# Evidence Search Service Results of your search request

## Literature about adolescent eating disorders during the COVID pandemic

**ID of request:** 28408  
**Date of request:** 22nd March, 2021  
**Date of completion:** 13th April, 2021

If you would like to request any articles or any further help, please contact:  Clare Thornalley at [clare.thornalley1@nhs.net](mailto:clare.thornalley1@nhs.net)

Please acknowledge this work in any resulting paper or presentation as: Evidence search: literature about adolescent eating disorders during the COVID pandemic.. Clare Thornalley. (13th April, 2021). BRIGHTON, UK: Brighton and Sussex Library and Knowledge Service.

**Sources searched**  
Cochrane Library (0)  
EMBASE (3)  
MEDLINE (9)  
NHS Digital (1)  
PROSPERO (2)  
PsycInfo (3)  
TRIP Database (1)  
UpToDate (2)

**Date range used** (5 years, 10 years): 2000 - 2021   
**Limits used** (gender, article/study type, etc.): English   
**Search terms and notes** (full search strategy for database searches below):

Relevant natural language and controlled vocabulary terms selected from the MeSH index were combined. Final result sets were de-duplicated and reviewed for relevance by the searcher, irrelevant results being discarded.

For more information about the resources please go to: <https://www.bsuh.nhs.uk/library/>.

## Summary of Results

This is an emerging topic area and I have started the search by locating statistics which demonstrate the variation in admission rates before and during the pandemic (See NHS Digital in the Search Results section) The Cochrane Library was checked for existing systematic reviews, which did not yield anything (as was expected) but Prospero listed two systematic reviews that are currently underway (See Devoe and Fiocca)

In reference to service delivery under pandemic conditions, Brooks, et al, offer a review of 24 studies examined the psychological impact of quarantine in 10 countries during previous infectious disease outbreaks. Davis, et al, also discuss a model of care provision for adolescent eating disorders offered at one institution during the current covid-19 pandemic.

Medline and Embase have been searched for their breadth of coverage, with attention to risk factors and treatment approaches as requested. A search mirroring this of PsycInfo as a specialist mental health database has also been undertaken.

## Contents

[A. Institutional Publications](#Content4)

NHS Digital

[Hospital admissions data on eating disorders.](#Research899754)

[B. Original Research](#Content5)

1. [79. Impact of COVID-19 on Access to Eating Disorder Treatment](#Research899733)
2. [84. COVID-19's Impact on Patients With Eating Disorders: The Relationship Between Eating Disorder/Mental Health Symptoms and Eating Disorder Motivation to Recover](#Research899728)
3. [Adapting and adopting highly specialized pediatric eating disorder treatment to virtual care: a protocol for an implementation study in the COVID-19 context.](#Research899746)
4. [Exploring changes in body image, eating and exercise during the COVID-19 lockdown: A UK survey.](#Research899742)
5. [Indirect acute effects of the COVID-19 pandemic on physical and mental health in the UK: a population-based study.](#Research899739)
6. [The impact of COVID-19 lockdown on social network sites use, body image disturbances and self-esteem among adolescent and young women.](#Research899737)
7. [Treatment of eating disorders in adolescents during the COVID-19 pandemic: a case series.](#Research899738)
8. ["Now It's Just Old Habits and Misery"-Understanding the Impact of the Covid-19 Pandemic on People With Current or Life-Time Eating Disorders: A Qualitative Study](#Research899729)
9. [Bulimia nervosa in times of the COVID-19 pandemic-Results from an online survey of former inpatients.](#Research899743)
10. [Challenges and opportunities for enhanced cognitive behaviour therapy (CBT-E) in light of COVID-19](#Research899753)
11. [Children and adolescents with eating disorders during COVID-19 confinement: Difficulties and future challenges.](#Research899744)
12. [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.](#Research899741)
13. [Eating disorders in times of the COVID-19 pandemic-Results from an online survey of patients with anorexia nervosa.](#Research899749)
14. [Family‐based treatment via videoconference: Clinical recommendations for treatment providers during COVID-19 and beyond](#Research899752)
15. [Outcomes of a Rapid Adolescent Telehealth Scale-Up During the COVID-19 Pandemic.](#Research899740)
16. [Telehealth transition in a comprehensive care unit for eating disorders: Challenges and long-term benefits.](#Research899750)
17. [The COVID-19 Pandemic and Rapid Implementation of Adolescent and Young Adult Telemedicine: Challenges and Opportunities for Innovation.](#Research899748)
18. [The impact of COVID-19 epidemic on eating disorders: A longitudinal observation of pre versus post psychopathological features in a sample of patients with eating disorders and a group of healthy controls.](#Research899745)
19. [The impact of the COVID-19 pandemic on help-seeking behaviors in individuals suffering from eating disorders and their caregivers.](#Research899747)
20. [Using telemedicine to reach adolescents during the COVID-19 pandemic](#Research899751)

### [C. Search History](#SearchHistory)

## A. Institutional Publications

#### NHS Digital

**Hospital admissions data on eating disorders.** (2020)

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=c1aa18322e82cd3bf541ff2cd8a19f53)

Finished Admission Episodes (FAEs) with a primary diagnosis of anorexia, bulimia or other eating disorder by age band (children 0-17 and adult 18+) and admission month for the period from March 2015 to June 2020 (provisional)

## B. Original Research

1. **79. Impact of COVID-19 on Access to Eating Disorder Treatment**  
   Spigel Rebecca T. Journal of Adolescent Health 2021;68(2 Supplement):S42.

