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Working with Patients with Severe and Enduring Eating Disorders Who Refuse Further Treatment

By Joel Yager, MD

University of Colorado School of Medicine, Denver, Colorado

Every so often, clinicians encounter patients with severe and enduring eating disorders ("SEED") who refuse further treatment. In addition to eating disorders diagnoses, these patients often qualify for other diagnoses as well, many in the mood, anxiety, trauma-spectrum, personality, substance use disorder, and obsessive-compulsive disorder spectrums. Such treatment-refusing patients with SEED come in two broad categories.

Patients Who Refuse Any Treatment

The first category includes patients who adamantly refuse to engage in any fashion with their professional providers. They may simply drop out of treatment and disappear from sight. Some of these patients manage to continue to live restricted lives for quite a while, whereas some die within a few months or years, usually from malnutrition or suicide. In my experience, patients who opt to drop out of treatment completely are in the minority. Few patients shun all contact with healthcare providers.

Patients Coping with SEED

The second group, who are more often encountered, are patients coping with SEED who still want *something* from professionals--usually (at least) contact, caring, and medications. But, after years and years of treatment failures or modest improvements followed by inevitable demoralizing backsliding, this group of patients may energetically refuse to go along with treatment programs that focus exclusively on achieving full recovery or that require weight gains. These patients see both of these outcomes as unachievable. Many of these patients have bounced around from treatment center to treatment center, from medication to medication, from therapy to therapy, and from "evidence-based" protocol to "evidence-based" protocol. After being repeatedly bruised in their earnest battles with their disorders, they've "had it."

Consequently, these patients may decline to go on working with clinicians who insist on recovery-oriented goals, and they often regard the clinicians who still believe in the possibility of their full recovery as being deluded and Pollyanna-ish. Instead, based on their long, hard experiences, these patients "know" that re-engaging in recovery-oriented treatments would be futile, and that such efforts would set them up for failure, shame, humiliation, and, not inconsequentially, also would impose considerable financial burden.¹ These foreseeable consequences contribute to a long list of unintended but real potential iatrogenic harms. This group of patients judge their pessimism to be based on reality.

What Is Ethically Possible?

Ethically, what might clinicians do to help these patients? Whereas some clinicians and programs refuse to treat patients who decline to commit to recovery-oriented goals, simply refusing to treat these patients carries its own ethical problems, sometimes bordering on abandonment. Similarly, attempting to treat these patients by imposing involuntary hospitalization and treatment is also fraught with ethical, legal, and practical challenges.² For example, few (if any) programs anywhere in the country are willing or able to assume responsibility for the prolonged, coercive treatment of involuntarily hospitalized patients who might require but consistently refuse nasogastric tube feedings.

Thankfully, alternative, supportable, and justifiable approaches to helping such patients exist. One of the earliest was detailed in the Community Outreach Partnership Program (COPP) developed at St. Paul's Hospital and the University of British Columbia in Vancouver, Canada. In contrast to recovery-focused treatments, the COPP program's stated goals were to:

- Honor patient preferences for treatment goals and pace of treatment (rather than relying on goals determined by the treatment team).
- Favor harm reduction practices over symptom reduction.
- Improve quality of life via skills training and psychosocial rehabilitation programs.
- Establish physiological safety parameters for initiating medical stabilization.
- Treat patients in their own (home and community) settings (i.e., generally avoiding hospitalizations except for brief medical stabilizations if necessary to sustain life).²

These methods are included in formal practice guidelines developed for the treatment of patients with eating disorders published by the province of British Columbia.³

Reducing Harm

The core of this program is harm reduction. Accepting that "The perfect is the enemy of the good," harm reduction attempts to help patients maintain their weights at life-sustaining levels if they are unable to: achieve ideal healthy weights, suffer fewer episodes of binge-eating and purging if they can't totally abstain, decrease their intake of alcohol and other harmful substances if they are unable to abstain, and reduce the frequency of other self-injurious behaviors in order to mitigate damage. Tactics include various elements of diverse psychotherapies and judicious use of medications.

Harm reduction approaches do not abrogate clinicians' responsibilities for searching for and offering definitive cures or for motivating patients to participate in useful treatments – if these exist. Nor do clinicians practicing harm reduction "enable" illness behavior by simply going along with the patient's desires to continue unabated self-harm. Rather, pragmatically, harm reduction approaches are implemented while clinicians wait for better treatments. Clinicians practicing harm reduction do what they can to apply splints to fractured egos, since splinting might not only afford relief but, coincidentally might help these egos heal to the best of their ability. Removing the pressure to "get cured" can be remarkably beneficial for such patients--- and may actually lead to modest improvements.

