Eating Disorders Review
May/June 2019
Volume 30, Issue 3
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Some Highlights of ICED 2019
A Focus on Innovations in Eating Disorders Care

At the 2019 International Conference on Eating Disorders (ICED), held in New York City from March 14-16, more than 1400 attendees from nearly 50 countries learned about numerous innovations in eating disorders care in workshops, poster sessions, and plenary sessions. The 26th annual conference's theme was "Start Spreading the News."

A keynote address highlighted new information about recognizing persons at risk of committing suicide.

Keynote Address: Why People Die By Suicide

Keynote speaker Dr. Thomas Joiner, Robert O. Lawson Distinguished Professor of Psychology at Florida State University, Tallahassee, proposed three warning signs that mark individuals at the highest risk of suicide: (1) the feeling of being a burden on loved ones; (2) the sense of isolation; and, as he noted (3), "perhaps chillingly, the learned ability to hurt oneself."

Dr. Joiner, who is author of 18 books, including the 2010 *Myths About Suicide*, cited "the American gloom" of rising suicide numbers in the US over the past 30 years, even as suicide rates have fallen in the rest of the world. He noted that it is very concerning to see "these rates increase every year without exception; in 2017, we lost more than 47,000 people by suicide, on a pace for 50,000, compared to falling rates in the rest of the world, where suicides have declined by one-third."

What is it about the American context that is driving the suicide rates up, he pondered? Dr. Joiner said there are a few candidates for the steady increase: the growing widespread use of opiates, widespread gun ownership, and a culture that has built a relationship to violence through computer games and guns. Another factor may be fragmentation found in the community. This social fragmentation can be found in the family, neighborhoods, and fragmentation in civic and religious organizations, for example. This is a uniquely American phenomenon, he said, adding that "It is dispiriting that over decades we have made few improvements in our knowledge of suicide and nonlethal suicide attempts as well."

Physical Signs of Suicidal Intent

Dr. Joiner also described a number of physical clues that may warn clinicians of impending suicide. Using case examples with videos, Dr. Joiner offered several examples from his own practice and others. Clues to individuals who may be considering suicide include withdrawal from eating, weight loss not based on physical appearance, and social withdrawal. He also cited outbursts of rage, pacing, and wringing of hands as behavioral manifestations of agitation as warning signs.

Flat affect is also a warning sign, he said. Another possible risk marker Dr. Joiner's group is investigating is reduced blinking of the eyes. The average number is one blink every 3 seconds, and initial evidence suggests this rate may be reduced in suicidal people (Joiner et al., 2016). Other clues include a geometric increase in intent that is more specific than mere ideation, withdrawal and social and self alienation. The

individual may view himself with disgust or believe his selfhood is a burden. Other signs include insomnia, nightmares, and irritability.

A three-factor theory—concept capacity for suicide, the idea that people are fearless about the prospect of death and are fearless about the prospect of killing. Suicide is not just dying but killing as well, he said. Some individuals are fearless about bodily harm, but there is more to it, Dr. Joiner said. An individual may have a perception that he or she is a burden and that death will be worth more than life.

Dr. Joiner also turned to "questions that can be asked in a non-therapist setting." The most useful questions have to do with intent, he said. For example, he added, "The single best question to ask about intent is, 'On a zero to 10 scale, how much do you want to take your life?'" This question is very helpful, he said, and should be supported with other observations, those things that are hard to conceal, such as the blink rate, and a history of insomnia, nightmares, and behavioral withdrawal.

He added that in the US, males have a 3:1 preponderance over females in suicide rates, and in some countries there is a 10:1 male to female ratio. Suicidal ideation and nonlethal ideation are more common in females, he said. He also noted that the rate among adolescents is actually much lower than that in older adults. An audience member asked if anorexia nervosa might actually be a sign of suicidal intent. He replied that adolescents don't want to die but don't know how to live. For the AN patient, the motivation is thinness, and while this can be lethal, but usually does not fit the suicidal mode.

Finally, Dr. Joiner pointed to work by special groups to prevent suicide; one such group is the The Military Suicide Research Consortium (MSRC), which is working to identify promising suicide interventions. MSRC is part of an ongoing strategy to integrate and synchronize US Department of Defense and civilian efforts to implement a multidisciplinary research approach to suicide prevention. Funded through the Defense Health Program, this research aims to enhance the military's ability to quickly **identify** those at risk for suicide and to provide effective evidence-based prevention and treatment strategies.