Purpose: Shelter-in-place orders and social distancing guidelines, in response to the COVID-19 pandemic, have caused unanticipated disruptions in eating disorder (ED) treatment. Traditional face-to-face practices have been limited, leading to rapid implementation of telehealth. The objective of this study was to understand how COVID-19 has affected adolescents' access to ED treatment and perception of quality of care. Method(s): Data were obtained via the Registry of Eating Disorders and their Co-Morbidities Over Time in Youth (RECOVERY), a first of its kind, prospective registry of youth with all types of EDs. Using web-based surveys, data were obtained on ED behaviors and treatment, anxiety and depressive symptoms, and quality of life over time. In July 2020, we invited patients to complete an additional survey in order to understand the impact of COVID-19 on ED treatment, behaviors, and general well-being. Questions included types of treatment patients were involved in before and during the pandemic; formats in which patients were able to access providers; perceived disruption of care; and quality of care in the past 3 months. We examined the bivariate associations between treatment disruption, access to providers, and quality of care using chi2tests. Result(s): A total of 89 RECOVERY participants completed the COVID survey (56% response rate). The majority of respondents were diagnosed with anorexia nervosa (79%), 11% bulimia nervosa, 8% atypical anorexia nervosa and 8% ARFID. Between March 2020 - July 2020, only 10% of participants reported no access to providers, 66% reported using telehealth to access providers, 8% saw providers in-person, and 16% reported a mix of telehealth and in-person visits. Changes in care during the pandemic included a decrease in weight checks (p<0.001). Over half (55%) of participants reported regular weight checks prior to the pandemic while only 29% reported weight checks during the pandemic. Only 27% of participants reported treatment disruptions due to the COVID-19 pandemic. When rating quality of treatment during the last 3 months, 64% of participants rated their treatment as good as usual, while 7% said it was better than usual. Some rated the quality of treatment as somewhat worse than usual (26%) or much worse than usual (2%). Perceived treatment disruption was not associated with level of access to providers (p=0.64) or ability to access providers via telehealth (p=0.74). Level of access was also not associated with quality of treatment (p=0.40). The ability to continue regular weight checks during the pandemic was not associated with perception of treatment disruption (p=0.43) or patient-reported quality of care (p=0.95). Conclusion(s): These findings suggest patients have been able to access their providers via telehealth and the vast majority did not perceive a COVID-19-related treatment disruption. Most patients reported that their treatment quality was as good as usual, in keeping with studies demonstrating the acceptability of telemedicine. Future research should examine the efficacy of telehealth for treatment of ED, as well as differences in access and acceptability by demographic groups, particularly with respect to race/ethnicity and socioeconomic status. Sources of Support: Appleby Family Foundation and HRSA/MCHB through the BCH LEAH training grant #T71MC00009Copyright © 2020

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1. **84. COVID-19's Impact on Patients With Eating Disorders: The Relationship Between Eating Disorder/Mental Health Symptoms and Eating Disorder Motivation to Recover**  
   Vitagliano Julia A. Journal of Adolescent Health 2021;68(2 Supplement):S45.

Purpose: The COVID-19 pandemic has had a profound impact on adolescent health and well-being, particularly for adolescents already experiencing mental health difficulties. With increased feelings of isolation and stress due to COVID-19, adolescent patients with eating disorders (ED) are faced with an even greater challenge with respect to recovery. This study examines the relationship between ED/mental health (MH) symptoms and patient-reported motivation to recover from an ED in the time of COVID-19. Method(s): Patients were recruited through the Registry of Eating disorders and their Co-morbidities OVER time in Youth (RECOVERY) study at Boston Children's Hospital. RECOVERY is an innovative, longitudinal web-based registry of patients ages 10-27 seeking ED-related care; our study aims to understand patients' experience with an ED. RECOVERY patients were sent an additional survey in July 2020, which posed questions about how the COVID-19 pandemic had affected their treatment, daily life, and well-being. We examined the association between self-reported motivation to recover (5-point Likert scale) and patients' report of how the COVID-19 pandemic had affected their ED/MH symptoms (intrusive ED thoughts, anxiety, depression, and isolation) using chi2 tests and Spearman correlation analysis. Result(s): Of the 89 patients who completed the COVID-19 survey (56% response rate), the majority had a diagnosis of anorexia nervosa (AN) (79%). The remaining respondents had bulimia nervosa (11%), atypical AN (8%), and ARFID (8%). Almost half (48%) of participants reported the pandemic resulted in somewhat increased intrusive ED thoughts and 27% reported significantly increased intrusive thoughts. The majority of participants reported increased feelings of anxiety (77%), increased feelings of depression (73%), and increased feelings of isolation (79%). Nearly half of participants (45%) reported the pandemic had no effect on motivation to recover while 17% reported somewhat increased motivation, and 9% reported significant increased motivation. Approximately a quarter of participants (22%) reported their motivation to recover decreased somewhat and 7% reported a significant decrease in their motivation to recover. Bivariate analyses indicated an association between ED/MH symptoms and patients' motivation to recover. Increased intrusive ED thoughts and feelings of anxiety and depression were associated with decreased motivation to recover (p=0.002, p=0.01 and p=0.02, respectively). Reported motivation to recover decreased in 58% of those who reported intrusive ED thoughts, 42% of those with increased anxiety, and 46% of those with increased depression. Increased feelings of isolation were not associated with motivation to recover. Overall, increased ED/MH symptoms (sum of responses for intrusive ED thoughts, anxiety, depression, and isolation) were associated with decreased motivation to recover (spearman correlation coefficient=0.29, p=0.006). Conclusion(s): The COVID-19 pandemic has adversely affected the mental health status of ED patients. These analyses show the negative impact the COVID-19 pandemic has had on patients' ED/MH symptoms and in turn, their motivation to recover from their ED. Patients experiencing increased ED/MH symptoms (such as intrusive ED thoughts, anxiety, depression, and isolation) caused by the COVID-19 pandemic reported decreased motivation to recover. Patients with EDs are at increased risk of symptom worsening due to the effects of the pandemic. Sources of Support: HRSA/MCHB through the BCH LEAH training grant #T71MC00009; Appleby Family FoundationCopyright © 2020

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1. **Adapting and adopting highly specialized pediatric eating disorder treatment to virtual care: a protocol for an implementation study in the COVID-19 context.**  
   Couturier Jennifer Implementation science communications 2021;2(1):38.