The COPP principles are consistent with philosophies of patient-centered treatments for patients with SEED. The lack of evidence-based approaches for treating these patients and the need for flexibility in their care has been enunciated by others.⁴⁻⁷ Such flexibility often favors the use of "low-intensity" approaches, contrasting with "high-intensity" recovery-focused approaches.

In some instances, the flexible approaches have included formally enrolling patients debilitated by their illnesses in formal palliative care programs under the care of palliative care clinicians (who usually collaborate fully with eating disorders professionals). While acknowledging that disease-modifying interventions might appear on the scene, palliative approaches for patients with severe and enduring eating disorders focus on quality of life, pain and symptom management, and the importance of treating patients with respect and dignity.⁴ In extreme cases, for example, when patients might be expected to live for less than 6 months, these patients may even receive hospice care.⁵

'Compassionate Witnessing'

In my own work, all these perspectives are couched in supportively engaging patients through an approach I've come to call "compassionate witnessing." This therapeutic alliance starts with high degrees of interpersonal attunement, empathic holding, and nonjudgmental positive regard. I aim to reduce patients' existential fears of being alone in the world through humane validation, affirming their perceptions and experiences. Beyond sustained support, I favor light touches of motivational interviewing, together with realistic (not Pollyanna-ish) hope and encouragement, providing information and access to health and social options patients might wish to engage in, bringing new treatment possibilities and resources to patients'

attention. While inviting patients to explore options, I call out irrational judgments. I may be blunt, and I may even (selectively) invoke humor – and, depending on the patient, sometimes even (generally well-appreciated) dark humor. As patients decline physiologically, I will explicitly acknowledge and explore facts and feelings associated with their inevitable demise-which they will experience as will everyone else at some point. As suitable, I'll see and engage family members, honor their experiences as well, and attempt relationship repairs where possible.

To sum up, my purpose here has been to document that clinicians have a great deal to offer patients with severe and enduring eating disorders. These patients should not be summarily rejected as “hopeless” cases. As clinicians, we should be prepared to help alleviate their considerable suffering.⁶ The fact is that there are lots of things we *can* do.



About the Author Joel Yager, MD

Is currently Professor of Psychiatry at the University of Colorado, Denver. He is also Professor Emeritus at both UCLA's Department of Psychiatry and Biobehavioral Sciences and the Department of Psychiatry and Behavioral Sciences, University of New Mexico, Albuquerque. A past President of the Academy of Eating Disorders, he is Chair and Senior Author of the American Psychiatric Association Practice Guidelines for the Treatment of Eating Disorders (first three editions). And last but not least, Dr. Yager will be familiar to readers as the longtime *Editor of Eating Disorders Review*. As one of the founders of this publication, he is currently Editor-in Chief Emeritus of *Eating Disorders Review*.

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Update: A Challenge to Current Anorexia Treatment

The overall effects of current psychological approaches to treating adults with anorexia nervosa were recently examined in a network meta-analysis by an international study that initially analyzed 14,003 trials, and then a final group of 13 comparative randomized clinical trials involving 1049 patients. The selected controlled trials compared psychological therapies with treatment as usual in adults receiving outpatient therapy for AN. The psychological interventions in the study included cognitive behavioral therapy (CBT), family-oriented treatments, psychodynamic treatments, a form of CBT targeting compulsive exercise, and

cognitive remediation therapy followed by CBT. Other approaches during up to a year of follow-up included Maudsley AN treatment for adults (MANTRA), and specialist supportive clinical management (SSCM) (*Lancet Psychiatry*. 2021. 8:215).

The researchers found that some treatments had modest benefits for patients, but therapies currently recommended in the National Institute for Clinical Excellence (NICE) guidelines, and included in international treatment guides, did not differ significantly from expert treatment as usual in terms of treatment retention, weight restoration, or change in other ED symptoms.

Dr. Andrea Cipriani, of the University of Oxford, lead author of the study, noted that the goal of the study was to highlight the “gaps in current evidence and the need for more and better research to psychological therapies for treating anorexia.” Dr. Cipriani added that because of the relatively low quality and quantity of data available, the results should be viewed as “exploratory” rather than as confirmation that psychological therapies currently available are ineffective for AN patients.

