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A Promising Program for Emerging Adults with EDs

Several features, including flexibility and rapid access to treatment, were attractive to this age group.

The First Episode Rapid Intervention for Eating Disorders program (FREED) was originally developed as a so-called "care package" and service model for emerging adults (aged 16 to 25) who developed EDs within 3 years.

To determine the impact of the FREED approach, Dr. Rachel Potterton and her colleagues at King's College, London, recently collected questionnaire and interview data from 106 emerging adults who had received treatment through the FREED program (*J Eat Disord*. 2021.9:3). The participants had been ill for an average of 3 years. All participants were interviewed 3, 6, and 12 months after entering the study and all were also participating in a larger FREED study (the FREED-Up study). More than a third agreed to share something from their experience with the FREED early intervention program.

What patients liked most about the program

Most study participants reported experiencing psychological and behavioral changes because of the program. The vast majority reported that treatment had been helpful, and that they had fewer symptoms and/or increased acceptance and understanding of their disorder after being in the FREED program. They identified several aspects of treatment that were particularly helpful.

Working with skilled clinicians. First, participants praised their skilled and knowledgeable clinicians. About 10% reported that they had come to treatment without any expectation of recovery, but the FREED program had given them a sense of hope that they could recover. They did not feel abandoned; instead, they reported feeling empowered and well equipped to go forward into recovery without a therapist. They now believed that full recovery was possible.

Flexibility. The participants also praised the flexibility of the program, which fit in well with their work, school, and home life. Thus, when unexpected events occurred, the program was flexible enough that they could take care of life events while remaining in treatment. The authors noted that emerging adulthood is a key time for psychosocial development, especially identity development in multiple domains, such as relationships, work, and ideologies. They stressed that the FREED program was designed so that life did not get in the way of continuing treatment (*Eur Eat Disord Rev*. 2018. 26:129).

Rapid access. Rapid access to treatment was another plus for the emerging adults. The participants believed that rapid access to treatment had prevented ED thoughts and behaviors from becoming more engrained, and also kept their physical health from deteriorating.

A focus on more than the ED. Life beyond the eating disorder was also a favorite topic. That is, the focus was not only on the ED but also on the full range of the participant's life, including family members, friends, work, and special skills and life goals. The participants also liked the fact that the program helped them develop and maintain support networks. Their family was an important support network during treatment, and they judged family support as important to their progress.

Positive changes. Whereas most study participants reported seeing noticeable psychological and behavioral changes in themselves, this varied somewhat. Some participants described making positive progress in improvement of symptoms, while others described this in terms of being "freerer" and more able to be themselves or being able to work toward goals other than those involving the eating disorder. While many said they were not yet recovered, treatment had made them feel empowered to work toward recovery.

On the negative side, a handful of participants believed that treatment had not brought changes; others felt the treatment was too brief. The authors pointed out that this finding echoed evidence from the prior and larger FREED-Up study, which showed that FREED patients had significant changes in ED symptoms and individualized outcomes during the course of treatment.

An individual focus. Participants also liked the fact that treatment focused on them and, in effect, they became their own therapist. This echoes the fact that emerging adulthood is a key time for self-development and tends to be characterized by attitudes of self-reliance (*J Adult Dev*. 2015. 22:1).

The authors believe their study results provide further support for early intervention and developmentally informed care for those with EDs. According to them, future treatment approaches should include encouraging patients to seek help earlier. The design of the program includes very rapid access to initial evaluation, which is a challenge to provide but may be a powerful part of the intervention's impact.

Internet-based Cognitive Behavior Therapy during the COVID-19 Pandemic

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Face-to-face cognitive behavior therapy (CBT) is a primary treatment for eating disorders, but its availability is limited. That is, patients may encounter long waiting times due to lack of trained therapists, or may be worried about the stigma of an ED; cost is another important barrier.

There is evidence that early intervention leads to better outcomes (Beat, 2015), and Internet-based CBT (ICBT) may provide a cost-effective, evidence-based alternative to mitigate the adverse effects of delayed intervention. In particular, the anonymity offered by ICBT may appeal to those who delay seeking treatment because of concerns about the stigma associated with EDs (Ali et al., 2017). The vital need for ICBT in treating EDs at times when direct contact is not an option has only been highlighted by the COVID-19 pandemic, which has led to a shift to telehealth in place of face-to-face consultation.

> **"*ICBT is a promising approach for the prevention, treatment, and relapse prevention of EDs, and is particularly important when face-to-face CBT is not possible.*"**

Who Could Benefit From ICBT?