BACKGROUND: The COVID-19 pandemic has negatively impacted individuals with eating disorders; resulting in increased symptoms, as well as feelings of isolation and anxiety. To conform with social distancing requirements, outpatient eating disorder treatment in Canada is being delivered virtually, but a lack of direction surrounding this change creates challenges for practitioners, patients, and families. As a result, there is an urgent need to not only adapt evidence-based care, including family-based treatment (FBT), to virtual formats, but to study its implementation in eating disorder programs. We propose to study the initial adaptation and adoption of virtual family-based treatment (vFBT) with the ultimate goal of improving access to services for youth with eating disorders., METHODS: We will use a multi-site case study with a mixed method pre/post design to examine the impact of our implementation approach across four pediatric eating disorder programs. We will develop implementation teams at each site (consisting of therapists, medical practitioners, and program administrators), provide a remote training workshop on vFBT, and offer ongoing consultation during the initial implementation phase. Therapists will submit videorecordings of their first four vFBT sessions. We propose to study our implementation approach by examining (1) whether the key components of standard FBT are maintained in virtual delivery measured by therapist self-report, (2) fidelity to our vFBT model measured by expert fidelity rating of submitted videorecordings of the first four sessions of vFBT, (3) team and patient/family experiences with vFBT assessed with qualitative interviews, and (4) patient outcomes measured by weight and binge/purge frequency reported by therapists., DISCUSSION: To our knowledge, this is the first study to evaluate an implementation strategy for virtually delivered FBT for eating disorders. Challenges to date include confirming site participation and obtaining ethics approval at all locations. This research is imperative to inform the delivery of vFBT in the COVID-19 context. It also has implications for delivery in a post-pandemic era where virtual services may be preferable to patients and families living in remote locations, where access to specialized services is extremely limited., TRIAL REGISTRATION: ClinicalTrials.gov NCT04678843 , registered on December 21, 2020.

[Available online at this link](https://www.knowledgeshare.nhs.uk/index.php?PageID=link_resolver&link=2e629e3c262cfd8da665583901eb0594)

1. **Exploring changes in body image, eating and exercise during the COVID-19 lockdown: A UK survey.**  
   Robertson MacKenzie Appetite 2021;159:105062.

Early reports suggest that lockdown measures associated with the COVID-19 pandemic (e.g., social distancing) are having adverse consequences for people's mental health, including increases in maladaptive eating habits and body dissatisfaction. Certain groups, such as those with pre-existing mental health difficulties, may be especially at risk. The current study explored perceived changes in eating, exercise, and body image during lockdown within the United Kingdom, using an online survey (n = 264). There were large individual differences in perceived changes in eating, exercise, and body image in this period. Women were more likely than men to report increasing struggles with regulating eating, preoccupation with food and worsening body image. Those with a current/past diagnosis of eating disorders reported significantly greater difficulties in regulating eating, increased preoccupation with food, exercise thoughts and behaviours and concern about appearance, even when compared to those with other mental health and developmental disorders. Ongoing research to explore individual differences in the trajectories of change in eating, exercise and body image as lockdown measures ease will be important for understanding the full psychological impact of this pandemic and improve service and public health planning going forward. Copyright © 2020 Elsevier Ltd. All rights reserved.

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1. **Indirect acute effects of the COVID-19 pandemic on physical and mental health in the UK: a population-based study.**  
   Mansfield Kathryn E. The Lancet. Digital health 2021;3(4):e217-e230.

