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# Eating Disorders Review

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## Using Body-Positive Imagery on Social Media

### *Men reacted particularly strongly to a drive for muscularity.*

Much has been made of the negative effects of social media sites, particularly those that promote the “thin ideal.” In a recent study, exposure to body-positive imagery on social media was beneficial to young adult men and women alike. Body-positive images, or those that depict “normal” individuals of varying weights, improved overall body satisfaction and reduced concerns about weight among young adult men and women (*Acta Psychologica*. 2024. 243:104126; published online before publication).

Drs. Fabio Fasoli, of the University of Surrey, UK, and Despoina Constantinou, of the University of Lisbon, Portugal, reported these results after their online survey used social media to sample a group of 207 participants. Most participants reported using social media for more than 2 hours a day, and no gender differences emerged in the use of Instagram. A control group was shown 10 images of landscapes and animals, without any human beings in the images.

#### Study design

Psychology students at the University of Surrey were recruited via social networks. The final sample consisted of 113 women and 94 men under 35 years of age, who were young and who mostly self-identified as being heterosexual, and white. The most popular social media network, used by nearly 97%, was Instagram. More than half of the respondents had been exposed to body-positive images similar to those they viewed during the study. More women than men had seen such images before on the social media sites. A control group was exposed to 10 images involving landscapes and animals without the presence of any human beings.

The researchers were particularly interested in exploring three areas: body satisfaction, drive for thinness, and drive for muscularity.

#### Takeaway Points

- **The type of images online users view can play a key role in their body image.**
- **Body-positive images that depict “normal” individuals of varying weights can improve overall body satisfaction and reduce weight concerns among young adults.**
- **Not all men are similarly affected by idealized male imagery. The amount of attention to certain body areas (for example, “abs”) that men give to idealized bodies influences their body image, while body satisfaction moderates the attention men give to other men’s muscular bodies.**

**Body satisfaction.** Gender played a role in body satisfaction, for women were less satisfied with their bodies than were men. Time made a difference, too: the researchers found that while body satisfaction decreased when participants were exposed to idealized body images, it increased when they were exposed to body-positive imagery. Importantly, the type of imagery participants were exposed to played

a key role in their body image. Exposure to idealized body imagery decreased positive mood and body satisfaction in both men and women. In contrast, body-positive imagery increased body satisfaction and decreased the drive for thinness in both men and women.

The authors found that exposure to body-positive imagery increased body satisfaction in women, but also had an effect upon men. Adding to their earlier studies work, the authors confirmed that body-positive imagery decreased concerns about weight. Earlier studies had shown that both men and women had more positive feelings about their weight when exposed to body-positive images rather than idealized body imagery.

In an unexpected result, participants in the control condition, those exposed to images portraying landscapes and animals but not humans, reported a decreased drive for thinness. This effect is difficult to explain. It is possible that seeing positive images (pleasant landscapes and animals but no humans) may have distracted participants from thinking about their weight, and this reduced their weight concerns. Another possibility was decreased negative mood after seeing images of nature.

### **Drive for thinness**

The internalization of body ideals and the influence of social media have an impact on both men's and women's drive for thinness (*Eat Behav.* 2012. 13:321) and being exposed to imagery promoting body diversity, and potentially criticizing unrealistic body ideals (Fasoli et al., 2023), can reduce not only women's but also men's concerns about their weight.

The authors reported a significant main effect of gender, indicating that women participants reported a stronger drive for thinness than did men. However, when participants were exposed to body-positive imagery, there were no differences in drive for thinness among men and women. Unexpectedly, men and women controls, who were only exposed to images of landscape and animals, but no humans, showed a decreased drive for thinness, too.

### **Drive for muscularity**

As the authors had expected, gender played a significant effect in drive for muscularity, and men reported having a higher drive for muscularity than women. Time also played an effect, indicating a significant decrease in drive for muscularity after exposure to positive images. No other significant main effects or interactions emerged.

A lean and muscular body is particularly important for men because it is currently considered an indicator of masculinity. Unfortunately, a drive for muscularity can also lead to the use of anabolic steroids and can enhance symptoms of disordered eating. Internalization of body ideals in young men is also associated with unhealthy levels of food and supplement intake, and with compulsive exercise.

