

# Child and adolescent psychiatry outpatient clinic admissions of anorexia nervosa patients before and during the COVID-19 Pandemic (January 2015–January 2022)—A retrospective cohort from a tertiary referral hospital in Turkey

Dear Editor,

In the COVID-19 pandemic, serious changes occurred in the nutritional and dietary habits of children and adolescents. Eating habits deteriorated, breakfast was skipped, unhealthy snacks increased including consumption of carbonated and sugary drinks, and the rate of dieting increased (Ersü & Harbelioğlu, 2022). Similarly, emotional eating and night eating were increased to cope with anxiety (Alamrawy et al., 2021).

As a result, during the pandemic period, there was a significant worsening of symptoms in anorexia nervosa patients (Graell et al., 2020), and a serious increase in the rate of newly diagnosed patients with anorexia nervosa (Haripersad et al., 2021). Possible underlying factors can be identified, such as decreased social interactions, reactive secondary mental symptoms due to social isolation and quarantine processes, increased time spent on social media, increased awareness of body image, comparisons, and self-criticism. Suggested factors more closely related to anorexia include objectification of the ideal of thin and beautiful individual, deterioration of daily routine, eating patterns related to body shape, and weight raising concerns, anorectic cognitions, a dysfunctional coping effort develops to regain control of the uncertainty during the epidemic period, food storage, and hoarding behaviors turn into diet and restricted eating behavior by increasing concerns about starvation and lack of food (Graell et al., 2020; Haripersad et al., 2021).

To add to this literature, we provide data on our small retrospective cohort study. We included the data from the hospital information system and patient files of child and adolescent mental health between 2015 and 2022 from an outpatient clinic in a tertiary referral hospital, in Istanbul, Turkey. We investigated the number of admissions of patients diagnosed with anorexia nervosa according to the DSM-5 before and during the pandemic. Between January 2015 and December 2019, there were an average of 20,000 patient admissions per year across the entire clinic. During this 5-year period, 29 patients were diagnosed with anorexia nervosa (5.8 patients per year). The total number of patients who admitted to the clinic in 2020, when the pandemic started, was 12,632, and 13,281 in 2021. During the 2-year period between January 2020 and December 2021, 32

patients were diagnosed with anorexia nervosa (16 patients per year). While a 35% decrease was found in the total number of patients who applied to our clinic throughout the year after the pandemic, the rate of diagnosis of anorexia nervosa increased approximately 2.5 times (relative risk = 4.74, 95% confidence = 3.16–7.11,  $p < 0.001$ ).

A few weeks after the first case of COVID-19 in our country in March 2020, the curfews were implemented. After the end of the curfew by June 2020, there was an intense rise in the admissions of patients with anorexia nervosa (Ünver et al., 2020). The admissions were mostly through the pediatric emergency department. Twenty-six (89.6%) of the anorexia nervosa patients admitted in the pre-pandemic period were female, and 30 (93.7%) of the patients admitted during the pandemic period were female. The mean age of the patients who applied before and during the pandemic were  $14.40 \pm 1.64$  and  $14.68 \pm 1.79$  years, respectively. The mean body mass index values were  $15.47 \pm 1.84$  and  $15.55 \pm 2.48$ , respectively. The mean illness duration time were  $5.74 \pm 2.58$  and  $5.22 \pm 2.18$  weeks, respectively. There was no significant difference between the patients admitted before and during the pandemic in terms of gender, age, body mass index, and illness duration ( $p = 0.564$ ;  $p = 0.644$ ;  $p = 0.397$ ;  $p = 0.390$ ). The psychiatric comorbidity was significantly higher during the pandemic period ( $p < 0.001$ ). The most common comorbid psychiatric disorders were depressive disorder ( $n = 11$ ), anxiety disorder ( $n = 10$ ), and attention deficit hyperactivity disorder ( $n = 6$ ).

The complaints during the emergency admissions were confusion, suicide attempt, nausea, flank pain, falling, palpitation, social withdrawal, refusal to take oral intake, and agitation. Most of the patients had increased physical activity (dancing, climbing stairs, walking along the corridor while waiting, and rocking). There were patients who had reservations for follow-up visits due to fear of infection. A large part of our patient group consisted of patients who were noncompliant with treatment and follow-up and had low motivation. Cognitive behavioral therapy was difficult to be implemented due to chronic hunger and cognitive slowness. Family therapy was applied in selected cases.

Our data were compatible with other studies conducted in the pandemic period. In a study examining the data of six hospitals in Canada, 24.5 patients per month were diagnosed with anorexia nervosa during the 5-year period before the pandemic, while this rate reached 40.6 patients in the first 7 months of the pandemic (Agostino et al., 2021). Similarly, in another study, health records of 5.2 million people under the age of 30 were examined between 2019 and 2021; the authors reported an increase in the rate of diagnosis of anorexia nervosa by 15.3% during the pandemic period (Taquet et al., 2022). Such a significant increase in anorexia nervosa patients during a unique period showed that children and adolescents were psychologically affected during the pandemic period. In our study, although there was an increase in hospital admissions of patients diagnosed with anorexia nervosa during the pandemic period, the pandemic had a hugely negative impact on people's ability to access community-based services and reduced opportunities for identification/referral via schools and community health services. That may well have led to a greater reliance on hospital admission as delayed support or diagnosis or referral results in greater severity of illness.

Learning from the pandemic we would recommend increasing the face-to-face social interactions of adolescents at risk for anorexia nervosa, ensure a quick return to the usual routines in school, peer relations, and home environment, multidisciplinary teams should quickly deal with symptoms in the early period, and use appropriate psychotherapeutic techniques for the symptoms of anorexia nervosa.

#### CONFLICT OF INTEREST STATEMENT


The authors declare no conflict of interest.

#### DATA AVAILABILITY STATEMENT

The data that support the findings of this study are available from the corresponding author upon reasonable request.

#### ETHICS STATEMENT

Ethics committee approval was obtained. The study fulfills the ethical provisions of the Declaration of Helsinki.

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