This is an important analysis that makes plain the magnitude of need for developing treatments for adults with AN.

From Across the Desk: When Patients Refuse Treatment

In this issue, our lead article turns a spotlight on one of the most difficult treatment challenges in ED—caring for patients who refuse treatment. Patients with severe and lasting EDs who refuse treatment generally fall into two categories—those who refuse all treatment and those who refuse treatment but actually want something from professionals. This may include personal contact, caring attention, and medications. As Dr. Joel Yager points out, merely refusing to treat these patients poses ethical problems, while attempting to treat them with involuntary hospitalization brings ethical, legal and practical challenges. Much can be done, according to Dr. Yager.



Another article in this issue turns a spotlight on social media, in this case, the mobile app, Tik Tok. Some teens may be inspired by what they see on the Tik Tok homepage, they may be redirected. The algorithm can't yet discriminate between harmless and harmful content, and the teen may be led along by pro-ana videos, where users support and encourage each other to lose weight. Some harmful videos are blocked, but not all—one of the authors' patients accidentally slipped through the safety net and became anorexic.

Finally, look for an article describing a new self-report measure for orthorexia nervosa, or a fixation on “healthy eating” that goes too far. The authors believe this screening test, the TON-17, offers promise as a way to assess the severity of orthorexia and may be useful in treatment.

— MKS

Food Insecurity and Eating Disorders

Few data are available, but one study showed definite links between the two.

Food insecurity is lack of consistent access to enough nutritious food for each person in a household to live an active, healthy life. Currently this problem affects more than 1 in 10 households in the US, and in 2019 this equated to more than 37 million Americans and 11 million children (US Department of Agriculture Economic Research Service. [Available online at:

<https://www.ers.usda.gov/webdocs/publications/94849/err-270.pdf?v=963.1>]

Food insecurity carries health risks, including type 2 diabetes and mental health risks, perhaps including eating disorders (*Int J Eat Disord.* 2019; 52:28).

Dr. Vivienne M. Hazzard and colleagues at the Sanford Center for Biobehavioral Research, Fargo, ND, and the University of Michigan School of Public Health, Ann Arbor, recently reported the results of their study to better define the link between food insecurity and eating disorders. They used data from the *National Comorbidity Survey Replication* (NCS-R) (*Soc Psychiatry Psychiatr Epidemiol.* 2021; doi.org/10.1007/s00127-021-02126-5; published online).

Between February 2001 and April 2003, 9282 adults across the US took part in the NCS-R. Eating disorders were assessed in a subsample of participants randomly selected from persons who completed Part II of the NCS-R. Twelve-month food insecurity was analyzed in 5 areas modified from the short-form US *Household Food Security Survey Module* (*AJPH.* 1999. 89:1231). All participants answered the following question: "How many months in the past 12 months did you either cut the size of your meals or skip meals because there wasn't enough money to buy food?"

A demographic snapshot

The sample was nationally representative and diverse. Among the adults who responded, 46.6% were male and 53.4% were female; 74.3% were non-Hispanic Whites; 11.5% were non-Hispanic Blacks, 10.2% were Hispanic/Latin, and 4% fell into the "Other" category. Among the sample, 11.1% had experienced food insecurity; in addition, using *DSM-IV* criteria, 1.5% met the criteria for a bulimic-spectrum eating disorder, 8.7% met the criteria for a mood disorder, and 19% met criteria for an anxiety disorder.

The results showed that food insecurity increased the risk of BN by 3.8-fold. The risks of depression and anxiety disorders were also elevated, but to a lesser degree (about 2.5-fold and 1.7-fold, respectively). The authors' report corroborates a growing body of evidence indicating a link between food insecurity and eating disorders (*J Am Acad Child Adolesc Psychiatry.* 2012. 51:1293).

Much research remains, but because food insecurity disproportionately involves racial and ethnic minorities, the authors suggest that any interventions must also include work to eliminate changes in other negative factors that can lead to food insecurity, including poor housing, education, unemployment, and criminal justice. The authors also point out that using *DSM-IV* criteria for BN, binge-eating disorder, and anorexia nervosa may have led to underestimates of food insecurity.

Social Media and Disordered Eating

How a seemingly innocent app and Tik Tok can promote disordered eating.

