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From Across the Desk

Iaedp's 19th Annual Symposium, "Instilling Passion Into Treatment and Recovery," scheduled for February 7-10, 2019 in Palm Desert, CA, has announced its keynote speakers, all of whom are outstanding researchers in eating disorders. One name jumped out at us, Joel Yager, MD.

Joel and publisher Merv Oakner founded *Eating Disorders Review* nearly 30 years ago, to bring current clinical information to professionals treating eating disorders. Dr. Yager is currently Professor, Department of Psychiatry at the School of Medicine, University of Colorado. He also holds Emeritus Professor positions at the University of New Mexico School of Medicine and the Department of Biobehavioral Sciences at the David Geffen School of Medicine at UCLA. He has also received numerous awards, including the Distinguished Service Award from the Academy for Eating Disorders. At the Iaedp Symposium, Joel will address a particularly challenging topic: Managing the patient with severe and enduring anorexia nervosa, and the difficult question, when is enough enough?

Also in this issue, two articles examine preconceived notions, for example, that female college athletes are knowledgeable about eating disorders. A recent study (see **Collegiate Female Athletes and Knowledge About Eating Disorders**) showed a general lack of knowledge and information about eating disorders, and poor scores on recognizing signs and symptoms among their peers. A second study of internet use among women with eating disorders revealed that few clinicians asked patients about their online time and use (see **Eating Disorders Patients and the Internet**). The same lack of knowledge about internet use was found among parents, who weren't aware that their child visited blogs and forums that only emphasized the "thin ideal."

— MKS

Update: Cyberbullying Increases Eating Disorder Risk

Studies of nonclinical samples have shown an association between cyberbullying and negative emotions, low self-esteem, unhealthy eating behaviors, and body dissatisfaction. Psychologist J.H. Marco and a team of researchers from the University of Valencia, Spain, took this a step further, to test the association among a sample of patients with diagnoses of eating disorders, and a second group at high risk of developing an eating disorder (*Cyberpsychol Behav Soc Netw.* 2018; 21:611). In the first study, 80 participants with eating disorders (41.2% with bulimia nervosa criteria; 33.8% with anorexia nervosa-restrictive type criteria, and 25% with eating disorders not otherwise specified criteria). In the second study, the sample included 156 male and female elite athletes. In both studies, cyberbullying correlated with depression and eating disorder psychopathology. These findings underscore the impact of cyberbullying and possible links to development of disordered eating.

Collegiate Female Athletes' Knowledge About Eating Disorders

Knowing the signs and symptoms of an eating disorder brought the lowest scores.

Athletes are a group at high risk for disordered eating, and one would hope they would be knowledgeable about eating disorders. In fact, athletic organizations such as the National Association of Intercollegiate Athletics (NCAA) have engaged in raising awareness about eating disorders (these efforts may focus on larger athletic programs). When a team of American and Swedish researchers compared general knowledge about eating disorders and confidence in that knowledge among a group of female athletes, they were surprised to learn that despite the women's confidence in their knowledge of eating disorders, their actual understanding fell far short.

Dr. Megan E. Rosa-Caldwell and colleagues recruited 51 women from an NCAA Intercollegiate Athletics university and asked them to complete a 30-question exam assessing 5 different categories related to eating disorders (*Peer J*. 2018; doi 10.7717/peer). 5868).

Most scores were unsatisfactory

Fifty-one female college athletes (mean age: 19.7 years) completed the study. The average score was 69.1%. Only 23% achieved an adequate score of >80% correct, despite the fact that most thought their level of knowledge was good. Most could identify risk factors but scored the worst on identifying signs and symptoms. As the authors noted, most of the athletes lacked knowledge about eating disorders.

Some possible explanations

While there is a substantial amount of research on eating disorders risk and prevalence of this among athletes at large universities, little research has been done at smaller athletic programs, which often lack the resources that are present at the larger universities, such as access to team physicians, team-specific athletic trainers, or dietitians.

The authors note that overconfidence may also play a role, citing the Dunning Kruger effect, first outlined in the 1990s (*J Personality Soc Psychol*. 1999; 77:1121). An individual may have high confidence in his or her knowledge of a subject but in fact does not have the ability to see the limitations of their knowledge. Coaches or teammates who cannot recognize problematic eating behavior but who are also confident in their ability to do so can have serious ramifications.

This study points to potential challenges in small collegiate athletic programs and may also identify an overlooked need for increased efforts to improve awareness efforts. An individual may lack the knowledge to identify signs and symptoms of disordered eating among his or her peers, yet have high confidence in the ability to do so. Improving knowledge about eating disorders in these athletes could thus have a large impact.

