services. Thus, clinicians who could detect and treat mental illness in the early stages of disorder development are seeing fewer children and youth. Furthermore, behaviors that may otherwise be red flags for emotional distress, such as physical distancing and decreased activity, are promoted as desirable and adaptive. For example, at the time of this writing, the COVID-19 “Stop the Spread” government of Ontario website recommends “avoiding contact with others” and “staying home.”²⁰ Doing less schoolwork, withdrawing from peers and having increased baseline anxiety are other symptoms that may now be attributed, rightly or wrongly, to a normative reaction to the pandemic. Risk assessment for self-harm has also become more challenging, particularly as appointment frequency may be decreased and the switch to telemedicine may decrease the comprehensiveness of some assessments.

Given the expected increase in incidence of mood and anxiety disorders associated with the COVID-19 pandemic, access to mental health care for children and youth is paramount. The crisis is forcing the field to utilize innovations in service delivery, some of which will change the way we practice well beyond the pandemic. Traditional elements of therapy, such as behavioral activation and exposure treatments need to be adapted; families can be advised to implement creative forms of activation and exposure (see www.covidwithkids.org). Developing new routines, use of home-based physical exercise, arts and crafts projects, or video-based social gatherings are other examples of alternative therapeutic strategies. Clinicians can also explicitly explore and address parental losses and stresses as part of the biopsychosocial formulation.

The physical distancing measures have mandated a rapid uptake of telepsychiatry and the use of other Internet-based interventions delivered to children and youth not traditionally considered “hard to reach.” While telepsychiatry is hardly new, the extent of its use has sky-rocketed. Clinicians and organizations previously hesitant to use these modalities are quickly adopting them.²¹ A handful of randomized controlled trials (RCTs) indicate that Internet-based care can be effective in treating depressed youth.^{22,23} To promote physical distancing, most group therapies have ceased. Although we are not aware of any RCTs for Internet-delivered group treatment in children and adolescents, the technology to run such groups exists and it should be implemented and evaluated. Group treatment holds the added promise of increasing social connection among youth who have lost the opportunity to interact with their peers. Therapeutic interventions can be broadened to include online psychoeducation resources, prerecorded guided practices, mental health apps, and self-directed mental health therapies.²⁴ A number of new online resources have been rapidly developed for children, youth, and their families, recognizing that they now require direct access to strategies and information that they might previously have received from a health care provider.^{25,26}

Some factors may lower the risk of deterioration of mental health and lead to resilience in the face of this crisis. Many

children and youth, who usually spend much of the day apart from their parents, are now spending almost all their time with them. Parents therefore have increased opportunities to check in with and help their kids. Symptoms and signs of anxiety and depression that were previously unseen may become more obvious. This could stimulate a discussion about the stress of living under social isolation and lead to help-seeking behavior. Parents can also intentionally monitor their youth's mood and behavior; with the knowledge that this is a stressful time, they may have greater sensitivity to observe symptoms of anxiety and depression. Hopefully, this will lead to earlier detection and access to services. The frequency and nature of family-based activities have inevitably changed in the context of the pandemic. This presents an opportunity for enhanced family cohesiveness that could have a positive impact on the mental health of the entire family.

Caregivers should be counseled to use this experience to "rally around a common cause" and demonstrate altruism as a healthy coping strategy. Caregivers can exemplify the philosophy "when there is a crisis, we encourage each other and work together to solve problems," as opposed to "when there is a crisis, we fall apart." This modeling will help build resilience in young people. For example, having children and youth join in neighborhood activities, like the scheduled banging of pots and pans to cheer on health care workers²⁷ can mitigate some of the anxiety experienced. There is evidence of other catastrophic events being followed by improved select mental health outcomes, possibly by such a mechanism.²⁸

Given the unprecedented and rapidly evolving nature of the COVID-19 pandemic, its impact on child and youth internalizing disorders remain highly uncertain.¹ Inferring a relationship between a novel environmental factor and a change in mental health is tentative; demonstrating any causation in such relationship is methodologically arduous.²⁹ Child and adolescent psychiatrists, pediatricians, and primary care providers need to be highly attuned to the mental health of the population of young people, especially those with preexisting depression and anxiety; they also need to monitor and study the potential effects of the pandemic and optimize intervention to prevent or mitigate negative effects.

Authors' Note

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References

1. Pfefferbaum B, North CS. Mental health and the COVID-19 pandemic. *N Engl J Med*. 2020;38:510-512. doi: 10.1056/NEJMp2008017.
2. Lee J. Reflections feature mental health effects of school closures during COVID-19. *Lancet Child Adolesc Health*. 2020; 4(6):421.
3. Vigo D, Patten S, Pajer K, et al. Mental health of communities during the COVID-19 pandemic *Can J Psychiatry*. 2020; 65(10):681-687. doi: 10.1177/0706743720926676.
4. Salje H, Kiem CT, Lefrancq N, et al. Estimating the burden of SARS-CoV-2 in France. *Science*. 2020;369(6500):208-211. doi:10.1126/science.abc3517.
5. Ludvigsson JF. Systematic review of COVID-19 in children shows milder cases and a better prognosis than adults. *Acta Paediatrica*. 2020;109(6):1088-1095.
6. Robertson T, Carter ED, Chou VB, et al. Early estimates of the indirect effects of the COVID-19 pandemic on maternal and child mortality in low-income and middle-income countries: a modelling study. *Lancet Global Health*. 2020; 8(7):E901-E908. doi: 10.1016/S2214-109X(20)30229-1.
7. Riphagen S, Gomez X, Gonzalez-Martinez C, Nick W, Parakevi T. Hyperinflammatory shock in children during COVID-19 pandemic. *Lancet*. 2020;395(10237):1607-1608.
8. Romeo RD. The impact of stress on the structure of the adolescent brain: implications for adolescent mental health. *Brain Res*. 2017;1654(Pt B):185-191.
9. Fox SE, Levitt P, Nelson III CA. How the timing and quality of early experiences influence the development of brain architecture. *Child Develop*. 2010;81(1):28-40.
10. Merikangas KR, He J-P, Burstein M, et al. Lifetime prevalence of mental disorders in U.S. adolescents: results from the National Comorbidity Survey Replication-Adolescent Supplement (NCS-A). *J Am Acad Child Adolesc Psychiatry*. 2010; 49(10):980-989.