The ED research literature is limited in identifying consistent patient characteristics that predict good outcomes from ICBT ED programs, and further research is badly needed. Today, ICBT programs are targeted at females, and the effects of ICBT on males have not been a focus of research. Internet-based CBT requires patients to have adequate literacy levels and skills in information technology (IT), and no visual or auditory impairment.

Aardoom, Dingemans, Spinhoven and Furth (2013) suggest that ICBT for EDs is more beneficial for persons with less comorbid psychopathology, those who binge-eat vs. those who restrict eating, and those with BED vs. those with BN. Wagner et al. (2015) propose that ICBT is more suitable for persons with BN and related eating disorders not otherwise specified (EDNOS), patients with less severe symptoms (lower baseline binge rate, and lower body dissatisfaction); and those with higher drive for thinness, higher motivation to change, and higher harm avoidance. Some symptoms include excessive worrying, pessimism, shyness, being fearful, doubtful and easily fatigued, as detected with the *Temperament and Character Inventory*. More recently, Levallius, Clinton, Hogdahl, and Norring (2020) found that two personality traits in particular, high Openness to Experience (open-mindedness) and high Conscientiousness, from the *Five Factor Model*, indicated better treatment response to ICBT in full or sub threshold BN patients. These authors thus recommend that baseline personality assessment could facilitate patient selection.

As the level of need for treatment may change over time, monitoring, especially for any deterioration, is essential. Pregnant women need to be monitored closely, and ICBT is contraindicated in persons needing hospitalization, those with suicidal ideations or other risky behaviors, and those with severe mental illness, such as acute AN or major depression, or a psychotic disorder.

What Is The Role of the Therapist?

The role of the therapist could change in the near future, due to digital intervention - from ‘therapist’ to ‘guide’ or ‘facilitator’ (Yim and Schmidt, 2019). Currently, the evidence base supports the use of trained therapists to deliver ICBT programs. Guided Internet interventions have been found to be superior to unguided interventions (Baumeister et al., 2014), and specialist guidance has been more effective than non-specialist guidance for Internet interventions (Beintner et al., 2014). However, Sanchez-Ortiz et al. (2011) found that most emails from ICBT therapists were supportive, thus advocating the use of non-specialist guidance in ICBT programs. With enough training, ICBT can be effectively provided by less-experienced therapists, such as a nurse or primary care physician. This would increase resources, and decrease waiting times and costs.

In face-to-face therapy, a therapeutic alliance is strongly linked to treatment effectiveness (Hillier, 2018). Berger (2017) reports that, from a client’s perspective, a therapeutic alliance can develop during guided ICBT. However, Bengtsson et al. (2015) suggest that such an alliance may take longer to form than ordinarily occurs during face-to-face therapy. Other researchers have found that the therapeutic alliance has a positive and significant impact on treatment outcome in Internet interventions (Berger et al., 2019). Further, a good therapeutic alliance could reduce dropout from ICBT; this characteristic of treatment requires further study (Melville et al., 2010). According to Kaiser and colleagues (2021), although therapeutic alliance is important in ICBT, it may play a less critical role than in face-to-face therapy. Promoting such an alliance could improve treatment effectiveness. Interestingly, a study by Sucala et al. (2012) supports equivalence between face-to-face and digital interventions with regard to therapeutic alliance; however, the conclusions from that study are not firm.

Intervention via a Three-Way Alliance

Internet interventions may be effective via a three-way alliance: the therapeutic alliance between patient and therapist (TA) and the digital therapeutic alliance (DTA) between the patient and his or her computer. Hillier (2018) proposes that digital therapeutic alliances can form, especially with highly personalized digital interventions. There is evidence that the therapeutic alliance between patients and their therapist is not negatively affected by an additional alliance with a computer (Kiluk et al., 2014). As Cook and Doyle (2002) have written, ED patients experience a stronger therapeutic alliance with multimedia than when only one method of communication is used.

The research literature is sparse, and inconsistent when reporting the results of both patient-therapist (TA) and patient-computer (DTA) alliances in ICBT. Further research will be needed to determine the optimal level of therapist input and clinical expertise, and will better define the role of TA and DTA in ICBT.

Case History 1. Jane

Jane is a 20-year-old college student with a 10-month history of BN. She eats very lightly during the day, then binge-eats and purges (using self-induced vomiting) in the evenings and frequently throughout the day during the weekends.

Both Jane's mother and maternal grandmother have histories of being overweight. Jane was pudgy as a child, and feared that she had inherited the family tendency to being overweight. She disliked her appearance and felt that she needed to eat cautiously, and was very sensitive about any teasing regarding her weight from other schoolchildren, who called her 'fat bum' ("fat butt").