Social restrictions during the COVID pandemic have resulted in teens spending more time on social media, including visiting the website Tik Tok. A mobile application created in 2016, Tik Tok now has more than 800 million users, at least a fifth of whom are teenagers.

A recent case report from Italy demonstrates how seemingly helpful social media can promote non-suicidal injury and anorexia. While many social media platforms are now filtering pro-anorexia content, Tik Tok still broadcasts themes of eating disorders and self-harming behaviors, although this is usually initially disguised, according to a team of researchers led by Dr. Giuseppe Logrieco and colleagues in Rome (*Int J Environ Res Public Health.* 2021. 18:1041). The team's investigation offers a helpful look at how seemingly harmless "dance videos" can actually contain harmful material.

Losing weight for an 'extreme' experience

The authors described the experience of a 14-year-old girl diagnosed with AN. Beginning in April 2020, a month after COVID restrictions led to a nationwide lockdown in Italy, the girl reported progressively restricting her food intake while increasing her physical activity to 4 or 5 hours a day on a treadmill, eating

low-calorie foods, and taking an average of 8 laxative pills a day, all in an effort to speed weight loss. Dr. Logrieco reported that when the teenager was first seen in the emergency room, she had severe bradycardia and over the past 6 months had lost 16 kg (35 lb) and currently had a body mass index of 14.2 (mg/kg²). She had intentionally refused food with the intent of being hospitalized in order to lose weight, not because she had a poor self-image, but to try 'an extreme experience,' she said. She further explained that her life had always been too simple and free of suffering. Her inspiration apparently came from Tik Tok, she explained. She claimed to be inspired by videos on Tik Tok, where she viewed many teens sharing experiences of deep suffering, often centered on non-suicidal self-injury or eating disorders. She was hospitalized and eventually discharged to outpatient treatment.

As the authors explained, Tik Tok records data from single users and proposes videos that first capture a youth's attention by creating a "For You" page. If a user accidentally sees a video on anorexia on the homepage and is inspired to search for similar videos, an algorithm will keep suggesting such videos—just as in the case of their patient. The Tik Tok algorithm can't yet discriminate between harmless and harmful content. Pro-ana videos, where users support and advice and encourage each other to lose weight, are blocked by the platform's control over content (self-harm, suicide, and other dangerous actions), but others slip through the safety net, including those that are "anti-pro-ana." This is what happened to their patient. During the pandemic lockdown she had more time on her hands and at first turned to Tik Tok for entertainment. By doing so, she encountered videos about eating disorders and self-injury not related to suicide.

Watching for hidden messages

Though the authors noted this was a single case, they wanted to demonstrate how seemingly innocent social media can promote self-injury and disordered eating. They hope to raise awareness of the influence that social media can exert on young teens, whose parents are usually unaware of the connection between an entertaining video and promotion of disordered eating. They stressed how easy it is to access messages on social media that are harmful to both mental and physical health of teens, and that can actually trigger imitation of harmful eating behaviors.

Disordered Eating Among Male Elite Athletes

Why irregular eating patterns are often overlooked among men

Eating disorders and disordered eating are among the most common mental illnesses found among elite male and female athletes. Eating disorders are often associated with female elite athletes, but they are often overlooked among elite male athletes, according to Dr. Yannis Karrer and others at the University of Psychiatry, Zurich. After doing an extensive literature search, Dr. Karrer and others identified 80 studies of disordered eating and eating disorders among male elite athletes (*BMJ Open Sp Ex Med.* 2020.0:e00801).

While male athletes share some characteristics with female elite athletes, there are some real differences, according to Dr. Karrer and colleagues. The very traits that seem so admirable among male elite athletes, such as perfectionism and a powerful V-shaped physique and muscular shoulders, may actually make male athletes more susceptible to an eating disorder. In addition, certain personality traits required to be a good athlete, such as perfectionism, are similar to some traits also found in anorexic patients. The individual sport itself may increase risk—for example, a greater ratio of power/musculature in bodyweight/fat mass often enhances performance. In addition, physical appearance may influence the ratings of the judges in aesthetic sports. Whereas in weight class sports weight loss may be necessary to match the weight class; in one study weight and shape were attributed to improved performance by 81% to 94% of elite athletes (*Eat Weight Disord.* 2017. 22:61).