BACKGROUND: There are concerns that the response to the COVID-19 pandemic in the UK might have worsened physical and mental health, and reduced use of health services. However, the scale of the problem is unquantified, impeding development of effective mitigations. We aimed to ascertain what has happened to general practice contacts for acute physical and mental health outcomes during the pandemic., METHODS: Using de-identified electronic health records from the Clinical Research Practice Datalink (CPRD) Aurum (covering 13% of the UK population), between 2017 and 2020, we calculated weekly primary care contacts for selected acute physical and mental health conditions: anxiety, depression, self-harm (fatal and non-fatal), severe mental illness, eating disorder, obsessive-compulsive disorder, acute alcohol-related events, asthma exacerbation, chronic obstructive pulmonary disease exacerbation, acute cardiovascular events (cerebrovascular accident, heart failure, myocardial infarction, transient ischaemic attacks, unstable angina, and venous thromboembolism), and diabetic emergency. Primary care contacts included remote and face-to-face consultations, diagnoses from hospital discharge letters, and secondary care referrals, and conditions were identified through primary care records for diagnoses, symptoms, and prescribing. Our overall study population included individuals aged 11 years or older who had at least 1 year of registration with practices contributing to CPRD Aurum in the specified period, but denominator populations varied depending on the condition being analysed. We used an interrupted time-series analysis to formally quantify changes in conditions after the introduction of population-wide restrictions (defined as March 29, 2020) compared with the period before their introduction (defined as Jan 1, 2017 to March 7, 2020), with data excluded for an adjustment-to-restrictions period (March 8-28)., FINDINGS: The overall population included 9 863 903 individuals on Jan 1, 2017, and increased to 10 226 939 by Jan 1, 2020. Primary care contacts for almost all conditions dropped considerably after the introduction of population-wide restrictions. The largest reductions were observed for contacts for diabetic emergencies (odds ratio 0.35 [95% CI 0.25-0.50]), depression (0.53 [0.52-0.53]), and self-harm (0.56 [0.54-0.58]). In the interrupted time-series analysis, with the exception of acute alcohol-related events (0.98 [0.89-1.10]), there was evidence of a reduction in contacts for all conditions (anxiety 0.67 [0.66-0.67], eating disorders 0.62 [0.59-0.66], obsessive-compulsive disorder [0.69 [0.64-0.74]], self-harm 0.56 [0.54-0.58], severe mental illness 0.80 [0.78-0.83], stroke 0.59 [0.56-0.62], transient ischaemic attack 0.63 [0.58-0.67], heart failure 0.62 [0.60-0.64], myocardial infarction 0.72 [0.68-0.77], unstable angina 0.72 [0.60-0.87], venous thromboembolism 0.94 [0.90-0.99], and asthma exacerbation 0.88 [0.86-0.90]). By July, 2020, except for unstable angina and acute alcohol-related events, contacts for all conditions had not recovered to pre-lockdown levels., INTERPRETATION: There were substantial reductions in primary care contacts for acute physical and mental conditions following the introduction of restrictions, with limited recovery by July, 2020. Further research is needed to ascertain whether these reductions reflect changes in disease frequency or missed opportunities for care. Maintaining health-care access should be a key priority in future public health planning, including further restrictions. The conditions we studied are sufficiently severe that any unmet need will have substantial ramifications for the people with the conditions as well as health-care provision., FUNDING: Wellcome Trust Senior Fellowship, Health Data Research UK. Copyright © 2021 The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY 4.0 license. Published by Elsevier Ltd.. All rights reserved.

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1. **The impact of COVID-19 lockdown on social network sites use, body image disturbances and self-esteem among adolescent and young women.**  
   Vall-Roque Helena Progress in neuro-psychopharmacology & biological psychiatry 2021;110:110293.

OBJECTIVE: This study aimed to determine the impact of COVID-19 lockdown on social network sites (SNS) use and to explore whether SNS use is associated with body image disturbances and low self-esteem., METHODS: A total of 2601 women living in Spain aged 14-35 years completed questionnaire measures of SNS use, self-esteem, body dissatisfaction and drive for thinness. In the survey, participants were asked about their use of SNS at the moment of answering the survey and before lockdown., RESULTS: A statistically significant increase was found in the frequency of use of all studied SNS (Instagram, YouTube, TikTok, Twitter and Facebook) during lockdown, as well as in the number of women following appearance-focused Instagram accounts. Moreover, significant relationships were found between the frequency of Instagram use and body dissatisfaction, drive for thinness and low self-esteem in the younger age group (14-24), and between the frequency of Instagram use and drive for thinness in the older age group (25-35). Following appearance-focused accounts on Instagram was related to body dissatisfaction and drive for thinness in the younger group, and only to drive for thinness in the older group (25-35). Following appearance-focused accounts on Instagram and a higher frequency of use of Instagram significantly predicted higher levels of drive for thinness., CONCLUSION: These results suggest that lockdown has had an impact on SNS use, and this might be linked to increased drive for thinness and eating disorder risk among adolescent and young women. Copyright © 2021 Elsevier Inc. All rights reserved.

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1. **Treatment of eating disorders in adolescents during the COVID-19 pandemic: a case series.**  
   Yaffa Serur Journal of eating disorders 2021;9(1):17.

BACKGROUND: Eating disorders (EDs) are among the most difficult psychiatric disorders to treat in normal conditions. They are likely even more difficult to manage in at-risk conditions such as the COVID-19 pandemic. Currently there is limited evidence about the particular needs and recommended treatment of adolescents with EDs during the COVID-19 outbreak, in particular regarding the use of telemedicine and the involvement of the family in long distance-treatment., AIMS: We sought to discuss the advantages and problems associated with the use of multi-professional long-distance telemedicine treatment in the management of adolescents with EDs and their families during the COVID-19 outbreak., METHODS: We gathered data about the treatment of adolescents with EDs in our pediatric ED-treatment center in Israel during the COVID-19 outbreak in the first 10 months of 2020, and compared it to the respective period in the past five years (2015-2019). Second, we described the management of four young females with anorexia nervosa (AN), treated in the ambulatory, daycare and inpatient facilities of our center during the COVID-19 pandemic., FINDINGS: Slightly less patients were treated in our center during the COVID-19 pandemic than in the respective period in the past five years. These patients received at that time considerably more treatment sessions from all treatment providers (psychiatrists, clinical nutritionists and psychotherapists). This was related, in part, to the extensive use of telemedicine during that period (more than as third of all sessions were carried out with telemedicine in comparison to no use of long-distance treatment in the previous years). The condition of the four adolescents with AN was compromised at the start of the COVID-19 quarantine. The use of multi-disciplinary long-distance telemedicine treatment resulted in an improvement in the condition in three of the four adolescents, living in well-organized families, with the motivation and ability to adjust to the new conditions, but not in one adolescent whose family experienced more problems. These families might require the use of face-to-face interventions even during pandemic conditions., CONCLUSION: The choice of the mode of treatment for adolescents with EDs during pandemic times (telemedicine vs. face-to-face) should consider the functioning of the family.

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1. **"Now It's Just Old Habits and Misery"-Understanding the Impact of the Covid-19 Pandemic on People With Current or Life-Time Eating Disorders: A Qualitative Study**  
   McCombie Catherine Frontiers in Psychiatry 2020;11:589225.