In college, for a while Jane felt accepted by her friends and had a steady boyfriend, and thus thought less about her weight and appearance. However, when her boyfriend graduated a year ahead of her and started working, Jane learned that he was being unfaithful, and the relationship broke down. Jane was very upset and depressed. She began focusing on her weight and appearance again, and thought that the relationship had ended because she was overweight. She started to diet excessively and exercised daily.

Four months later Jane had become gaunt, she was not menstruating regularly, and was subsisting on salads and water. Jane found it difficult to concentrate on her studies because of her preoccupation with eating and her weight, and did not do very well in her exams that year. One evening, Jane felt extremely miserable and lost control over her eating, leading to a big binge. Following this incident, she started binge eating regularly, and once more began to self-induce vomiting to compensate. Jane felt totally out of control, and started putting on a lot of weight. At this point, she contacted her family physician, who referred her to a specialist eating disorder service.

Jane was diagnosed with BN, and because CBT is the treatment of choice, she was offered group CBT or the ICBT self-help treatment program, *Salute BN* (Wagner et al., 2015) with email support from a therapist. Jane opted for the latter because it was cheaper, briefer, more convenient, and she could start treatment immediately.

After being given the secure login details, Jane worked on an online module each week, and a therapist checked her progress weekly and answered her questions via email. The first module covered psychoeducation about BN, and Jane realized that her restrictive eating and compensatory behaviors such as purging could maintain binge-eating. She also realized that her binge eating was triggered by extreme dieting and stress.

Supported by her therapist, Jane worked through all 7 modules. These included : (1) self-monitoring her eating, in order to be able to make changes; (2) establishing a balanced meal plan so that binge-eating became less likely; (3) taking measures to prevent binge-eating, such as identifying triggers to binge-eating; and (4) using problem-solving to formulate positive coping strategies. Finally, she learned not to diet by adding healthy foods to her diet and no longer thinking of certain foods as 'binge' foods, and hence forbidden. Jane learned to deal with unhelpful distorted thoughts by reframing them with more helpful alternative thoughts. By doing so, her food cravings and binge eating diminished, and her weight, rather than escalating as she expected, stabilized with time.

Following completion of the ICBT program, Jane was binge eating only once or twice a week. She was more confident and in control of her life and felt empowered by the skills she had acquired, so that she could envision a life without BN. Jane maintained weekly email contact with her therapist for a follow-up period of another month, at which point she was asymptomatic.

Case History 2. Katerina

Katerina is 19 years old, and has a 7-month history of AN. She controls her eating, and weighs herself several times a day. She has had problems with food all her life and has purged (self-induced vomiting) most of her life. She tells her mother that she will eat her meals upstairs, but does not eat them and instead hides the food around her bedroom. Although Katerina has reached menarche, she looks like she is 15 or 16 years old. Despite being extremely small and petite, she considers herself to be very overweight.

Katerina was adopted as a child and has had no contact with her birth parents. Her childhood was plagued by her ‘fussy eating,’ possibly triggered by being marginally overweight for a brief period prior to puberty. Later, when she was in college, low self-esteem led her to have many sexual partners to feel better about herself. Now she is very ashamed about her promiscuity. In her second year in college, Katerina’s adoptive parents divorced, and she ended up staying with her mother. Her father moved abroad, and she rarely sees him. During this stressful period of her life, Katerina was suspended from her classes because she was unable to keep up with her coursework. This was mainly due to her perfectionism, which was making her spend far too much time completing her classwork.

At this point, Katerina felt totally out of control of her life, and her eating problems worsened to a stage where she was just eating lots of materials like toilet paper and any other items that would fill up her stomach. Her body mass index (BMI, kg/mg2) plummeted to 14.5, and her menstrual periods ceased. At the same time, her mother had found lots of food stored around Katerina’s bedroom, and took her to the family’s primary care physician, who referred Katerina to a specialist eating disorder service.

Katerina was diagnosed with AN, and because she was willing to cooperate with treatment she was managed as a psychiatric inpatient until she reached a safe weight. At this point, she was discharged to a community psychiatric service to receive psychological treatment for her ED. In order to maintain the gains of hospital treatment, Katerina was offered the ICBT self-help relapse prevention program, *VIA* (Fichter et al., 2012). She accepted ICBT because it did not involve any travel, and she could work at her own pace.

