

Surveillance Highlights

Anorexia nervosa: A paediatric health crisis during the COVID-19 pandemic

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CASE

A 15-year-old male was hospitalized for a rapid 16 kg weight loss over 2 months and bradycardia. He was well until March 2020, but with the onset of the COVID-19 'lockdown', he started to 'eat healthy', avoid high-calorie foods, and engage in excessive exercise. He spent more time on social media searching 'exercise' websites to learn how to avoid weight gain. His parents noted that he was quieter than usual and irritable. He told his parents that he was 'lonely'. He also described being tired, dizzy, and constipated. His parents noticed he was losing weight and wanted him assessed by his paediatrician, but they did not seek help for fear of contracting COVID-19.

Three months after the start of lockdown, the parents brought their son to the emergency room. On physical examination, he appeared pale and emaciated. His weight was 41 kg (3rd percentile and 72% of his calculated treatment goal weight [1]) and his height was 173 cm (50th to 75th percentile). His orthostatic vital signs showed a heart rate of 36 bpm (supine) and 50 bpm (standing) and his blood pressure was 90/40 (supine) and 92/46 (standing). His oral temperature was 35.7°C. His hands and feet were acrocyanotic and his pedal pulses were weak. Laboratory investigations were within normal limits. Electrocardiogram revealed bradycardia and no other abnormalities.

The patient was diagnosed with anorexia nervosa and hospitalized because of significant bradycardia due to severe and rapid weight loss. The goals of the admission included medical stabilization, nutritional rehabilitation, weight restoration, and initiation of psychological treatment for his eating disorder.

LEARNING POINTS

- The COVID-19 pandemic has had a significant impact on the number of new cases of child and adolescent eating disorders across Canada and globally (2,3). The epidemiology of new cases of children and adolescents with eating disorders in Canada is not known.
- According to a recent Canadian Paediatric Society (CPS) poll, 73% (108/148) of paediatricians across Canada reported increases in the number of children and adolescents presenting to their practice with an eating disorder, compared to pre-pandemic; 55% (78/141) and 77% (109/141) of respondents noted that these children and adolescents were presenting with more severe medical complications and severe psychiatric consequences requiring hospitalization, respectively (E. Vyver and D. K. Katzman, personal communication, March 16, 2021).
- Canadian paediatricians feel that the psychosocial impact of the COVID-19 public health mitigation strategies has contributed to the increase in the number and acuity of hospitalized children and adolescents with new-onset eating disorders. The recent CPS poll showed that paediatricians identified loss of activities (78%; 106/136), loss of routine (76%; 104/136), and isolation (76%; 104/136) as the most common precipitating factors contributing to the onset of a new eating disorder (E. Vyver and D. K. Katzman, personal communication, March 16, 2021).
- Evidence suggests that COVID-19-related factors have precipitated the rise in the number of hospitalizations of children and adolescents with eating disorders. These include the following: isolation; lack of routine; lack of social sup-

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- port; school closures; social media content with ‘fat-phobic’ messaging (e.g., diet and at-home-exercise advice to avoid the ‘quarantine 15’ [referring to weight gain of 15 lbs during the pandemic]); triggering situations (e.g., concerns around food shortages and the availability of ‘safe’ foods in grocery stores, hygiene practices, family stress, finances); and modifications in health care delivery, including limited access to health care providers and delays in seeking care for fear of contracting COVID-19 (4).
- Children and adolescents with eating disorders do not choose to have this illness. Understanding the cognitions and behaviours caused by an eating disorder can be challenging. However, separating the eating disorder from the young person (‘externalization’) can be used as a powerful communication and treatment strategy that avoids shaming and blaming the child for their illness. Health care providers and parents are encouraged to use externalization when supporting the young person as it will help to: (i) focus on the illness, not the child; (ii) distinguish between eating disorder behaviours and the young person; and (iii) stand strong against the eating disorder while remaining compassionate, understanding, and kind to the child or adolescent (5). Eating disorders are serious mental illnesses with significant, life-threatening medical and psychiatric morbidity and mortality (6). Early recognition and timely intervention are important for recovery. Children and adolescents with pre-existing and new eating disorders need to stay actively involved in treatment during the COVID-19 pandemic. Medical monitoring and ongoing psychological treatment will help mitigate the acute and long-term medical and psychological consequences of these disorders.
 - Further research is needed to understand the potential precipitating factors of new-onset eating disorders in order to implement prevention strategies and best adapt, modify, and deliver needed services to support children and adolescents with eating disorders and their families during this pandemic, and in the case of future public health emergencies.

- The Canadian Paediatric Surveillance Program will be launching a study focused on describing the clinical features associated with hospitalizations for a first presentation of a primary diagnosis of anorexia nervosa during the COVID-19 pandemic and describing the COVID-19-related risk factors potentially contributing to the diagnosis and the need for hospitalization. For more information on the study protocol and to report a case, please visit the following website: <https://www.cpsp.cps.ca/surveillance/current-studies>
- To learn more about paediatric eating disorders, visit the CPS website, which contains several important and practical resources on child and adolescent eating disorders (1,7).

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References

1. Norris ML, Hiebert JD, Katzman DK. Determining treatment goal weights for children and adolescents with anorexia nervosa. *Paediatr Child Health* 2018;23(8):551–2.
2. Haripersad YV, Kannegiesser-Bailey M, Morton K, et al. Outbreak of anorexia nervosa admissions during the COVID-19 pandemic. *Arch Dis Child* 2021;106(3):e15.
3. Jones PD, Gentin A, Clarke J, Arakkakunnel J. Fewer respiratory admissions in COVID-19 era. *J Paediatr Child Health* 2020;56(12):1997–9.
4. Termorshuizen JD, Watson HJ, Thornton LM, et al. Early impact of COVID-19 on individuals with self-reported eating disorders: A survey of ~1,000 individuals in the United States and the Netherlands. *Int J Eat Dis* 2020;53(11):1780–90.
5. Lock J, Le Grange D. *Help Your Teenager Beat an Eating Disorder*, 2nd edn. New York: The Guilford Press, 2015.
6. Arcelus J, Mitchell AJ, Wales J, Nielsen S. Mortality rates in patients with anorexia nervosa and other eating disorders. A meta-analysis of 36 studies. *Arch Gen Psychiat* 2011;68(7):724–31.
7. Findlay S, Pinzon J, Taddeo D, Katzman DK; Canadian Paediatric Society Adolescent Health Committee. Family-based treatment of children and adolescents with anorexia nervosa: Guidelines for the community physician. *Paediatr Child Health* 2010;15(1):31–5.