As the team reported, besides the pressure to perform well, male elite athletes are encouraged to have a V-shaped physique with muscular shoulders and an emphasis on the upper body, which is difficult to achieve without serious dieting and exercise. Among male elite athletes, the authors found body dissatisfaction was

linked to disordered eating in 6 studies; 3 studies found no significant association, and 1 had a negative association.

Two categories of comorbid mental illnesses were found in EDs among male elite athletes: affective disorders and substance abuse disorders. Self-report studies reported significantly increased instances of depression and anxio-depressive states.

Telltale signs

In another report, Dr. Madison Eichstadt and colleagues at West Virginia School of Medicine, Morgantown, note that males may make up to 25% of people with eating disorders, and that certain diagnostic criteria can help make the diagnosis (*Sports Health*. 2020 12:327). Conformity to perceptions of the male athlete as unbreakable, stoic, and self-sacrificing may be part of the sports culture and may contribute to disordered eating. Male athletes may avoid seeking help because of shame about symptoms, general stigma around mental health treatment, or even due to the widespread stereotype that eating disorders are a female problem.

There are many signs and symptoms of EDs in male athletes, according to the authors. Male athletes may have chest pain, heart palpitations, shortness of breath, abdominal bloating, heartburn, constipation, and lowered sex drive. Other telltale signs include intolerance to cold, fatigue or lethargy, or marked changes in weight or body mass index.

To help make the diagnosis of an eating disorder, Dr. Eichstadt and colleagues recommend using the SCOFF questionnaire, a 5-item screening instrument. More than 2 affirmative responses on the questionnaire indicate the need for further assessment. Another helpful tool that can uncover unhealthy exercise behavior in athletes is the 21-item Compulsive Exercise Test. The authors note that clinical interviews may be more helpful than self-report questionnaires because male athletes tend to underreport some symptoms on screening tools. Direct questions about ED symptoms and behaviors during the clinical interview may produce much more accurate information.

Management approaches

Once an athlete has been identified as having an ED, Dr. Eichstadt and her team recommend referring the patient for treatment as quickly as possible. Barriers will exist, for stigma is a powerful barrier for male athletes, and contributes to underreporting and delays in seeking care. They suggest using an inter-professional team, including registered dietitians and a psychotherapy professional. Some helpful elements of in-person interviews include a focus on food as nourishment, close monitoring of the athlete and interruption of ED behaviors, such as food rituals, limited groups of foods, body-checking and compensatory behaviors. One helpful note is that specialized treatment centers often offer special treatment tracks designed for male athletes with eating disorders.

Men with EDs who wish to go back to their sport should do so gradually and under close supervision, according to the authors. Usually a sports medicine physician will make the decision when and if an athlete can return to active competition. The authors noted that the existing literature suggests taking a combination approach, including extensive education of athletes, their families, and coaches; periodic assessment of psychological and somatic parameters for early detection of disordered eating, including a discussion of the consequences and comorbidities. Another helpful step is professional counseling of the athlete about nutrition and sport-specific factors by a professional experienced in working with athletes in a specific sport. Use of a multimodal therapeutic approach with psychotherapy and psychopharmacology, again by a mental health professional specialized in disordered eating and ideally experienced with working with athletes is also helpful. Treatment of comorbid psychiatric and somatic conditions should be done by psychiatrists, endocrinologists, and other professionals. A final suggestion includes development of regulations by sports federations, such as adjustment of weight classes and rules in weight-class sports. In addition, a helpful advance would be adjustments of judging criteria in aesthetic sports and strict compliance with the International Olympic Committee (IOC) return to play guides.

The authors also stress the need for longitudinal studies, which are indispensable for examining the prognosis of disordered eating among male elite athletes.

Genetics and Environment May Influence Diagnostic Markers for AN and BN

A study shows diagnostic crossover.

Although bulimia nervosa and anorexia nervosa are viewed as distinct diagnoses, patients share a number of common symptoms, and diagnostic crossover is also very common. From 10% to 54% of persons with AN develop BN, and up to 27% of patients with BN go on to develop AN during their illness (*Am J Psychiatry*. 2005. 162:732). Similar patterns of comorbidity are also seen in the two eating disorders.