After logging in securely, Katerina started the introductory chapter, which explained the program. After this, she worked through the next nine online chapters with a therapist who provided weekly email support that was gradually tapered off as she progressed through the program. Katerina covered psychoeducation about AN, and gained an understanding of the physical, behavioral, and psychological effects of her ED. She self-monitored her eating and dealt with restrictive eating patterns, which helped her increase her weight to a normal range. This enabled her to resume normal eating patterns, and she learned to avoid resorting to compensatory behaviors, such as purging, to control her weight. Furthermore, Katerina used strategies such as modifying her distorted thinking about her eating and weight to improve her negative body image and behavior. There was also a moderated discussion group and a monthly online (synchronous) one-hour group chat. Katerina found it very helpful to talk to others who were experiencing similar problems.

After a one-month follow-up period of email support from her therapist, Katerina had normalized her eating and weight. Even though she still had some concerns about eating and weight, she now felt in control of her life and could visualize a future without AN.

Conclusions

Internet-based CBT is a new approach, and research on its effectiveness is minimal. However, ICBT is promising for the prevention, treatment, and relapse prevention of EDs, and is particularly important in circumstances where face-to-face CBT is not possible, as has been the case during the COVID-19 pandemic.

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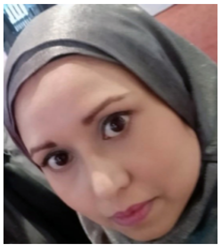

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From Across the Desk

Help for Older Patients

Our casual friend finally reached out for help. AJ, whom we hadnâ€™t seen in many years, called to ask us to take her to an emergency room. This confident, extremely independent and private person had longtime weight and eating patterns that were always troublesome. But now she had painful GI problems that had prevented her from eating for several days. For several years, even as we thought she was dangerously thin and told her so, she quickly changed the subject. After all, she was in her early 60s! and knew better than all of us. This time was different: now she weighed 95 lb at 5â€™6â€ tall, and hadnâ€™t been able to eat for several days. This meant a trip to the ER. Would she accept help, we wondered? And was this AN, which we had suspected for some time? She had no primary care physician, no car, no family close by, and no health insurance beyond Medicare. What were we all thinking? How could we intervene? Would she accept help, and what did â€œhelpâ€ mean to a stubborn senior citizen? Was eating disorders treatment available for her? In the end, after a physical workup, she was sent home.

How can we increase recognition of EDs across the lifespan? How could we help her? Who could help her when she refused all help? In a future issue, we will explore the dilemma and challenges of older adult patients who have never been diagnosed or treated for an ED. [Also see â€œWorking with Patients with Severe and Enduring Eating Disordersâ€ in the September-October 2021 issue.]

In this issue, also see an article on a program that uses the Internet to administer cognitive behavior therapy (“Internet-based Cognitive Behavioral Therapy during the COVID-19 Pandemic”) and a study looking at the use of BMI to classify patients with severe anorexia nervosa.

As we happily greet spring, we are reminded that there is no season for treating eating disordersâ€”cases arise in all seasons, with and without pandemics, and among all age groups.

—MKS

Body Mass Index and Severe AN

A longtime standard did not apply well to severe disease.

Using body mass index (BMI, mg/kg^2) to establish the severity of disease among patients with EDs is still being debated. How accurately can BMI be tied to a diagnosis of an eating disorder? In 2013, the *DSM-5* established guidelines for BMI: (1) mild, BMI >17; (2) moderate, between 16.0 and 16.9; (3) severe, between 15 and 15.9, and (4) extreme, <15). [See the NIH table for calculating BMI: **Body Mass Index Table 1 (nih.gov)**.] However, the validity of these severity markers is not yet firmly established.

Recently, a team of researchers sought to establish BMI levels for a group of seriously ill hospitalized AN patients. Their study included 193 people with AN during voluntary hospitalization at the Eating Disorders Center of the University of Turin Hospital, from December 2016 to July 2021 (*J Clin Med*. 2022. 11:542).

Testing current guidelines

> ***The data did not support using BMI classifications to define the severity of disease among inpatients with severe AN.***

Dr. Federica Toppino and colleagues designed the study to test possible BMI guidelines for severely ill AN inpatients. The authors had two major goals: to explore an extreme guideline (BMI <13.5), and to verify treatment outcome according to the severity of BMI. Study participants completed a series of questionnaires, including the *Eating Disorders Examination-Q,* the *State-Trait Anxiety Inventory,* and the *Body Shape Questionnaire*, among others. In addition, the researchers recorded socio-demographic and clinical characteristics when patients were first admitted to their hospital and again when they were discharged. All study participants also participated in a clinical interview when they left the hospital.

The participants were all Caucasians, and were voluntarily admitted to the hospital; none left the program against medical advice. A glimpse of the group showed that 5.4% were males, and 74.5% were diagnosed with restricting-type AN (AN-R), while 43, or 25.6%, had binge-purge type AN (AN-BP). The patients ranged in age from 18 to 56 years, and the mean BMI was 14.3.