Also, men reported a general decrease in the drive for muscularity after being exposed to any type of imagery, not just body-positive imagery. Being exposed to body-positive imagery alone did not play a positive role in how men felt about their muscularity. One possible explanation for this is that body positivity may be perceived as being more about plus-size bodies than any other body characteristics, making individuals critically select their weight more than other body characteristics. This would explain the effects of body-positive imagery on the drive for thinness but not the drive for muscularity. The drive for muscularity did not increase when men were exposed to idealized body imagery.

### **Men and body imagery**

According to the authors, the impact of body-positive imagery on men has rarely been studied and not all men are similarly affected by idealized male imagery. The amount of attention to certain body parts (for example, "abs") that men give to idealized bodies influences their body image, and body satisfaction moderates the attention men give to others' muscular bodies. The authors noted that it was possible that

they overlooked some effects on men's drive for muscularity because they did not take into account individual differences that explained their reactions toward idealized muscular bodies.

Some programs are being designed to address body imagery among men. *Manual*, a men's health and well-being platform based in London, has developed a campaign called "Men of Manual" to challenge stereotypes of the male body and to promote body acceptance among men ([help@manual.com](mailto:help@manual.com)). A correlational study found that participants who were frequently exposed to body-positive posts on Instagram reported higher levels of body satisfaction and positive mood; this was true for both men and women (*Body Image*. 2020. 35:181).

The study findings showed that, overall, women were more dissatisfied with their bodies, and reported a stronger negative mood and a higher drive for thinness than men. However, men reported a higher drive for muscularity.

These findings confirm earlier findings suggesting that women experience stronger body dissatisfaction than men but also suggest that the type of body concern they experience depends on their gender. Importantly, the type of imagery participants was exposed to played a key role in their body image. Exposure to idealized body imagery decreased the positive mood and body satisfaction in both men and women. In contrast, body-positive imagery increased body satisfaction and decreased the drive for thinness in both men and women.

George Pallis, CEO and co-founder of the *Manual* website for men, has written, "In a world where opening up about mental and physical wellbeing is arguably more crucial than ever before, it's vital that we all work together to de-stigmatise men's wellness and improve the health and happiness of men everywhere."

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## Men and Women with Type 2 Diabetes and Binge Eating

### *Living with two conditions that exacerbate each other*

The incidence of binge eating among those with type 2 diabetes (T2D) is high: a recent estimate is that up to 25% of people with T2D also binge eat. An unfortunate cycle of compensating for binge eating results when patients restrict their intake, which often only leads to more binge eating.

Danish researchers led by Dr. Pål Lindgreen at Steno Diabetes Center, Herlev, Denmark, and colleagues at Aarhus University, Copenhagen, and King's College, London, designed a study to follow patients with T2D and binge eating. The 20 final participants ranged in age from 31 to 77 years; 65% were female; 70% had a higher education; 40% worked full time or part-time; and 40% lived alone. The authors pointed out that very few researchers have explored this area.

The 20 final study subjects took part in individual semi-structured interviews (*Qualitative Health Res.* 2024. 0:1). The interviews, completed in 2022, were 1 to 2 hours each, usually by telephone, and in the participant's home, or at the Steno Diabetes Center I Copenhagen, a center that has treated approximately 11,000 persons from the Capital region of Denmark. All patients had either type 1 or type 2 diabetes and severe comorbidities.

### **Feeling like outcasts**

The participants reported feeling trapped in the vicious circle of T2D and binge eating. Living with T2D and binge eating, two interacting and mutually aggravating conditions, can be a lonely, shameful, and challenging situation, as the participants related. Many perceived that their body "had a will of its own," and they shared the view that their bodies needed to be medically fixed.

To cope with their feelings of guilt, they often continued secretly binge eating because they reported it was comforting. Several of the participants felt they had failed by binge eating in the first place, and also became aware of the risk of complications by seeing relatives with diabetes develop comorbidities. Unfortunately, some tried to stabilize their glycemic levels, and also tried to lose weight with appetite suppressants such as semaglutide, a glucagon-like peptide. Semaglutide, found in popular appetite suppressants such as Ozempic® and Wegovy®, lowers blood sugar levels by increasing the amount of insulin released and lessening the amount of glucagon released, delaying gastric emptying, and reducing appetite. Participants taking insulin told the researchers how it induced an increased craving for sugary foods.