From Across the Desk: Learning and Passing Knowledge Along

As always, the 2019 ICED meeting in New York offered many outstanding and thought-provoking sessions by eating disorder experts from around the world. It is always very difficult to single out one or a few presentations, and this year was no different. Dr. Joiner's thoughtful approach to warning signs of patients considering suicide is a good example. In the next issue, we will include a plenary session by Dr. Allan Kaplan, of the University of Toronto, which tackles the very difficult subject of compulsory treatment for patients who have life-threatening eating disorders and who do not wish to get well. The challenge to clinicians is to continue to find more effective ways to treat people with eating disorders, and to pass the knowledge on.

— MKS

UPDATE: Identifying Eating Disorders in the Military

Two University of Kansas researchers are developing a screening tool to better detect eating disorders among the US military (University of Kansas website, news.ku.edu/2019/04/18). With a 3-year, $1.7 million grant from the Department of Defense, Drs. Kelsie Forbush, associate professor of psychology, and Alesha Doan, professor of women, gender, and sexuality studies at the University of Kansas, Lawrence, also hope to identify organizational barriers to identifying and treating soldiers with eating

disorders.

Dr. Forbush noted that active military face a range of dangers on the battlefield, and the risks of later post-traumatic stress are well documented. However, much less is known about other elements at play, including constant pressure to meet fitness standards, physical requirements to enlist in the service, and expectation for leaders to maintain levels of fitness as role models for their troops. All these can also promote eating disorders. Dr. Forbush added that few of us are aware that the military has rigorous standards "that require military personnel to meet specific body mass and other physical fitness standards." And there are more realities that can lead to disordered eating among servicemen and women—such as ready-to-eat, calorie-dense meals, and high-calorie cafeteria-style "comfort foods," which may cause weight gain.

The researchers are working to improve the ability to predict which soldiers will recover or relapse from an eating disorder, with the hopes that their results will not only help in the understanding of the scope and effects of eating disorders in post-911 veterans but also demonstrate the need to develop eating disorder programs in the VA system.

Is There a Role for Mindfulness in Treating Eating Disorders?

Three studies seek to clarify support for the benefits of mindfulness.

Two recent studies and a meta-analysis dig deeper into the question of what role mindfulness should play in eating disorder treatment. This is not a new question, but one that has been examined for some time. Initially, the focus was on binge eating, but recent work has broadened this to include a variety of eating disorders. Recent evidence provides still more support for the benefits of mindfulness.

Recently, Sala and Levenson (*Eur Eat Dis Review.* 2019. 27; 295) conducted a study examining the relationship of mindfulness to eating disorder symptoms over time. A group of 124 people who had an eating disorder (mostly anorexia nervosa [AN]), and 290 college students taking part as comparison participants, were assessed at baseline and again at 1 month. Assessments included the Eating Disorder Diagnostics Scale, EDI-2, and the Facets of Mindfulness scale, to measure aspects of mindfulness.

The results showed that in those with AN, low acting with awareness scores predicted higher drive for thinness and higher bulimia nervosa symptoms one month later. The authors note that identifying this relationship could open a route for intervention development that might help to elevate some AN symptoms.

A second study featuring group treatment

Second, Stice and colleagues (*JCCP.* 2019; 87:79) recently examined the potential benefits of supportive mindfulness group treatment for individuals with diverse eating disorder diagnoses (71% had bulimia nervosa [BN] or sub-threshold BN). In this study, 84 people took part in 8 weeks of treatment and completed a 6-month follow-up visit including completing the Eating Disorder Diagnostic Interview. A comparison treatment was a dissonance-based treatment for eating disorders, the Body Project Treatment. The results at 6 months showed that remission from an eating disorder diagnosis occurred in 77% of those who received the Body Project condition and 60% of those who received the Supportive Mindfulness Group treatment. Although there was a numerical advantage for the dissonance-based approach, the difference was not statistically significant.

Finally, a recent meta-analysis attempt to collect and interpret the diverse literature on mindfulness in the field of eating disorders (Barney et al. *Eur Eat Disord Rev*. 2019. 27:352). As the authors note, most of this is focused on BED and BN. Approaches examined in the meta-analysis included typical mindfulness approaches as well as DBT and one could argue that Acceptance and Commitment Therapy (ACT) would fit in this category as well. The authors identified a total of 10 mindfulness-based studies and 22 DBT studies.

How, and How Well, Do These Treatments Work?