Participants were placed into three groups based on their BMIs: non-extreme BMIs (NE-AN), or BMI ≥ 15; extreme BMIs (E-AN), between 13.6 and 14.9; and extreme BMIs (VE-AN), <13.5. Patients in the VE-AN and E-AN groups had similar eating psychopathology scores. The E-AN group had intermediate scores (although not statistically different from those of VE-AN), while, perhaps surprisingly, the NE-AN group had the most severe scores. The same trend was found for trait anxiety, depressive symptoms, and body image concerns. That is, the VE-AN and E-AN groups reported less severe scores when compared to the NE-AN group, with effect sizes ranging from medium to large.

The authors noted that treatment commonly intensified when a patient's BMI was low, and the three groups had different lengths of hospitalization and longer stays than those at lower BMI scores; this was seen on all measures. All patients improved with hospitalization independently of their BMIs. The authors pointed out that treatment is commonly intensified when a patient's BMI is low, and the three groups had different lengths of hospitalization and longer stays than those at lower BMIs.

BMIs did not relate to severity of disease

The authors concluded that their data did not support the validity of using BMI classifications to define the degree of severity of disease for inpatients with AN. In addition, and contrary to their original hypothesis, the authors found that patients with BMIs <13.5 did not form a separate clinical group. Even with severe emaciation, hospitalization improved baseline conditions, and patients had similar trajectories despite their BMIs. The researchers concluded that a better classification method for using BMI needs to be found for severely ill AN patients.

Thus, the challenge of finding useful severity classifications for those with AN persists.

Emotional Abuse and Neglect during Childhood

A study shows that abuse and neglect can lead to subsequent personality disorders.

While sexual abuse during childhood has received wide attention in media and clinical reports, fewer clinical trials have evaluated the results of emotional abuse and neglect during childhood.

A team of German researchers led by psychotherapist Dr. J. Spiegel at Vivantes Hospital Urban, Berlin, sought to better define the long-term connection of emotional abuse and neglect during childhood and problems later in life (*Eat Weight Disord*. 2022. 27:131). The study investigated correlations between childhood emotional neglect (CEN), childhood emotional abuse (CEA), and obsessive-compulsive and borderline personality styles in female inpatients 14 to 18 years of age who were currently receiving ED treatment.

Abuse and neglect and development of two EDs

CEN and CEA seem to be particularly important in the development of AN and BN (*Psychopathol*. 2012. 45:61). CEN is predominantly passive, and can be described as a lack of emotional affection or appreciation for a child. In CEA, a child is continuously hostilely rejected or devalued. Emotionally abused and neglected children are at increased risk for lower academic performance and lower IQs during childhood, and the effects of childhood maltreatment extend into later life.

The authors point out that CEN and CEA are also associated with an increased risk of developing a personality disorder (PD). For example, Johnson et al. found that CEA increased the risk for developing PDs (*Compr Psychiatry*. 2001. 42:16). Personality styles and PDs seem to play a central role in the development and maintenance of AN and BN, and have also been found to affect prognosis and treatment response. PDs are highly comorbid in AN and BN compared to those reported among healthy controls.

CEA is associated with borderline personality style in adolescent inpatients with binge-purging eating disorders (binge-purge type AN (AN-BP), and BN). Personality styles and PDs seem to play a central role in developing and maintaining AN and BN, and have been found to exacerbate prognosis and treatment response. PD comorbidity rates of 14.1% in patients with AN-R, 58.8% in those with AN-BP, and 48.0% in those with BN have been reported among adolescents. Significantly higher rates of comorbid borderline PDs have been found in BN and AN-BP patients (33.0 % and 29.4%, respectively) compared to AN-R patients (12%),

The study group

The authors recruited adolescents with EDs from a unit specializing in treating EDs at a child and adolescent psychiatry department. The study group included 128 female adolescents 14 to 18 years of age. Fifty-four participants had restricting-type AN (AN-R; 42.2%), and 33 had binge-purge type AN (AN-BP; 57.8%). Fifteen had BP-AN, and 18 had BN. Fifty healthy teens recruited from local high schools made up a control group.

CEN and CEA were assessed with the *Childhood Trauma Questionnaire* (CTQ), while the *Personality Style and Disorder Inventory* was administered to determine personality styles.

Differences emerged among the groups

Age differed significantly among the groups; individuals in the BP-ED group were the oldest. BMI and BMI percentiles were lowest among those with AN-R. Those in the BP-ED group had the most comorbidities, particularly mood disorders. This was reported regardless of the individual group.