Background: Many aspects of the Covid-19 pandemic may make living with or recovery from an eating disorder (ED) particularly challenging. Understanding the processes which underlie the psychological and behavioral responses of people with EDs during this time are key to ensure tailored support in these unprecedented circumstances. Method(s): People with lifetime EDs (n = 32) were recruited through social media from May to June 2020 during a period of strict infection control measures in the United Kingdom (i.e., "lockdown," "social distancing"). They completed open-ended questions in an online anonymous questionnaire that invited them to reflect on how various aspects of their lives have been affected by the Covid-19 pandemic, including ED symptoms and coping strategies. Responses were analyzed using thematic analysis. Result(s): Most respondents reported that their ED worsened or resurfaced. Isolation, low mood, anxiety, lack of structure, disruption to routines, and media/social media messages around weight and exercise seemed to contribute to this. There was a clear sense that individuals struggled with which aspects of psychological distress to prioritize, i.e., mood vs. ED cognitions and behaviors, particularly as attempts to cope with one often exacerbated the other. Nonetheless, some participants reported "silver linings" of the pandemic. Conclusion(s): In this self-selected sample, deterioration or recurrence of ED symptoms were the norm. This has implications for the provision of treatment and care for people with EDs both in the immediate short-term and in potential future waves of the pandemic, with a significant surge of new and re-referrals expected.© Copyright © 2020 McCombie, Austin, Dalton, Lawrence and Schmidt.

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1. **Bulimia nervosa in times of the COVID-19 pandemic-Results from an online survey of former inpatients.**  
   Schlegl Sandra European eating disorders review : the journal of the Eating Disorders Association 2020;28(6):847-854.

OBJECTIVE: The COVID-19 pandemic might pose special challenges to patients with eating disorders (EDs) by interfering with daily routines. The aim of this study was to investigate the impact of the current pandemic on patients with bulimia nervosa (BN)., METHODS: Fifty-five former inpatients with BN completed an online survey on psychological consequences of the COVID-19 pandemic as well as on changes in health care utilisation and on the use and helpfulness of different coping strategies., RESULTS: Almost half of patients (49%) reported a deterioration of their ED symptomatology and 62% reported a reduced quality of life. The frequency of binge eating increased in 47% of patients and self-induced vomiting in 36%. Forty-six percent of patients stated a noticeable impairment of psychotherapy. Face-to-face psychotherapy decreased by 56% but videoconferencing therapy was only used by 22% of patients. Enjoyable activities, virtual social contacts with friends and mild physical activities were rated as the most helpful coping strategies among those most used., DISCUSSION: Approximately one half to two-thirds of former inpatients with BN experienced a negative impact of the crisis on their ED symptomatology and quality of life. In challenging times when face-to-face therapy options are restricted, e-health treatments such as videoconferencing therapy should be considered to ensure continuity of care. Copyright © 2020 The Authors. European Eating Disorders Review published by Eating Disorders Association and John Wiley & Sons Ltd.

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1. **Challenges and opportunities for enhanced cognitive behaviour therapy (CBT-E) in light of COVID-19**  
   Murphy Rebecca the Cognitive Behaviour Therapist 2020;13:18.

In the past few weeks, coronavirus disease 2019 (COVID-19) has dramatically expanded across the world. To limit the spread of COVID-19 and its negative consequences, many countries have applied strict social distancing rules. In this dramatic situation, people with eating disorders are at risk of their disorder becoming more severe or relapsing. The risk comes from multiple sources including fears of infection and the effects of social isolation, as well as the limited availability of adequate psychological and psychiatric treatments. A potential practical solution to address some of these problems is to deliver enhanced cognitive behaviour therapy (CBT-E), an evidence-based treatment for all eating disorders, remotely. In this guidance we address three main topics. First, we suggest that CBT-E is suitable for remote delivery and we consider the challenges and advantages of delivering it in this way. Second, we discuss new problems that patients with eating disorders may face in this period. We also highlight potential opportunities for adapting some aspects of CBT-E to address them. Finally, we provide guidelines about how to adapt the various stages, strategies and procedures of CBT-E for teletherapy use in the particular circumstances of COVID-19. Key learning aims: (1) To appreciate that CBT-E is suitable for remote delivery, and to consider the main challenges and potential advantages of this way of working. (2) To identify and discuss the additional eating disorder-related problems that may arise as a result of COVID-19, as well as potential opportunities for adapting some aspects of CBT-E to address them. (3) To learn how to adapt CBT-E for remote delivery to address the consequences of COVID-19. Specifically, to consider adaptations to the assessment and preparation phase, the four stages of treatment and its use with underweight patients and adolescents. (PsycInfo Database Record (c) 2020 APA, all rights reserved) (Source: journal abstract)

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1. **Children and adolescents with eating disorders during COVID-19 confinement: Difficulties and future challenges.**  
   Graell Montserrat European eating disorders review : the journal of the Eating Disorders Association 2020;28(6):864-870.

OBJECTIVE: To present the adaptations to treatment protocols made in a child and adolescent eating disorders (ED) unit during the eight-week confinement period mandated in response to the COVID-19 pandemic and examine clinical and treatment variables in the outpatient, day hospital, and inpatient care programs., METHOD: Description of the implementation of a combined teletherapy program for outpatient and day-hospital patients and the adaptations made to the inpatient protocol. Retrospective review of medical records and analysis of general and specific variables related to the pandemic and confinement., RESULTS: We held 1,329 (73.10%) telehealth consultations and 489 (26.9%) face-to-face outpatient visits with 365 patients undergoing treatment in the outpatient clinic or day hospital. Twenty-eight (7.67%) were initial evaluations. Twenty-two patients were newly admitted and 68 ED-related emergencies were attended. Almost half of the children and adolescents studied experienced reactivation of ED symptoms despite treatment, and severe patients (25%) presented self-harm and suicide risk., CONCLUSIONS: The implementation of a combined teletherapy program has enabled continuity of care during confinement for children and adolescents with ED. Delivery of treatment to adolescents in the day hospital program posed the biggest challenge due to their greater degrees of severity and higher hospitalization rates. An adapted inpatient program should be maintained throughout confinement, as the need for hospitalization of children and adolescents with ED does not decrease with lockdown. Copyright © 2020 John Wiley & Sons, Ltd and Eating Disorders Association.