One way to try to understand the relationship of AN and BN is using genetic methods. In an interesting variation on the common genetic research strategy of using identical and non-identical twin pairs, Dr. Shuyang Yao, of the Karolinska Institutet, Stockholm, Sweden, and others used clinical diagnoses of AN and BN in a large population-based sample (782,938) of AN and BN patients. The participants were randomly selected sisters (334,433 pairs) and half-sisters (57,036 pairs) born to the same biological parents in Sweden between 1970 and 2005.

The information came from several Swedish national registers linked by a unique individual ID number. The authors used structural equation modeling to study the heritability of AN and BN and the contribution of genetic and environmental effects on any overlap between the two diagnoses (*Psychol Med*. 2021. 51:62). The authors note this is the first quantitative genetic study on clinically diagnosed AN and BN and their overlap.

Phenotypic correlations

The study confirmed and extended prior work showing an important genetic component to eating disorder risk: heritability for clinically diagnosed AN was 43% and for BN was 41%. Moreover, there was a very significant genetic component to the overlap between AN and BN. The authors also found significant unique environmental effects in their study, as both disorder-specific and common to the two eating disorders.

These results provide another level of evidence on the close relationship between AN and BN, perhaps even at a fundamental causal level.

Weight Suppression after Treatment for AN

A study suggests focusing on a tried and true method for normalizing weight.

Weight suppression (highest weight minus current weight) has received a lot of interest in our field, and has been linked to more severe illness. Most of this work has been done in patients with BN, and the importance of weight suppression for those with AN, and its treatment are less clear.

To help clarify this issue, a team led by Dr. Blair Unilacke of Columbia University Irving Medical Center, New York City, studied 93 weight-restored women with AN who had taken part in a relapse prevention study, where they received fluoxetine or placebo with cognitive behavior therapy (CBT) for one year, or until they experienced relapse. When they entered the study, all participants had reached body mass indexes (BMI, mg/kg²) of at least 19. They were weighed before randomization, and then at each weekly therapy session. Relapse was defined as a BMI at or below 16 for 2 consecutive weeks or severe physical or psychological deterioration during that time. Successful weight maintenance required that the participant had not relapsed and that the BMI never fell below 18.5 for 4 consecutive weeks. Weight suppression was calculated by subtracting the patient's current weight (in pounds) from her reported highest weight when not pregnant.

They also calculated weight suppression by using the difference between the patient's highest previous BMI and the current BMI. Fifteen women at randomization were shown to be above their highest weight prior to acute treatment for AN.

Results: Different from the original hypothesis

At randomization, the patients mean body weight was 119±9.9 lb, and the mean BMI was 20.3±0.51. The mean weight suppression was 13.0 to 14.8 lb. Contrary to their predictions, weight suppression was not related to treatment response.

The authors noted that neither weight suppression nor its interaction with BMI was related to relapse. More work will be helpful to further understand the potential role of weight suppression in those with AN but, for now, the authors suggest continuing to focus on traditional weight restoration goals for AN patients.

TON-17: A New Self-Report Test for Orthorexia Nervosa

A shortened test helps assess risk.

Orthorexia nervosa (ON) has been defined as a pathological obsession, fixation, or preoccupation with healthy food. However, with ON, "healthy eating" goes too far, and can lead to an eating disorder. Thus far, ON has not been recognized as a separate disorder in the *Diagnostic and Statistical Manual of Mental Disorders (DSM-5)* or in the *ICD-10*. ON is still a subject of debate. For example, is ON a single syndrome of an eating disorder or a variation of other syndromes, such as anorexia nervosa, avoidant-restrictive food intake disorder (ARFID), obsessive-compulsive disorder, or an anxiety disorder?

Orthorexic tendencies are associated with special eating behaviors, such as frequency of dieting or adoption of vegetarian or vegan diets and a pathological preoccupation with healthy eating (*Eat Weight Disord.* 2019. 24: 209). ON goes even further, to concern about the manner and materials used in the preparation of food—which may result in detailed planning, shopping, and preparation of food, and taking large amounts of time. Due to the many self-imposed dietary restrictions and a lack of trust in food preparation by anyone by themselves, individuals with ON usually refuse to eat when away from home and may avoid social gatherings, leading to social isolation.

Development of a screening test for ON

Dr. Aleksandra M. Rogowska at the University of Opole, Poland, and colleagues at the University of Technology, Katowice, Poland, designed the *TON-17* (*J Clin Med.* 2021. 10:1637) as a new diagnostic measure for ON. The authors note that early studies of ON were conducted using the *Bratman Orthorexia Test (BOT)* and *ORTO-15* (*Eat Weight Disord.* 2005.10:28). However, concerns have been raised about the test's validity and reliability, and another measure with documented strong psychometric properties would be useful.