Contrary to their original hypothesis, the authors did not find any association between CEN, CEA, and obsessive-compulsive personality style among the AN-R patients. Adolescent AN-R patients who had experienced CEA or CEN did not appear to develop compulsive behaviors as a strategy to regulate their emotions. However, these results contrasted with those reported in previous studies (for example, *Comp Psychiatry*. 2001. 42:16 and *Am J Psychiatry*. 1994. 151:1122). These inconsistencies may be due to methodological differences, such as the investigation of personality style vs. PD, or the focus on CEA and CEN vs. sexual and physical abuse, say the authors. In addition, the authors' study focused on adolescents, while previous studies had only included adults. Moreover, previous studies overlooking and minimizing psychological problems appear to be more common in studies of patients with AN and AN-R than for those with BN (*Am J Psychiatry*. 2007. 164:108). Therefore, it is also possible that patients with AN-R scored lower on the CTQ subscales because they had denied traumatic experiences in childhood.

The study results also showed that abuse in childhood is associated with borderline personality style in adolescent inpatients with binge-purge EDS, including AN, BP-type, and BN. In addition, the authors found that living in a traumatic environment, such as one including CEA, may play a role in the development and maintenance of borderline personality styles and BP-ED. However, they add that longitudinal studies will be needed to investigate this potential association.

There were some study limitations. For example, the sample size was small, especially for the BP-ED subgroup. Also, CEN and CEA were assessed retrospectively with a self-report questionnaire rather than with clinical interviews. In addition, there was no information about the intensity, duration, or timing of CEN and CEA.

These findings highlight the impact of CEN and CEA upon the way people present in treatment settings, according to Dr. Spiegel and colleagues.

Joint Hypermobility

A condition that can interfere with the sense of body and body image.

Joint hypermobility, or JHM, isn't reported often, but a recent study points out that overly mobile joints aren't uncommon among eating disorder patients, particularly those with AN. The study found JHM in more than 40% of participants, compared to the 10% to 20% of the general population (*Front Psychiatry*.2021. 803614).

JHM has also been related to neuropsychiatric conditions, especially anxiety disorders. In 2013, Goh et al. were the first to report hypermobile joints among people with eating disorders (*J Eat Disord*. 2013. (suppl 1) 045 doi:10/1186/2050-2974-1-S1-045). Other studies have linked HMJ to eating disorders, and have found this condition more commonly among ED patients than in relatives and controls.

A comparison of outpatients with HMJ and those without

> ***Impaired proprioception may interfere with an accurate body image.***

Dr. Carolina Baeza-Velasco and others at the Department of Emergency Psychiatry and Acute Care, CHU Montpelier, France, and the University of Barcelona, Spain, recently assessed 53 outpatients with eating disorders, to compare their course with that of patients with hypermobile joints and ED patients without HMJ. The study participants included men and women clinically diagnosed at the ED Unit at the authors' center in Barcelona. Patients with different types of EDs were enrolled in the study between June 2019 and March 2021.

The researchers used a series of physical tests and questionnaires, including the *Beighton Score* for JHM, the most widely used and probably the most reliable tool to assess this condition. With this test, individuals are asked to perform 5 maneuvers, and then score 1 point for each side of the body tested. The 5 motions include the following: passive dorsiflexion of the fifth metacarpal joint, passive thumb opposition to the forearm, passive hyperextension of the elbow and of the knee, and, finally, placing both hands flat on the floor in front of both feet while keeping the knees straight. The authors used the original scoring system of ≤4 of a possible 9 points to make the diagnosis.

Study participants also completed several questionnaires, including the *Detailed Flexibility Questionnaire,* or *DFlex*, a self-report questionnaire that assesses cognitive rigidity, and that coincidentally can reveal symptoms of the rigid perfectionism commonly found in ED patients. The authors also evaluated patient fatigue and pain during the final week of the study.

Significant differences were noted between the groups.

As expected, a high percentage of patients with EDs (more than 41% of the 36 participants) were positive for JHM, based on their *Beighton* scores. However, the researchers found no connection between BN and JHM. The authors did observe significant differences between participants with and without hypermobile joints (77% vs. 61%, respectively). The non-hypermobile group mostly presented with the restrictive type of AN, while the hypermobile group mostly presented with binge-purge AN. Those with HJM were significantly younger, had greater joint pain and easy bruising, had their EDs for a shorter time, and were less likely to have cognitive rigidity. Thus, the degree of cognitive rigidity, age, and duration of the ED could be used to predict the status of JHM in this group.

Hypermobile joints can signal vulnerability to an ED.