Overall, mindfulness-based approaches appear to show benefit across these studies but as Barney and colleagues note, this work has tended to focus on eating disorder outcome. Specifically, they recognize that little effort in this work has gone to identifying mechanisms, in most studies. Identifying such mechanisms would be useful for translating these results into effective treatments.

Predicting Consequences of Binge Eating Among Adults with Type 1 Diabetes

Objective binge-eating was found in nearly half the participants in a 3-day test.

Disordered eating has long been recognized as common among individual with type 1 diabetes (T1D), and includes traditional ED symptoms such as binge eating, restriction, and compensation through self-induced vomiting, as well as restricting insulin in an effort to control weight.

In a recent study of adults with TID, Duke University researchers showed that diabetes distress may be related to eating disordered behavior (*J Eat Disord*. doi.org/10.1185/s40337-019-0237-3). Dr. Ashley A Moskovich and colleagues also found that individuals who tend to have negative affect and diabetes distress before eating are at risk of objective binge-eating (OBE) at the next meal.

Dr. Moskovich notes that eating control could focus not merely on weight but also on prevention of short- and long-term complications of diabetes. Thus, a better understanding is needed.

Study design

The 83 participants in Dr. Moskovich's study were part of a larger study investigating eating disorder symptoms among individuals with T1D (*Diabetes Care*. 2015; 38:2025; *Psychosom Med*. 2018; 20:222). The participants ranged in age from 18 to 65 years and had T1D without hypoglycemic unawareness or cognitive disabilities that would interfere with their ability to independently manage their diabetes. Methods were particularly rigorous: All study participants completed 3 days of ecological momentary assessment of mood and eating behavior using a telephone-based survey system. Blinded continuous glucose monitoring enabled the researchers to monitor glucose levels throughout the test period and to look a time relationships to EMA measures.

The authors reported that level of participation was very high and participants answered an average of 96% of the prompts and reported an average of 4 eating episodes per day.

The role of negative affect

Of the 1002 eating episodes reported by participants, 80 were determined to be OBE episodes, and 43% of the study participants binge-ate at least once during the 3-day assessment. The odds of OBE were higher among persons with higher levels of pre-meal negative affect and increased emotional distress and higher 2-hour postprandial blood glucose levels following OBE versus non-OBE episodes. Nearly half of the participants reported OBE events during the 3-day test period.

These results highlight OBE as an important problem in T1D, both psychologically and metabolically. They also confirm the relationship between negative affect and binge eating reported in the past.

The authors correctly note that interventions focusing on helping patients cope with negative affect, and specifically diabetes distress, may be helpful for T1D patients.

Bullying and Disordered Eating Behaviors

Bullying sets up a cascade of problems leading to disordered eating.

A recent review and meta-analysis supports the role of bullying as a risk factor for ED (Lie, Ro and Bang, *IJED*. 2019, May, 497-514). Two psychologists at the University of Ottawa, Canada, have reported on the longitudinal relationships of eating disorders, anxiety, and bullying (*Child Psychiatry Hum Development.* 2019 Mar 26. doi:10.1007/s10578-019-00884-7.)

In their 4-year prospective study, Drs. K.S. Lee and T. Vaillancourt selected 657 students from grades 5-8 (aged 10-14 years) using the Canadian McMaster Teen Study, to be assessed on bullying and symptoms of anxiety and disordered eating.

The authors found that bullying victimization started a "cascading effect in bullying perpetration," which then led to disordered eating behavior. Anxiety directly impacted disordered eating. The effects were the same in girls as in boys.

The authors suggest that bullying prevention programs may be helpful, and they advocate early intervention. [One helpful website for parents is **www.stopbullying.gov** . See *Table 1*.]

Table 1. How to Get Help for Bullying

The problem	What you can do
There has been a crime or someone is at immediate risk of harm.	Call 911.
Someone is feeling hopeless, helpless, thinking of suicide.	Contact the **National Suicide Prevention Lifeline** online or at 1-800-273-TALK (8255). The toll-free call goes to the nearest crisis center in our national network. These centers provide 24-hour crisis counseling and mental health referrals.
Someone is **acting differently** than normal, such as always seeming sad or anxious, struggling to complete tasks, or not being able care for themselves.	Find a local **counselor or other mental health services** The **Mental Health and Addiction Insurance Help** consumer portal prototype can help consumers get to the correct resource to solve their Mental Health and Substance Use Disorder insurance coverage issue.
A child is being bullied in school.	Contact the:

	1. Teacher 2. School counselor 3. School principal 4. School superintendent 5. State Department of Education See more on **working with the school**.
The school is not adequately **addressing harassment** based on race, color, national origin, sex, disability, or religion.	Contact: • School superintendent • State Department of Education • U.S. Department of Education, **Office for Civil Rights** • U.S. Department of Justice, **Civil Rights Division**

An Odd Couple: Childhood Infections and Risk of Eating Disorders in Adolescence

More studies will be needed to help explain this connection.