11. Gore FM, Bloem PJN, Patton GC, et al. Global burden of disease in young people aged 10-24 years: a systematic analysis. *Lancet*. 2011;377(9783):2093-2102.
12. Renaud J, Berlim MT, McGirr A, Tousignant M, Turecki G. Current psychiatric morbidity, aggression/impulsivity, and personality dimensions in child and adolescent suicide: a case-control study. *J Affect Disord*. 2008;105(1-3):221-228.
13. Xie X, Xue Q, Zhou Y, et al. Mental health status among children in home confinement during the coronavirus disease 2019 outbreak in Hubei Province, China. *JAMA Pediatrics*. 2020 Apr 24. [Epub ahead of print]. doi: 10.1001/jamapediatrics.2020.1619.
14. Substance Abuse and Mental Health Services Administration (SAMSHA). Intimate partner violence and child abuse considerations during COVID-19. 2020; [accessed 2020 Apr 26]. <https://www.samhsa.gov/sites/default/files/social-distancing-domestic-violence.pdf>.
15. Taub A. A new COVID-19 crisis: domestic abuse rises worldwide. *New York Times*. 2020; [accessed 2020 Apr 15] <https://www.nytimes.com/2020/04/06/world/coronavirus-domestic-violence.html>.
16. Santhanam L. Why child welfare experts fear a spike of abuse during COVID-19. PBS News Hour. 2020; [accessed 2020, Apr 18]. <https://www.pbs.org/newshour/health/why-child-welfare-experts-fear-a-spike-of-abuse-during-covid-19>.
17. Bernet CZ, Stein MB. Relationship of childhood maltreatment to the onset and course of major depression in adulthood. *Depress Anxiety*. 1999;9(4):169-174.
18. Hovens JGFM, Wiersma JE, Giltay EJ, et al. Childhood life events and childhood trauma in adult patients with depressive, anxiety and comorbid disorders vs. controls. *Acta Psychiatr Scand*. 2010;122(1):66-74.
19. Limb M. Children are being failed by substandard mental health services. *BMJ Br Med J*. 2017;358:j3641.
20. COVID-19: Stop the Spread. Government of Ontario; 2020. [updated 2020 May 14; accessed 2020 May 17] <https://www.ontario.ca/page/covid-19-stop-spread>
21. Nagata JM. Rapid scale-up of telehealth during the COVID-19 pandemic and implications for subspecialty care in rural areas. *J Rural Heal*. 2020 Apr 3. [Epub ahead of print]. doi: 10.1111/jrh.12433.
22. Topooco N, Berg M, Johansson S, et al. Chat- and internet-based cognitive—behavioural therapy in treatment of adolescent depression: randomised controlled trial. *B J Psych Open*. 2018;4(4):199-207.
23. Topooco N, Byléhn S, Nysäter ED, et al. Evaluating the efficacy of internet-delivered cognitive behavioral therapy blended with synchronous chat sessions to treat adolescent depression: randomized controlled trial. *J Med Internet Res*. 2019;21(11):e13393.
24. Wind TR, Rijkeboer M, Andersson G, Riper H. The COVID-19 pandemic: the “black swan” for mental health care and a turning point for e-health. *Internet Inter*. 2020;20:100317.
25. Dundas S, Holiff J, Ooi C, Philipp D, Watson P, Zarb T. COVID with kids. 2020. [accessed 2020 Apr 25] covidwithkids.org.
26. World Health Organization. Parenting in the time of COVID-19. 2020. [accessed 2020 Apr 25] <https://www.who.int/emergencies/diseases/novel-coronavirus-2019/advice-for-public/healthy-parenting>.
27. Aguilar B. Upper Beaches neighbourhood bangs pots, pans to cheer for healthcare workers. CP24 News; 2020 [accessed 2020 Apr 23] <https://www.cp24.com/news/upper-beaches-neighbourhood-bangs-pots-pans-to-cheer-for-healthcare-workers-1.4872913>.
28. Claassen CA, Carmody T, Stewart SM, et al. Effect of 11 September 2001 terrorist attacks in the USA on suicide in areas surrounding the crash sites. *Br J Psychiatry*. 2010;196(5):359-364.
29. Rutter M. Identifying the environmental causes of disease: how should we decide what to believe and when to take action? Report synopsis. Academy of Medical Sciences; 2007. [accessed 2020 May 21] <https://acmedsci.ac.uk/file-download/34654-119615475058.pdf>.