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1. **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.**  
   Termorshuizen Jet D. The International journal of eating disorders 2020;53(11):1780-1790.

OBJECTIVE: We evaluated the early impact of COVID-19 on people with self-reported eating disorders., METHOD: Participants in the United States (US, N = 511) and the Netherlands (NL, N = 510), recruited through ongoing studies and social media, completed an online survey that included both quantitative measures and free-text responses assessing the impact of COVID-19 on situational circumstances, eating disorder symptoms, eating disorder treatment, and general well-being., RESULTS: Results revealed strong and wide-ranging effects on eating disorder concerns and illness behaviors that were consistent with eating disorder type. Participants with anorexia nervosa (US 62% of sample; NL 69%) reported increased restriction and fears about being able to find foods consistent with their meal plan. Individuals with bulimia nervosa and binge-eating disorder (US 30% of sample; NL 15%) reported increases in their binge-eating episodes and urges to binge. Respondents noted marked increases in anxiety since 2019 and reported greater concerns about the impact of COVID-19 on their mental health than physical health. Although many participants acknowledged and appreciated the transition to telehealth, limitations of this treatment modality for this population were raised. Individuals with past histories of eating disorders noted concerns about relapse related to COVID-19 circumstances. Encouragingly, respondents also noted positive effects including greater connection with family, more time for self-care, and motivation to recover., DISCUSSIONS: COVID-19 is associated with increased anxiety and poses specific disorder-related challenges for individuals with eating disorders that require attention by healthcare professionals and carers. Copyright © 2020 Wiley Periodicals LLC.

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1. **Eating disorders in times of the COVID-19 pandemic-Results from an online survey of patients with anorexia nervosa.**  
   Schlegl Sandra The International journal of eating disorders 2020;53(11):1791-1800.

OBJECTIVE: The COVID-19 pandemic and the resulting public restrictions pose a psychological burden for humans worldwide and may be particularly detrimental for individuals with mental disorders. Therefore, the current study explored effects of the COVID-19 pandemic on eating disorder (ED) symptoms and other psychological aspects in former inpatients with anorexia nervosa (AN)., METHOD: One-hundred and fifty-nine patients with AN-discharged from inpatient treatment in 2019-completed an online survey on contact history with COVID-19, changes in ED symptoms and other psychological aspects, health care utilization, and strategies patients employed to cope during the pandemic., RESULTS: Approximately 70% of patients reported that eating, shape and weight concerns, drive for physical activity, loneliness, sadness, and inner restlessness increased during the pandemic. Access to in-person psychotherapies and visits at the general practitioner (including weight checks) decreased by 37% and 46%, respectively. Videoconference therapy was used by 26% and telephone contacts by 35% of patients. Patients experienced daily routines, day planning and enjoyable activities as the most helpful among the most used coping strategies., DISCUSSION: The COVID-19 pandemic poses great challenges to patients with AN. ED-related thoughts and behaviors may be used as dysfunctional coping mechanisms to regain control over the current circumstances. E-mental health interventions appear to be promising for supporting AN patients during these hard times. Furthermore, interventions addressing symptoms of depression and anxiety, as well as intolerance of uncertainty might help them manage their ED symptoms. Copyright © 2020 The Authors. International Journal of Eating Disorders published by Wiley Periodicals LLC.

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1. **Family‐based treatment via videoconference: Clinical recommendations for treatment providers during COVID-19 and beyond**  
   Matheson Brittany E. International Journal of Eating Disorders 2020;53(7):1142-1154.

The necessity to employ distance‐based methods to deliver on‐going eating disorder care due to the novel coronavirus (COVID‐19) pandemic represents a dramatic and urgent shift in treatment delivery. Yet, TeleHealth treatments for eating disorders in youth have not been adequately researched or rigorously tested. Based on clinical experience within our clinic and research programs, we aim to highlight the common challenges clinicians may encounter in providing family‐based treatment (FBT) via TeleHealth for children and adolescents with anorexia nervosa and bulimia nervosa. We also discuss possible solutions and offer practical considerations for providers delivering FBT in this format. Additional research in TeleHealth treatment for eating disorders in youth may lead to improved access, efficiency, and effectiveness of FBT delivered via videoconferencing. (PsycInfo Database Record (c) 2020 APA, all rights reserved) (Source: journal abstract)

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1. **Outcomes of a Rapid Adolescent Telehealth Scale-Up During the COVID-19 Pandemic.**  
   Wood Sarah M. The Journal of adolescent health : official publication of the Society for Adolescent Medicine 2020;67(2):172-178.