A common profile also emerged. Many participants felt like “outcasts” after being continuously criticized by family members, friends, and even clinicians about their weight and binge eating. Patients also frequently had feelings of shame, worthlessness, and being “the odd one out.” Binge eating became a way to cope with parental neglect, physical violence, and even in some cases. sexual abuse.

The participants reported blaming themselves, and even joked about their eating patterns. Others enjoyed what they termed the “dopamine high.” Secrecy about their binge eating was a significant factor—they worried that disclosing they had the eating disorder would lead to humiliation and judgment from others, especially if they knew the patient had T2D as well.

### **What worked to break the cycle**

When a clinician asked directly about binge-eating behavior, the study participants weren’t shamed into silence. Instead, they interpreted this as a sign of sincere interest and concern, and felt more inclined to discuss their behavior. Secrecy about binge eating was a significant part of the participants’ lives, and most had not told anyone about their binge eating, due to worries that disclosing it would result in humiliation and judgment, especially if the others knew about the diabetes diagnosis as well.

Many patients felt relief when asked directly about binge eating and diabetes, and the participants were more inclined to disclose their binge eating behaviors. In contrast, some participants were concerned that clinicians would not understand their compulsion to binge eat, but would misinterpret their overweight and increased HbA1c as a sign of poor self-discipline. Unfortunately, some patients reported that their clinicians criticized them about their excess weight (*Diabetes Res Clin Pract.* 2023. 202:110827; *PLoS One.* 2012. 7: article e48448).

According to the authors, it can be beneficial if clinicians can talk with these patients about the high prevalence of coexisting T2D and BE. This might help normalize the issue, limiting feelings of shame. Group-based interventions aimed at normalizing the experiences of participants have been helpful for reducing feelings of shame and loneliness from binge eating and T2D (*Justice Quarterly.* 1994. 11:527), and can contribute to much-needed emotional support.

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## **From Across the Desk**

Our Editorial Advisory Board works quietly behind the scenes to keep us up to date and to offer criticism and new ideas on eating disorders care. It might be a suggestion for a must-read book or the two sides in the current argument over working with a longtime patient who now refuses any further care. Dr. Pauline Powers, who has been a member of our Editorial Board since *EDR*’s earliest days, is now retiring. Pauline has been an invaluable asset to the newsletter, and has contributed many helpful and practical articles over the years. She also written articles for numerous journals on nearly every aspect of eating disorders, including inpatient treatment, alcohol and substance use, and dietary restriction. Pauline is co-author of the book, *The Exercise Balance: What’s Too Much, What’s Too Little, and What’s Just Right for*

*You!* We wish her the best, and will miss her sharp wit and extensive knowledge.

Social media flood our computers, and a recent study has evaluated the effects of placing positive images online versus the usual “thin to win” images that have been so harmful to eating disorders patients (see “Using Body-Positive Imagery on Social Media” elsewhere in this issue). The authors saw definite positive reactions to images of positive imagery showing normal-weight persons. In another article, Swedish researchers were able to divide pregnant and new mothers into five distinctive groups, with suggestions about effective treatment for each group (see “Severe Eating Disorders During Pregnancy and Early Motherhood”).

—MKS

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## **H.R. 6961: Adding Additional Care for Eating Disorders Patients**

### ***A bill that targets nutrition services.***

A bill was introduced in Congress on January 11 would amend title XVIII of the Social Security Act to provide medical nutrition therapy for individuals with eating disorders. Currently Medicare provides some, but not comprehensive care for the estimated 28,800,000 people in the US with eating disorders. The services would be provided under the Medicare program. US Representative Judy Chu, of California, introduced the bill.

The Nutrition Counseling Aiding Recovery for Eating Disorders Act of 2024, or the “Nutrition CARE Act of 2024,” would enable eating disorders patients to receive care from a registered dietitian or nutrition professional after referral from a physician, a psychologist, or other mental health care professional. If approved, the Nutrition CARE Act of 2024 would include 13 hours of care, including a 1-hour first assessment and 12 hours of reassessment and intervention over a 1-year period.