Limited data have suggested a link between infection and risk of an eating disorder. A new study provides solid evidence that girls who have serious or repeated infections during their childhood are at higher-than-normal risk for developing eating disorders in their teens, according to a new study of 525,643 Danish girls.

The paper, by Lauren Breithaupt and her colleagues, tracked every girl born in Denmark from 1989 through 2006 by recording all prescriptions filled for antibiotics and other anti-infective agents, as well as hospitalizations, through 2012 (*JAMA Psychiatry*. 2019; April 24. . doi: 10.1001/jamapsychiatry.2019.0297).

The results showed increase risk of anorexia nervous (by 22%), bulimia nervosa (by 35%), and EDNOS (by 39%) after prior hospitalization for infection, as opposed to those never hospitalized for an infection. A similar relationship, where a patient received at least 3 prescriptions for an infection, increased the risk by 23% (AN), 63% (BN), and 45% (for EDNOS). There was some evidence of adult response with more hospitalizations or more antibiotic prescriptions. The authors note that these findings do fit conceptually with recent genetic research implicating regions with genes related to immune function and a large genome-wide association study with anorexia nervosa.

Several possible causes, but none proved

Because this was an observational study, no definite cause for the link between infection and eating disorder could be identified. Was it genetics, stress or anxiety, or the anti-infective agents upsetting the microbes in the gut? The authors could not definitively point to a cause, and more study will be needed to explain the reason or reasons that anti-infective agents could be tied to later development of eating disorders.

Using Twitter to Explain Attrition in Online Eating Disorder Communities

Dropping out was both an individual and collective action.

The use of social media as a way to get health information has arrived almost like a tsunami, bringing good with bad, and now is widely used by people with eating disorders. The existence of these online communities is well known, but there has been little information about why individuals leave such online communities. A recent study of Twitter users by researchers at the University of Southampton, UK, and Universitá Cá Foscari, Venice, Italy, sought to investigate dropout behaviors by people with eating disorders who use Twitter, and also to analyze the personal emotions and social networks on dropout behaviors (*Journal of Medical Internet Research.* 2019; 21:May).

The researchers used "snowball sampling, "which involves having participants with whom contact has been made to use their own social networks to refer the researchers to others who might wish to contribute to or potentially participate in the study. They had first identified individuals who self-identified with eating disorders in their Twitter profile description, as well as in tweets and social networks. This effort led to more than 2 million tweets from 208,963 Twitter users. An automatic sentiment analysis tool was used to measure individuals'' emotions and dropout of users was calculated 18 months later.

The authors, led by Tao Wang, MSc, of the University of Southampton, identified 2906 Twitter users who posted more than 10 tweets, and at least 50 words. Only 357 users self-reported gender information in their profiles, and 84% (300) were females. Of those who reported age (1015), the mean age was 17.3 years. The estimated median Twitter online lifetime was 6 months. And, users with the same dropout status tended to cluster together.

The authors also found that the dropouts were interested the thin ideal and used hashtags such as "mythinspo" and "skinny 4xmas," while nondropouts used hashtags such as "selfharmprobz," "bulimicprobz" or "anorexicprobz" and often offered emotional support for others with eating disorders. Users with negative emotions often engaged in promoting thin ideals, using hashtags such as "bonespo" and "my thinspo," showing very similar interests as the non-dropouts. The researchers concluded that engaging in harmful online content and coping with stress was a form of sensation-seeking, a basic personality type defined as seeking varied, novel, and intense sensations and experiences, with a willingness to take risks.

An emotional side to dropping out

The study also cast a light on online eating disorders communities, according to the researchers. Twitter users had a high (85%) dropout rate and a short online lifespan between creating their Twitter account and stopping posts (half dropped out by 6 months). Those who shared with other users and discussed their health problems and provided pro-recovery content posted much less often than those who posted pro-eating disorders. Thus, pro-recovery users might tend to leave such an online community to avoid the risk of further deterioration or even relapse. This might also explain why pro-eating disorder content is found to be far more common and widespread than is pro-recovery content. ED users tended to connect with others with the same dropout status on Twitter; this implies that dropping out of an online ED community is not only a reflection of individual experience or individual choice but also a property of group interactions.