PURPOSE: To describe the first 30 days of rapid adolescent telehealth scale-up in response to the coronavirus (COVID-19) pandemic at a single academic medical center and assess for disparities in visit completion rates by patient characteristics., METHODS: Visit outcome and patient demographic data were obtained via electronic health record (EHR) reports. Telehealth visit completion rates were compared by patient characteristics using the chi-square test and t-test. We used zip code data to generate latitude- and longitude-based maps of the range and density of service delivery. Patient cases highlighting challenges and opportunities for adolescent telehealth were summarized., RESULTS: Between March 16 and April 15, 2020, 392 telehealth visits were scheduled in 331 unique patients, with an 82% appointment completion rate. Video visits were conducted for eating disorders (39%), contraception/menstrual disorders (22%), gender-affirming care (17%), general adolescent medicine (15%), HIV treatment (6%), and substance abuse (1%). The majority of telehealth patients were female Caucasian minors with private insurance. There were no significant differences in telehealth visit completion rates by age, sex, gender, or insurance. Patients coded as non-white (African-American, Asian, or other) in the EHR had lower visit completion rates than white patients (p = .003). Telehealth patients were distributed across five states, with the highest concentration in the zip codes nearest to the clinic., CONCLUSIONS: Rapid scale-up of telehealth for Adolescent Medicine was achieved at this large academic medical center. Future implementation research is needed to assure telehealth reaches adolescents without widening health disparities. Copyright © 2020 Society for Adolescent Health and Medicine. Published by Elsevier Inc. All rights reserved.

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1. **Telehealth transition in a comprehensive care unit for eating disorders: Challenges and long-term benefits.**  
   Datta Nandini The International journal of eating disorders 2020;53(11):1774-1779.

The 2019 novel coronavirus disease (COVID-19) pandemic has forced many eating disorder medical stabilization units to consider adjustments that uphold both the quality of care delivered to patients while also observing social distancing public health directives for patients and staff. To date, inpatient facilities for eating disorders (both medical stabilization units and higher level of care facilities) have not needed to consider how to translate services to electronic platforms, given that most of these programs have in-person staff. We outline our transition to telehealth broadly, emphasizing some unexpected benefits of using telehealth services that we plan on integrating into our work-flow post COVID-19. These may be useful for other higher level of care eating disorder programs, including medical stabilization units, residential, partial hospitalization, and intensive outpatient programs. We also highlight aspects of transition that have been more challenging for this particular patient population, warranting the need for in-person services. Copyright © 2020 Wiley Periodicals LLC.

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1. **The COVID-19 Pandemic and Rapid Implementation of Adolescent and Young Adult Telemedicine: Challenges and Opportunities for Innovation.**  
   Barney Angela The Journal of adolescent health : official publication of the Society for Adolescent Medicine 2020;67(2):164-171.

PURPOSE: This study describes the rapid implementation of telemedicine within an adolescent and young adult (AYA) medicine clinic in response to the Coronavirus Disease 2019 (COVID-19) pandemic. While there are no practice guidelines specific to AYA telemedicine, observations made during this implementation can highlight challenges encountered and suggest solutions to some of these challenges., METHODS: Over the course of several weeks in March, 2020, the Adolescent and Young Adult Medicine Clinic at the University of California San Francisco rapidly replaced most in-person visits with telemedicine visits. This required logistical problem-solving, collaboration of all clinic staff members, and continuous reassessment of clinical practices. This article describes observations made during these processes., RESULTS: Telemedicine visits increased from zero to 97% of patient encounters in one month. The number of visits per month was comparable with that one year prior. While there were limitations to the clinic's ability to carry out health supervision visits, many general health, mental health, reproductive health, eating disorders, and addiction treatment services were implemented via telemedicine. Providers identified creative solutions for challenges that arose to managing general confidentiality issues as well as specific challenges related to mental health, reproductive health, eating disorders, and addiction care. Opportunities to implement and expand high-quality AYA telemedicine were also identified., CONCLUSIONS: The COVID-19 pandemic is leading to widespread telemedicine implementation. While telemedicine seems to be feasible and acceptable for our clinic patients, unanswered questions remain regarding confidentiality, quality of care, and health disparities. Clinical guidelines are also needed to guide best practices for telemedicine in this patient population. Copyright © 2020 Society for Adolescent Health and Medicine. Published by Elsevier Inc. All rights reserved.

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1. **The impact of COVID-19 epidemic on eating disorders: A longitudinal observation of pre versus post psychopathological features in a sample of patients with eating disorders and a group of healthy controls.**  
   Castellini Giovanni The International journal of eating disorders 2020;53(11):1855-1862.

OBJECTIVE: the aim of this longitudinal study was to evaluate the impact of COVID-19 epidemic on Eating Disorders (EDs) patients, considering the role of pre-existing vulnerabilities., METHOD: 74 patients with Anorexia Nervosa (AN) or Bulimia Nervosa (BN) and 97 healthy controls (HCs) were evaluated before lockdown (T1) and during lockdown (T2). Patients were also evaluated at the beginning of treatment (T0). Questionnaires were collected to assess psychopathology, childhood trauma, attachment style, and COVID-19-related post-traumatic symptoms., RESULTS: A different trend between patients and HCs was observed only for pathological eating behaviors. Patients experienced increased compensatory exercise during lockdown; BN patients also exacerbated binge eating. Lockdown interfered with treatment outcomes: the descending trend of ED-specific psychopathology was interrupted during the epidemic in BN patients. Previously remitted patients showed re-exacerbation of binge eating after lockdown. Household arguments and fear for the safety of loved ones predicted increased symptoms during the lockdown. BN patients reported more severe COVID-19-related post-traumatic symptomatology than AN and HCs, and these symptoms were predicted by childhood trauma and insecure attachment., DISCUSSION: COVID-19 epidemic significantly impacted on EDs, both in terms of post-traumatic symptomatology and interference with the recovery process. Individuals with early trauma or insecure attachment were particularly vulnerable. Copyright © 2020 Wiley Periodicals LLC.

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1. **The impact of the COVID-19 pandemic on help-seeking behaviors in individuals suffering from eating disorders and their caregivers.**  
   Richardson Candice General hospital psychiatry 2020;67:136-140.