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## **Severe Eating Disorders During Pregnancy and Early Motherhood**

### ***A Swedish study identifies distinct characteristics in 5 groups.***

Pregnancy and early motherhood are times of increased risk for women with eating disorders. For example, women who experience persistent eating disorder symptoms during pregnancy and the early postpartum period tend to have greater depression and anxiety. Postpartum depression also seems to occur more often in women who currently have or have had an eating disorder in the past (*Psychol Med.* 2007. 37:1109).

A better understanding of the trajectories or paths women with eating disorders experience during pregnancy and the early postpartum period may help combat the risks of relapse and worsening symptoms. In the first study of the psychological processes that women with eating disorders experience during pre-pregnancy, pregnancy, and early motherhood, Dr. Bente Sommerfeldt of the Institute for Eating Disorders, University of Oslo, Sweden, and fellow researchers traced the common traits, factors, or processes that women link to worsening symptoms and relapse, as well as improvement and recovery during pregnancy and early motherhood (*Front Psychiatry.* 2024.10.3389/fsyt.2023.1323779).

Dr. Sommerfeldt and colleagues designed a longitudinal in-depth study of a non-clinical sample of 24 women with histories of severe eating disorders during pregnancy and the 6 months after birth. Severity was defined by persistent and long-lasting symptoms, and a treatment history lasting more than 7 years. The women were interviewed twice: once during pregnancy, and then 4 to 6 months after delivery.

Five types of mothers and their trajectories were identified: (1) the "mastering mother," whose eating disorder was absent during pregnancy and the postpartum period; (2) the "inadequate mother," whose eating disorder worsened before and during pregnancy, and continued during early motherhood; (3) the "overwhelmed mother," whose eating disorder worsened during pregnancy and early motherhood; (4) the "depressed mother," whose eating disorder stopped during pregnancy but worsened after birth; and (5) the "succeeding mother," whose eating disorder worsened during pregnancy but improved in early motherhood.

### **Characteristics of the mastering mother**

Three women were categorized as mastering pregnancy and early motherhood. All had low body mass indexes before pregnancy, and a strong awareness of their food intake and the importance of exercise. All had anorexia nervosa (AN), were goal oriented, and wanted to become pregnant and in fact had planned their pregnancies. They had another quality in common: they had good support at home, and viewed their pregnancy as a family project. All delivered close to their proposed delivery dates, giving them a sense of safety and control. After birth, they mastered breastfeeding, and lost extra weight right away. A common expression was that pregnancy and being a mother meant they no longer needed their eating disorder.

### **The succeeding mother: improvement after birth**

Four women fit into this category. Their eating disorders worsened during pregnancy but subsided early in the postpartum period. Birth and early motherhood were important turning points for these mothers. Before becoming pregnant, they had a history of AN and low self-esteem, and struggled with perfectionism as well. They were rigid and perfectionist before pregnancy, and feared not succeeding in being thin and healthy after their child was born. Although they wanted to control all aspects of their pregnancy, nothing went as planned. It was helpful if they had a small stomach and gained less weight than they feared.

The authors noted that these mothers felt good when they lost weight and their body weight returned to pre-pregnancy levels. Breastfeeding led to healthier eating patterns, and the mothers expressed that they no longer needed their eating disorder to feel special.

### **The inadequate mother: a feeling of not being good enough**

Seven of the mothers reported that their eating disorder symptoms returned or worsened before they became pregnant, and continued to worsen during pregnancy and early motherhood. All had severe AN, and several had histories of anxiety during childhood. They also reported becoming pregnant while they had a general feeling of insecurity. Six had become pregnant through in-vitro fertilization (IVF), and they viewed their inability to become pregnant without IVF as a loss of control. All felt their pregnancy was overwhelming and as something that brought them guilt and self-contempt. They were also obsessed with what others thought of them and feared doing something wrong that could harm the baby. These mothers felt detached from their bodies and their babies, and this feeling of inadequacy continued into feeling unable to cope as a mother. They used excessive exercise to take attention away from their baby and hoped that by focusing on their body shape, appearance, and weight, they might feel better about themselves.

These women also had difficulty breastfeeding. Breastfeeding became a way to lose weight or to eat "normal" amounts of food. Ironically, the inadequate mothers' strict routines and rules gave them a feeling of safety.