JHM tissue fragility and impairment of proprioception, common in joint hypermobility, may affect an individual's development and secure sense of body, and may also interfere with an accurate body image, core factors underlying an ED. Thus, hypermobile joints may signal a vulnerability to developing an ED. The authors speculate that an ED is probably secondary to connective tissue problems rather than directly attributable to the premorbid perfectionism and rigid cognitive style classically described in AN. In addition, easy bruising and joint pain were greater among those with HJM than among those in the non-hypermobile group. Previous researchers have found that weight loss and amenorrhea secondary to such weight loss may directly affect bone physiology (*Psychosomatics*. 1992. 33:105).

One limitation of this study was the small number of participants, but these results add valuable information on the relationship between eating disorders and JHM.

A New Version of the *Core Beliefs Questionnaire*

The newer test underlines the importance of patients'

feelings of self-loathing, feeling abandoned or isolated.

Our core beliefs are those things that we strongly believe within ourselves, and that affect the way we view every situation and experience in life. In contrast to rational core beliefs, harmful core beliefs can lead to negative thoughts, feelings and behaviors.

For patients with EDs, core beliefs play a key role in maintaining negative cognitive, affective, and behavioral symptom. As a team of Australian authors recently pointed out, Christopher Fairburn et al. hypothesized the transdiagnostic theory of eating disorders, where low self-esteem is one key factor that maintains overvaluation of eating, shape, weight, and perfectionism (*Behav Res Ther*. 2003. 41:509)

The 40-question *Core Beliefs Questionnaire* (*CBQ*) assesses five dimensions important in EDs: self-loathing, unassertive/inhibited behavior, demanding or needing help and support, feeling abandoned/deprived, and having high standards for oneself. Recently, three psychologists from the University of Sydney, Australia, evaluated and revised the CBQ, in an effort to improve the original version (*J Eat Disord.* 2022. 10:18).

Drs. Amaani H. Hatoum, Amy L. Burton, and Maree J. Abbott designed a psychometric evaluation of 763 undergraduate psychology students (71% female; mean age 19 years), who completed a battery of questions online. The authors identified a subgroup of 384 students (82% female) who appeared to have RD symptoms based on responses from the *Eating Disorder Examination Questionnaire* (EDE-Q); 139 students with few reported symptoms served as a control group.

How does the revised questionnaire differ?

The authors found that participants in the ED-symptomatic subgroup scored significantly higher on the original 40-item *ED-CBQ* total scale than did those in the non-ED subgroup. Participants in the ED symptomatic subgroup also scored significantly higher than the non-ED subgroup on the self-loathing, unassertive, abandoned, and demanding subscales. However, there was no significant difference between the ED-symptomatic and non-ED subgroups on the high standards for self-scales.

The authors report that their results have validated the importance of patients' feelings of self-loathing, feeling abandoned or isolated, believing oneself to be demanding, needing help or being unassertive or emotionally inhibited for individuals reporting clinical or subclinical ED symptoms. The results also provided evidence supporting these ED core beliefs and the presence of eating, weight, and shape concerns and restrictive eating and binge eating.

They noted that their research indicates that although such patients have high or unrelenting standards, they may also be more self-critical than others, and ultimately believe they are failing to meet these standards.

Dr. Hatoum and colleagues note that while the *ED-CBQ* is "a valid, reliable, and efficient way to measure core beliefs," the revised version, *ED-CBQ-R,* may also prove useful in future theoretical and empirical research."

Long-term Efficacy of Treatment for Children and Adolescents

A 7-year follow-up study provides some answers.

Researchers at the Maudsley Hospital in London have reported follow-up outcomes for a group of children and teens first seen, treated, and discharged between 2009 and 2014. Their findings provide a rare and valuable look at the long-term effect of evidence-based treatment among these young patients (*J Eat Disord*. 2022. 22:10:14).

Dr. Catherine S. Stewart and colleagues first identified 357 people who had been treated at their specialist ED service (Maudsley Centre for Child and Adolescent Eating Disorders). (The center treats children and adolescents with EDs for an area of Southeast London, servng a population of approximately 2.2 million persons.)

Comorbidities arose

The researchers used several questionnaires at admission and follow-up 7 years later, including the *Eating Disorder Examination Questionnaire* (EDE-Q), *The Work and Social Adjustment Scale* (WSAS), the *Morgan Russell Global Criteria,* the *Moods and Feelings Questionnaire*, and the *Screen for Child Anxiety Related Disorders* (SCARED). More than half (63.8%) of the young patients reported having minimal symptoms or none (26.8%).

Overall, the outcome from ED treatment was good. Only 10 (6.7%) of the final group of 149 (143 females and 6 males, 85% white and 23% black or Middle Eastern) patients reported having a current diagnosis of an eating disorder at the final follow-up.