The authors set out to develop and validate a new test for ON, the Test of Orthorexia Nervosa, or TON. A group of 786 adults (mean age: 26 years), including 437 women (56.98%), participated in the study. All study participants were Caucasian Polish citizens.

The final *TON* was developed by first asking a set of 80 questions describing thoughts and behaviors related to ON. The researchers used questions from the *ORTO-15*, which measures cognitive, rational, clinical, and emotional aspects of orthorexia, in addition to the *Eating Attitudes Test (EAT-26)*, an abbreviated 26-item version of the *EAT-40* developed by Garner et al. (*Psychol Med.* 1982. 12:871); the *Disordered Eating Attitude Scale (Percept Mot Skills.* 2010. 110:379); the Health Behavior Inventory (*World Health Org Tech Ser.* 2000. 894:1), the participant's body mass index (BMI, mg/kg²; the World Health Organization Quality of Life test; and measures of generalized anxiety and obsessive-compulsive disorder (OCD). The first version of the test questionnaire (*TON-40*) was then reduced to 17 main items. The factor structure was defined, and convergent validity was established.

Gender and ON

Total scores on the *TON-17* indicated that women scored significantly higher than men, while no gender differences were found in factor 3, which records the symptoms of disorders. More research will be necessary to confirm any gender differences. A weak positive association was found between BMI and ON. Interestingly, the study examined the relationship between ON and various dimensions of healthy behaviors. Participants with ON seem to show a wide range of healthy control behaviors, a positive mental attitude, and healthy practices and eating habits. Almost all scales on the *TON-17* were moderately or weakly correlated with healthy behaviors. The authors feel this might explain why those with a higher risk of ON tend to overestimate their health. The authors feel that their new test offers a promising way to assess the presence and severity of orthorexia. The new tool may also be useful for gauging treatment progress.

Questions and Answers: Strange Oral Signs

Q. One of my newer patients, now being seen for bulimia nervosa, has developed dark discolorations on her lips, especially on the lower lip. I haven't seen this before; can you explain why this is happening? (J.W., Phoenix, AZ)

A. Many of the oral complications of bulimia nervosa are well known (swelling of the salivary glands, damage to teeth), but this may represent another one. The most probable explanation is that this is the result of irritating chemical action of self-induced vomiting. Although it can appear in other forms of eating disorders, BN, with repeated and irritating vomiting, is the most common cause. The reddish or purplish discoloration appears most often in the vermilion border (or edge) of the lips and affects the lower lip most often. The size of the discoloration and degree of redness vary. In severe cases, exfoliative cheilitis or thickened, scaly skin, is present (Panico et al., *J Psych Res.* 2018. 96:178).

A good article on the overall topic of oral signs of eating disorders in teen adolescent patients is found in a recent study reported in the *European Journal of Pediatric Dentistry* (2021. 22:155). Dr. M. Monda and colleagues at the University of Rome describe a series of oral signs of eating disorders, including the discoloration described here, labial erythema. These problems are often uncovered by dentists and oral surgeons, and knowledge about the link to EDs leads to a referral to an ED professional. In fact, dental professionals are often the first to see ED-related oral problems, because dental visits often occur more often than other health care checkups.

— SC

In the next issue

A Crisis in Care for Patients with Anorexia Nervosa

Two leading eating disorders experts, Dr. Walter Kaye and Dr. Cynthia Bulik, explore the many reasons for today's crisis of care for AN patients. Among the problems are few available treatments, loss of academic programs, poor insurance coverage and reimbursement, and lack of standards of care. One result is that many untested but superficially appealing treatments are being marketed directly to consumers and clinicians as well. Positive solutions include developing obligatory standards of care based on evidence-based research, and changing care models, among others. Last but not least, funding must be increased for AN research and treatment.

PLUS

The Global Burden of Disease Study: Adding two ED Categories

PLUS

- **How Well Can Psychotherapist Predict the Long-term Outcome for AN and BN Patients at the End of Inpatient Treatment?**

- **Medical Comorbidities and Endocrine Dysfunction in Low-weight Females with ARFID**
- **Stepped Care for Adults with Comorbid BED and Obesity**

And, much more...

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