Large Study Analyzes Compulsive Exercise and Eating Disorders

One finding: Nearly half of eating disorders patients were compulsive exercisers.

In the largest study to date of compulsive exercise in adults with eating disorders, more than 9,000 female and male patients were examined for tell-tale symptoms (*J Eat Disord*. 2018; 6:11). Dr. Elin

Monell and colleagues at the Karolinska Institute and the Stockholm Health Care Services, both in Stockholm, Sweden, gathered their data from the Stockholm database, a clinical database for specialized eating disorders treatment centers throughout Sweden. The database includes all treatment modalities, including medical, psychosocial and nutritional data and records the length and intensity of treatment.

In Sweden, about 60% of treatment is given as outpatient care; approximately 25% of patients receive day treatment and residential care. Records of patients registered from March 2005 to October 2017, were identified, and 9,117 patients with histories of eating disorders were included in the final study. All participants were studied with semi-structured interviews and questionnaires, including the *Structured Eating Disorder Interview*, the *Eating Disorder Examination questionnaire* (EDE-Q), *The Structural Analysis of Social Behavior,* and the *Structural Clinical Interview for DSM-IV-Axis 1 Disorders* (SCID-1).

Compulsive exercise at admission

Of the total sample of 9,117 patients, 96.3% were female, and the patients' ages ranged between 18 and 81 years. Compulsive exercise was noted in 48.2% of female patients at admission and in 45.5% of male patients, where it was most often linked to eating disorders not otherwise specified or to bulimia nervosa. Both males and females who compulsively exercised had more general eating disorders pathology and restraint than did those who did not compulsively exercise. Females with compulsive exercise diagnoses were slightly younger, had a fairly shorter duration of eating disorders, and a slightly lower body mass index than did non-compulsive exercisers.

Compulsive exercise predicted a slightly lower remission rate in men, and women who had never engaged in compulsive exercise or had ceased using it remitted twice as quickly as those who continued to use compulsive exercise during treatment.

The authors noted that compulsive exercise was a transdiagnostic symptom in their study. Their results are similar to those of a prior study of adolescents with eating disorders. This growing body of literature suggests that while exercise has received relatively little attention, it deserves greater focus, both in research and in clinical practice.

When People with Anorexia Injure Themselves

Difficulty regulating emotions is a common component of an eating disorder, and self-injury may act as a coping mechanism for dealing with overwhelming emotions. This was one finding from a recent study of patients with anorexia nervosa or eating disorders not otherwise specified (*J Eat Disord*. 2018; 6:26).

Dr. Linda Smithius and colleagues at Parnassus Psychiatric Institute, Rotterdam, used a cross-sectional design and a self-report questionnaire to measure the prevalence and characteristics of self-harm behavior among 136 patients with eating disorders. The authors found that 41% of their study subjects had injured themselves during the previous 30 days. Those who injured themselves had been in treatment longer and were more likely to have a secondary psychiatric diagnosis, suggesting more severe illness than those who did not injure themselves. These patients also stated they a reduction in negative feelings and increased relief after hurting themselves. Afterwards they also could articulate the emotions that led them to injure themselves. The Dutch researchers were also able to isolate the intensity of two emotions in particular, "feeling angry at myself" and "feeling angry at others."

The authors noted that emotion regulation appears to differ between subtypes of anorexia nervosa, so that patients with the purging subtype have reported greater difficulty regulating their emotions than do patients with restrictive-type anorexia nervosa (*J Eat Disord*. 2016; 4:17). The findings replicate work using intensive self-monitoring strategies such as ecological momentary assessment to measure the impact of self-injury on emotion regulation

Eating Disorders Patients and the Internet

Although the Internet has many benefits, negative effects emerged from concentration on body image, weight, and comparisons with the 'thin ideal.'

One area often overlooked in treatment is the time eating disorders patients spend on the Internet, according to a group of Israeli researchers (*Front Psychol*. 2018; 9:2128. d/fpsyg.2018.02128. doi 10.3389). And, the social interactions online can have positive and negative effects; patients can gain a sense of connectedness but also face comparing themselves unfavorably to the "thin ideal."

Dr. Rachel Bachner-Melman and colleagues at Soroka University Medical Center, Beersheba, Israel, compared the scope, Internet use patterns, and degree of online need satisfaction of girls and women with and without a lifetime eating disorder diagnosis. The study group included 122 females 12 to 30 years of age; 53 had an eating disorder and were recruited from a hospital-based treatment program, and 69 age-matched controls with no current or prior eating disorder who were recruited from social media sites. All participants completed questionnaires that assessed disordered eating, body image, positive and negative affect, general distress and life satisfaction, and also completed an online survey about their Internet use, how often they watched and posted pictures and videos, online friendships and social comparisons, and their mood after leaving the Internet.