Questions and Answers: Self-Harm After Bariatric Surgery

Q. One of my young adult patients, who has had a history of obesity, anorexia nervosa (AN), and binge eating disorder (BED) successfully underwent sleeve gastrectomy, which stopped her binge eating. She lost significant weight after surgery but has since developed self-injurious behavior. Do you have any suggestions?

A. A Danish study describes a case very similar to your patient's (*J Eat Disord.* 2018; 6:24). Dr. Louise Taekker and her co-workers at the University of Copenhagen, Denmark, treated a 24-year-old woman who began cutting herself after undergoing successful bariatric surgery. Their patient was a participant in a multidisciplinary research project, the GO Bypass Study. The study's goals were to identify factors contributing to variations in weight loss after bariatric surgery. The study followed patients for about 2 years and examined them during 5 study visits over that time: at baseline, 1 week before gastric bypass, and 1.5, 6, and 8 months after surgery.

This patient had a severe history of both restrictive-type AN and BED beginning at age 16. By age 18, the eating disorder moved to BED, and her lowest weight was 99 lb (45 kg) and her lowest BMI was 16.5. She had a high degree of body dissatisfaction, which had been present since she was a child. She avoided scales and mirrors and avoided public displays. When she had emotional challenges, such as after an argument with a partner, she would binge-eat. She also had depression, and was being treated with antidepressives, which were described as helpful. She described her binges as something that provided a sense of security and comfort in a world of pain and chaos. Her partner was emotionally supportive, and had helped the patient gain healthier eating habits. While the psychosocial assessment found that the patient needed emotional support, and close monitoring, gastric surgery was not ruled out.

In-depth interviews revealed a rocky course after surgery. About a year after her gastric surgery, she left her partner of 7 years and revealed that she had begun intentionally cutting herself several times a week. In the months after the breakup, she had also become anxious, confused and desolate, and made two successive suicide attempts. The patient said this behavior had become a substitute for binge eating.

The authors found that while the patient's overall psychiatric symptoms remain high, and above the clinical case cut-off, symptoms of an eating disorder and depression have improved notably after bariatric surgery. Despite this, the patient continues to have difficulty regulating her emotions, and her attachment style is more anxious and her avoidant behavior has increased.

The authors note that the cutting behavior reflects that the binge eating and self-harm served the same function, to regulate emotions. They also commented that research and clinical literature argue that symptoms can substitute of each other, and this will be a problem until the underlying basic causes have been treated and cured. When such a compulsive behavior seems to be replaced by another, such as binge eating to cutting, in this case, this is called 'addiction transfer,' 'cross-addiction,' and 'symptom substitution.' Gastric surgery makes binge eating impossible since the person's anatomy is changed.

The literature does suggest risk for impulsive behaviors such as drinking may rise after bariatric surgery; this picture could be viewed as fitting with that. One book that has been around for a number of years is *Cutting: Understanding and Overcoming Self-Mutilation*, by Dr. Steven Levenkron. New York, NY: W. W. Norton, 1998, previously reviewed in *Eating Disorders Review.* Moreover, this person might well represent the mixture of issues for which DBT was designed.

In the Next Issue

Low Bone Mineral Density in Adolescents with Eating Disorders

By Erin Knopf, MD, and Philip S. Mehler, MD

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Adolescence is a critical time for bone development, and 40% to 60% of peak bone mass accrues during these years. Unfortunately, the peak age of onset for AN also occurs during adolescence. The time of onset, type and duration of the eating disorder, as well as the degree of nutritional deficit, will determine whether peak adult bone mass can be achieved. Drs. Knopf and Mehler offer development, diagnosis, and treatment options.

PLUS

- **ICD-11 vs. ICD-10: Which is More Effective for Diagnosing Feeding and Eating Disorders?**
- **Chinese Teens with Anorexia Nervosa: The Gap Between Expectations Of Treatment and Outcome**
- **Orthorexia and Dietary Patterns, Body Satisfaction, and Weight among Students**
- **Emotion Regulation and the Effect of Gender**
- **Risk of Eating Disorders in Distance Runners**
- **And much more...**

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