OBJECTIVE: To describe the impact of the COVID-19 pandemic on help-seeking behaviors among individuals with eating disorders and caregivers., METHODS: We analyzed service utilization data from the National Eating Disorder Information Centre (NEDIC). We compared the number of contacts and symptom frequency between the pandemic period and previous years., RESULTS: NEDIC was contacted 609 times during March 1-April 30, 2020 (72.1% individuals affected by disordered eating, 20.4% caregivers). The number of total contacts significantly increased from 2018 to 2019 and 2018 to 2020 (X2(3) = 50.34, p < .001). Among affected individuals (80.4% women), the number of contacts during the pandemic period was significantly higher (n = 439; X2(2) = 92.74, p < .001) compared to 2018 (n = 197) and 2019 (n = 312). There were higher rates of eating disorder symptoms, anxiety, and depression in 2020 compared to previous years. Thematic analysis of instant chats from the pandemic year revealed four emerging themes: 1) lack of access to treatment, 2) worsening of symptoms, 3) feeling out of control, and 4) need for support., CONCLUSION: These findings point toward the impact of COVID-19 in individuals affected by disordered eating and hold implications for service delivery during times of crises. Copyright © 2020 Elsevier Inc. All rights reserved.

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1. **Using telemedicine to reach adolescents during the COVID-19 pandemic**  
   Evans Yolanda N. Journal of Adolescent Health 2020;67(4):469-471.

The article discusses the uses of telemedicine to reach adolescents during the COVID-19 pandemic. The term telemedicine is used when discussing health care delivered by providers located in a different physical location from the patient. Benefits of telemedicine are highlighted and confidentiality and standards of care are addressed. It is maintained that adolescent health is embracing the use of telemedicine during the COVID-19 pandemic, we must continue to work to ensure care is available and consider any patient populations who may not have access because of inequalities in our health care systems. Ideas for future telemedicine uses include increasing school-based telehealth services, partnering with communities to reach youth who are unstably housed or involved in the juvenile justice system, expanding access to specialty care (e.g., gender and eating disorder care) in rural or provider shortage locations, using telemedicine during and/or after climate disasters as well as future infectious disease outbreaks, and expanding access to confidential services (reproductive health, contraception, mental health, addiction, and medicine). We must also consider how to incorporate telemedicine into multidisciplinary team care (especially as providers are working remotely and team members are not in the same physical location). More research is needed on health care delivery to adolescents and young adults using technology-based solutions outside of the clinical setting. Guidelines must be developed on how to involve learners in care and teach the future adolescent health providers how to think safely, yet creatively about solutions for reaching youth. One thing is certain moving forward, now that patients and providers have experienced digital technology for health care, school, and social connection, telemedicine is here to stay. (PsycInfo Database Record (c) 2020 APA, all rights reserved)

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## C. Search History

## **Reviewer’s note:** For a more comprehensive search, use subject headings (i.e. MeSH terms or thesaurus terms) as well as free text search terms. Consider using additional search terms for the adolescent part of the search, such as teen/teens, young people, young person.

|  | **Source** | **Criteria** | **Results** |
| --- | --- | --- | --- |
| 1. | Medline | (adolescen\* or teenag\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 2166617 |
| 2. | Medline | ("eating disorder" or "eating disorders" or "anorexia nervosa" or anorex\* or "bulimia nervosa" or bulimi\* or "avoidant restrictive food intake disorder" or "binge eating" or "binge-eating").mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 62485 |
| 3. | Medline | ("covid 19" or "covid-19" or "SARS‐CoV‐2" or "coronavirus 2019" or pandemic or lockdown or quarantine).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 149883 |
| 4. | Medline | 1 and 2 and 3 | 45 |
| 5. | Medline | (risk\* or deterior\* or stress\* or resilien\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 3880744 |
| 6. | Medline | 4 and 5 | 17 |
| 7. | Medline | (treat\* or therap\* or care or recover\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 11057203 |
| 8. | Medline | 4 and 7 | 32 |
| 9. | Medline | "zika virus" OR "zika fever" OR ebolavirus OR "ebola virus disease" OR "ebola hemorrhagic fever" OR "ebola haemorrhagic fever" OR H1N1 OR "novel influenza H1N1" OR A/H1N1 OR H1N1/09 OR SARS-CoV | 119773 |
| 10. | Medline | 1 and 2 and 9 | 41 |
| 11. | Embase | (adolescen\* or teenag\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 1958203 |
| 12. | Embase | ("eating disorder" or "eating disorders" or "anorexia nervosa" or anorex\* or "bulimia nervosa" or bulimi\* or "avoidant restrictive food intake disorder" or "binge eating" or "binge-eating").mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 41487 |
| 13. | Embase | ("covid 19" or "covid-19" or "SARS‐CoV‐2" or "coronavirus 2019" or pandemic or lockdown or quarantine).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 135883 |
| 14. | Embase | 11 and 12 and 13 | 38 |
| 15. | Embase | (risk\* or deterior\* or stress\* or resilien\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 410744 |
| 16. | Embase | 14 and 15 | 11 |
| 17. | Embase | (treat\* or therap\* or care or recover\*).mp. [mp=title, abstract, original title, name of substance word, subject heading word, floating sub-heading word, keyword heading word, organism supplementary concept word, protocol supplementary concept word, rare disease supplementary concept word, unique identifier, synonyms] | 1287203 |
| 18. | Embase | 14 and 17 | 23 |
| 19. | Embase | "zika virus" OR "zika fever" OR ebolavirus OR "ebola virus disease" OR "ebola hemorrhagic fever" OR "ebola haemorrhagic fever" OR H1N1 OR "novel influenza H1N1" OR A/H1N1 OR H1N1/09 OR SARS-CoV | 20873 |
| 20. | Embase | 11 and 12 and 19 | 12 |

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