Similar time spent online, but distinct differences

Both study groups spent a mean of 6 1/2 hours online each day. However, those with eating disorders spent more of their online time visiting forums and reading blogs than did control group members. In fact, more than half of their time online was devoted to eating, weight, and body image, significantly more than control participants (56.7% versus 29.1%, respectively).

The group with eating disorders watched significantly more videos online than did controls. However, both groups were equally likely to view pictures posted by others, but those with lifetime diagnoses of eating disorders were less likely to post pictures of themselves and others online than were controls.

After being active online, as, for example, commenting, posting pictures and offering advice to others online, those with eating disorders reported feeling sadder than did control group members. There was, however, no significant difference between the groups in their experience of relief, fear of others' reactions to their comments, and satisfaction from having contributed something positive to the sites.

The authors noted that the study results showed several negative aspects of Internet use by women with eating disorders, and areas that might be targeted in treatment. Women with eating disorders tended to use the Internet to focus on eating, weight, and body image. They also tended to have a higher ratio of online to offline friends, to compare their appearance to others' online photos, and to leave the Internet with negative feelings. This pattern was also associated with the severity of symptoms, body dissatisfaction, negatively associated with satisfaction with life.

Suggestions

The researchers had several suggestions for clinicians treating patients who frequently use the Internet to visit forums and blogs. Use of the Internet should be a topic in therapy with people who have an eating disorder. Parents can also be informed about Internet use and take a greater interest in the eating- and body image-related Internet options open to young people and to be alert for possible signs of negative effects.

While encouraging the sense of connectedness that patients feel with being online, clinicians can also

help patient develop "real life" social skills, such as social problem-solving and better recognition of facial expressions. Patients can also be encouraged to create connections with healthy people around them, and to speak about their disorders, helping reduce the need to do so exclusively or mainly online.

Nature-based Therapy for Binge Eating Disorder

A pilot study showed significant differences between nature-based therapy and standard group therapy.

(Note: see also September-October issue's lead article, **Needed: More Vitamin 'N'.)**

In Denmark, binge eating disorder, or BED, is not yet recognized as an autonomous eating disorder, although it will presumably become "official" there with the coming publication of *ICD-11*. Currently, support group meetings are the only publicly available form of support for patients with BED. Based on prevalence estimates from a variety of studies, 1.3% to 1.8% of the population is affected by BED (*Biol Psychiatry*. 2013; 73:904). Thus, it's estimated that from 40,000 to 50,000 Danes currently have BED, and most are treated by private practitioners or at support group meetings.

Dr. Sus Sola Corazon and colleagues recently reported their findings from a small pilot study comparing nature-based therapy vs group support therapy for patients with BED (*Int J Environ Res Public Health*. 2018; 15:2486). In this study, the nature-based psychotherapeutic approach was based on Acceptance and Commitment Therapy. The authors noted that since nature-based therapy is characterized by experiences and activities in Nature as therapeutic tools, its physical approach to creating mental change seemed potentially beneficial. The mirroring process also comes into play because being in a natural environment is perceived as comforting by clients and offers metaphor they can use as a mirror and a way to frame their anxieties.

A series of interviews, questionnaires, and sessions in a therapy garden setting were used and then analyzed for the 19 women and 1 man who participated in the overall study (10 in each study group; mean age: 47 years in the nature-based therapy group and 41 in the group support therapy section). Recordings of the interviews were reviewed several times and sections of interest were marked, and then analyzed.

Results

Eight participants in the nature-based intervention and 7 from the group intervention completed the study. *EDE* interviews showed that all the participants still fulfilled the criteria for BED at the end of the interventions but diminishments in binge eating were substantial for the NBT group (21.5 episodes per 28 days to 3.5 per 28 days). Binge eating frequency changed little in the group treatment condition (13.7 to 10.9). Both interventions improved psychological well-being and increased self-esteem, although not all results were significant.

How participants experienced natural surroundings and nature-based activities

Although the therapeutic mechanisms at work in outdoor psychotherapy are still far from understood, most participants in the nature-based therapy program experienced nature therapy to be safe and protective. They used words such as "calming," "supportive," "protective," a feeling of refuge," and "providing mental space" to describe their experience. Being in a natural environment apparently helped them feel more grounded and present. Also, integrating the natural environment into the exercises was reported to be motivating; one participant said, "It's a step beyond being stuck in your own head all the time." Others selected natural objects such as a tall tree or a pine cone, which helped them work to be more present in the moment.