Interestingly, at follow-up, comorbidities came into view. More than half (53%) did report having other mental health diagnoses. Interference from these diagnoses affected approximately one-third of the study participants, while slightly more than half of the participants reported minimal interference in daily life. During the follow-up period, approximately 70% had sought help for other mental health problems, mainly for anxiety or depression, and 35% had required substantial treatment. More than half reported functioning as well as their peers at work and school, and two-thirds were generally satisfied with their social well-being and quality of life.

The findings highlight the good news that young patients seen in community-based specialist eating disorders services do relatively well after discharge, as reported at long-term follow-up. Symptom and quality of life outcomes were very encouraging, but two-thirds of the young patients were seen for other comorbidities. These findings should provide encouragement, but also highlight the need to facilitate further treatment for comorbid problems.

Update

World Eating Disorders Action Day is observed each year on June 2. This event was developed to bring together people with EDs, their families, friends, caregivers, healthcare professionals, and organizations, to help raise global awareness of eating disorders, to dispel stereotypes, combat stigma over having an ED, and to encourage people with eating disorders to overcome shame and seek help.

This year, more than 200 organizations in more than 50 countries worldwide will hold World Eating Disorders Action Day events. People who have overcome eating disorders are also urged to use social media to share their treatment experiences.

Some ways to participate include:

- Joining the World Eating Disorders Action Day dialogue on social media using hashtags#WorldEatingDisordersDay and #Equity4Eating Disorders.
- Raising awareness of stigmatizing or inaccurate descriptions of EDs by providing feedback to the press, product brands, and other content creators
- Sharing a recovery story featured on The Emily Program's blog or podcast

https://www.emilyprogram.com. Or, if he or she is comfortable with sharing it, reaching out to tell their own story.

- The World Eating Disorders Action Day website is: **http://www.worldeatingdisordersday.org/**.

QUESTIONS AND ANSWERS

Acid Reflux or Self-induced Vomiting or…?

Q. I have recently seen two people with bulimia nervosa, one in her teens and one in his mid-20s, who report the same problem involving vomiting after meals. They describe the vomiting as spontaneously occurring from 10 to 15 minutes after they eat. As they have described it, the food comes back up into the mouth and stops there. Often the patient reports chewing the food again, swallowing, and then "throwing up" the food. Is this due to gastric reflux, or even anxiety or is it an eating disorder symptom? (*H.D., Fort Worth, TX*)

A. The symptoms you have described suggest rumination disorder, which is now included in the *DSM-5*. It is uncommon, and is usually seen in younger children, and less often in teens and adults. Diagnostic uncertainty about GI reflux or self-induced vomiting, or avoidant restrictive food intake disorder (ARFID) can lead to unneeded tests and delays. And, in this instance, although the symptoms seem to point to reflux, one key pointing to rumination is the delay in symptoms and in vomiting. Usually the symptoms do not appear less than 15 minutes after eating. Regurgitation can then persist for 1 to 2 hours after finishing a meal.

A detailed history is the most important key to the correct diagnosis, but many patients struggle to differentiate between vomiting and regurgitation, according to Drs. Alexander Kusnik and Sarosh Vaqar of Unity Hospital, Rochester, NY (*Stat Pearls Publishing*, 2022). The correct diagnosis of rumination syndrome is often delayed. It appears that contraction of abdominal muscles is a key mechanism of rumination symptoms.

Kusnik and Vaqar suggest an involved workup evaluation of patients with suspected rumination syndrome, including a careful ED history, endoscopy or CT enterography, esophageal manometry, and EMG of the abdominal-thoracic muscles.

However, Murray and colleagues, in a recent review, suggest that in those with typical symptoms and no other known gastrointestinal problems, simply obtaining a careful history may suffice.

+After making the diagnosis, diaphragmatic breathing techniques are the standard treatment approach. Education is clearly also valuable. Once people understand that this condition can be treated without medications or invasive tests, most are relieved about their symptoms and the anxiety over this condition subsides.

—SC

IN THE NEXT ISSUE

Transitioning from Child and Adolescent Treatment to Adult Services

Moving from child and adolescent treatment to adult services can be challenging for patients, parents, and healthcare professionals alike. British and Norwegian researchers report ways to help parents and patients assume more responsibilities in adult care. Thoughtful communication and preparation can go far to help parents and and patients make the change.

AND

- **Long-term effects of anorexia nervosa on the heart**
- **Adversity and obesity**
- **Non-suicidal injury among inpatients**
- **Assessing and managing veganism and EDs**
- **Preadolescent eating disorders in the US**
- **and much more...**

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