## **The depressed mother: eating disorders that worsened after birth**

Ten of the women were second or third-time mothers, and all were diagnosed with postpartum depression. However, during pregnancy, the depressed mothers put their symptoms on hold by learning how to deal with their bodies, weight, and changes in shape after their babies were born. All had histories of bulimia nervosa, and also reported growing up with mothers who binged and purged and worried about weight gain throughout their pregnancies.

Depressed mothers tended to have rapid body changes as their pregnancies progressed and felt detached from their bodies. Delivery became a trigger for symptoms because nothing went as they had planned, and all the women had complications.

Several symptoms worsened during the postpartum period. All were diagnosed with postpartum depression, and they were unable to accomplish their original plans for healthy eating and exercise —this made them feel like failures. Some protective factors included the fact that they had been able to “get their body back” between prior pregnancies. Planning ways to achieve this protected them from disordered eating during pregnancy.

## **The overwhelmed mother: chaos, shame, and guilt during pregnancy and early motherhood**

The typical overwhelmed mother felt chaos during pregnancy and early motherhood, as well as a self-affirmation of herself as a “bad person.” The women in this category had a history of intense self-hatred that they linked to traumas in early childhood. To them, their eating disorder was a way to deal with chaos earlier in life, and all were bulimic. They also typically experienced pregnancy as a threat to the degree of control they felt they had over their lives. Using their eating disorder gave them a way to disconnect from being pregnant. This led to purging and overeating. Early in motherhood, they expressed a fear of harming their baby. Three mothers delivered later than expected, leading to a larger body, and to a feeling of loss of control during the birth.

Hatred of their bodies triggered yet more eating disorder pathology. This group expressed feeling like aliens, and were angry with the baby for “destroying” their body. This disgust with themselves made it difficult to form a healthy relationship with their babies. Breastfeeding also seemed overwhelming, and within a short time they stopped breastfeeding. After a few months, the mothers began feeding their babies with a bottle, and their partners took responsibility for feedings. Good support from their partners became a protective factor in early motherhood.

The authors pointed out that pregnancy and the postpartum period are especially vulnerable times for women’s mental wellbeing. In the case of the depressed mothers, women could put their eating disorder on hold during the pregnancy, but it grew worse during birth and into early motherhood.

According to the authors, women in the inadequate mother category need support to feel well, to be reassured that their babies are doing well, and to cope with emotional experiences during this time. Those in the depressed mother category may need routines they can stick to. Additional help that emphasizes building self-compassion and reduces shame would be helpful for mothers in the overwhelmed category.

Finally, Dr. Sommerfeldt noted that their trajectories are not mutually exclusive, and that the women had several elements in common during pregnancy and early motherhood, including low self-esteem, feeling shame, and finding it difficult to regulate emotions.

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## **QUESTIONS AND ANSWERS**

## ***Autism and Eating Disorders***

**Q.** I suspect that my autistic patient may have an eating disorder, based on her irregular eating behaviors. Is this unusual? (*G.B., Houston, TX*)

**A.** The combination of autism/Asperger's syndrome (ASD) and eating disorders may be more common than we think. In a recent study, for example, almost a fourth of the participants (23.55%) with ASD scored above the cutoff of the *Eating Attitudes Test-26* (EAT-26), which pointed to the need for further assessment by a specialized clinician (*Eat Weight Disord.* 2024. 29:10).

Research over the past decade has made the connection between autism and eating disorders much clearer. Autism-type disorders are neurodevelopmental conditions characterized by difficulties in social interactions and communication, restrictive and repetitive patterns and behaviors, and altered social sensitivity. Eating disorders involve abnormal eating habits and attitudes toward food and body image. The two conditions share psychopathological features such as cognitive rigidity, atypical social cognition, and difficulty processing emotion (*J Autis Dev Disord.*2020. 50:4280).

According to a recent study headed by Dr. Veronica Nistico at the University of Milan, Italy, adults with ASD without intellectual disability, compared with neurotypical healthy controls, had a higher prevalence of autistic-type eating disturbances but also of eating disorder symptoms and concerns. The authors devised the study to investigate the prevalence of eating disorders and the potential relationship with autistic traits and sensory sensitivity in a group of patients referred for the first time to a mental health outpatient clinic, before a diagnosis had been made.

The study participants were all teens and young adults referred to a specialized consultative clinic for persons between 18 and 24 years of age. At the end of the recruitment period, 259 patients who were new patients or undergoing follow-up at the clinic were added to the study group.

Because of the COVID-19 pandemic, all data were collected online through three autism and Asperger's syndrome questionnaires, including the *Swedish Assessment for Autism Spectrum Disorders* (SWEAA) and the EAT-26. The questionnaires pinpointed perception, and sensitivity or sensory input related to food. Sensitivity to certain flavors, problems chewing, as well as spilling food and difficulties trying new foods, for example, were sought.

The mean age was 20 years, and 60% identified themselves as female, 33% as male, 5% as binary, and 2% preferred not to disclose their gender. The average body mass index (BMI, kg/m<sup>2</sup>) was 22.62. Nearly half (48%) were underweight (BMI <18.5); 15% were overweight (BMI: 18.5-24.9); and 8% were obese (BM >30.0). Altered sensory sensitivity in vision and touch domains was associated with a higher occurrence of autistic-like eating behaviors (SWEAA) and general eating disorder symptomatology (EAT-26).

The authors pointed out that heightened sensitivity of vision and hyposensitivity of touch appeared to be associated with a higher percentage of autistic-type eating behaviors.

Their results also added to the possibility of an association between sensory sensitivity, autistic traits, and eating disorders. This suggests that a substrate for development of abnormal eating behaviors could be shown by the relationship of some degree of distortion of sensory information and the presence of potentially autistic traits.

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# Patients with Restrictive Eating Disorders May Benefit from a Plant-Based Diet

## *A positive path to recovery?*

As plant-based and vegan diets have become increasingly popular, clinicians have become concerned about the role of these diets in restrictive eating disorders such as bulimia and anorexia nervosa. Would the restriction of meat and meat byproducts interfere with recovery?

A plant-based diet is not synonymous with a vegan diet. This dietary pattern emphasizes plant foods but can include some animal foods (just like the Western diet). Vegetarianism or a vegan diet restricts eating meat, including red meat, poultry, seafood, insects, and the flesh of any other animal. It may also include abstaining from byproducts of animal slaughter, such as leather. A lacto-ovo-vegetarian diet includes both eggs and dairy products, an ovo-vegetarian diet includes eggs but not dairy products, and a lacto-vegetarian diet includes dairy products but not eggs.

### **Vegan and plant-based diets**

The risks and benefits of vegetarianism were recently explored in a semi-structured interview using open-ended questions and follow-up of 14 female participants aged 18 to 31 years of age (mean age: 23 years) (*Appetite*. 2024. 194:107137). In the study, participants were asked how long they had been eating a plant-based diet and what were the motivations to adopt the diet. An important question was how the participants felt their diet could help in their recovery. The interviews lasted from 20 to 60 minutes, and were conducted using videoconferencing software.

### **Dietary control and a gateway to recovery**

Dr. Rachael Hunter and her colleagues from Swansea and Bath universities in Great Britain found that patients believed a vegan diet provided a “gateway” to a new and healthier relationship with food. The women also reported that a vegan diet introduced them to a more gradual and appealing recovery process. All the participants said that adopting a plant-based lifestyle had a positive effect on the way they viewed food. With their new lifestyle, food was viewed as positive and as contributing to health and well-being. Some participants described this process as leading them to love their bodies and to being in control.

A plant-based diet did have some risks: an important one is the attraction of restricting eating. However, veganism did lead to a new relationship with food, accompanied by new feelings about empowerment, autonomy, and recovery, according to the authors. The notion of being in control is particularly viewed as important to recovery. Adopting a plant-based lifestyle can influence identity, cognition, emotion, and healthier behaviors, say the authors.

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## **In the Next Issue**

### **Highlights of iaedp Symposium 2024**

Plus:

- “Food Rules” and Binge Eating
- Exposure Therapy in Anorexia Nervosa
- How Chronic Health Conditions Affect Eating Disorders in Young Patients
- Sleep Disorders in Anorexia Nervosa Patients
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