The authors note that one of the potential benefits of nature-based therapy is that it helps "anchor" therapeutic content through physical experiences and exercises, making this more accessible and applicable for participants. Because the study had several limitations, such as size, an overrepresentation of women, and the difficulty of determining the effects of nature-based therapy vs psychotherapy, Dr. Corazon and colleagues suggest that future studies use a different design, using randomization and a control group receiving the same psychotherapeutic intervention without nature-based activities and experiences as therapeutic tools.

A New Medical Network System Improves Eating Disorders Treatment in Japan

A medical community network improved many areas, including making initial appointments.

In Japan, health care coverage provides free access to needed treatment. However, there are only a limited number of physicians in Japan who can treat eating disorders. While the health system structure differs from many others, the problem of facilitating access to specialized eating disorders treatment is a widespread one. A new study followed the impact of a medical network system that schedules the first treatment visit for eating disorders only by referral from another medical institution, not from patients themselves (*BioPsychosocial Medicine*. 2017; 11:27).

Researchers at the University of Tokyo report on a new medical network system designed to overcome the inefficiency of the free-access program, including problems with doctor-shopping and a mismatch between the need for and the supply of health care resources. The researchers give the example of patients with low-risk operations who nonetheless seek care in tertiary hospitals, creating long waiting times.

In April 2005, the authors began a new medical community network consultation system designed to enhance partnerships with other medical institutions and to better match patients to their tertiary care hospital, which has inpatient and outpatient eating disorders clinics. In this system, referrals to specialized care are made only by the clinic. They examined measures such as wait time and no-show rate. The data from 342 outpatients (328 females and 14 males) who visited the authors' eating disorders clinic for the first time between January 2009 sand July 2012. A final group of 128 patients were assigned to the medical network system, and 214 were assigned to the self-referral group.

No-shows and longer waiting times with self-referrals

The no-show rate for the medical referral group was significantly lower than that of the self-referral group (0.8% vs. 17.8%, respectively). In addition, waiting periods from the time of the reservation to the first visit were significantly shorter among the medical network group than the self-referral group (8.4 days vs. 35.5 days, respectively). And, those who were in the medical system network also had a much higher rate of successive visits after their first visit to the clinic. This approach seems to have potential advantages for the system in terms of efficiency. It may also be that such a system of clinic referral may help to address the ambivalence that is often prominent when people with eating disorders contemplate seeking treatment.

Orthorexia Nervosa and Eating Disorders

A study in Spain seeks to make a connection between the two.

Orthorexia nervosa, first described in 1997, is an obsession with consuming only "healthy foods." The relationship of orthorexia nervosa to other eating disorders such as anorexia nervosa remains somewhat unclear. Eating disorders and orthorexia nervosa may share a lack of pleasure with eating food and a need for controlling food intake for improving self-esteem. More information is needed to understand if these are separate conditions that can co-occur, or if they are largely indistinguishable, or some combination thereof.

A team of Spanish researchers led by Dr. Maria-Laura Parra-Fernandez from the University of Castilla-La Mancha, Cuidad-Real, Spain, studied 454 college students (295 women, 159 men aged 18 to 51) at their university to assess the incidence of orthorexia nervosa and possible psychological and behavioral aspects of eating disorders *(BMC Psychiatry*, 2018;18:364). The researchers used a series of questionnaires to analyze the students, including: a Spanish version of the *Eating Disorders Inventory-2* and the *ORTO-11-ES* questionnaire. They also collected demographic material, including body mass index, for all participants.

What the researchers found

The group found that 76 (17%) of the participants recorded "at-risk" scores on the *ORTO-11*, and females were more at risk than males (19.3% vs 11.9%, respectively). Individuals with at-risk scores for orthorexia nervosa also had higher scores on many *EDI-2* variables linked to eating disorders, including drive for thinness, bulimia, body dissatisfaction, perfectionism, and impulsivity.

The authors carefully note that their results do not clarify the nature of the relationship between these entities. The cross-sectional design of the study made it impossible to determine the course of the development of eating disorders and orthorexia nervosa. The authors correctly point out that more information about orthorexia nervosa and its relationship to traditional eating disorders will facilitate efforts at identification and treatment.

A Better Way to Assess Malnutrition than Using Presentation Weight

A new approach for anorexia patients who are not underweight.

In a recent editorial in the *Journal of Adolescent Health* (2018;63:669), Andrea K. Garber, PhD, RD, from the University of California, and Benioff Children's Hospital, San Francisco, notes that "skinniness" is not sufficient to assess malnutrition in patients with restrictive eating disorders.

The classic face of patients with anorexia nervosa is changing, with a growing number of atypical patients, she says. "Atypical anorexia nervosa" features patients who have lost significant amounts of weight and who meet the criteria for anorexia nervosa (AN) but who are not currently underweight. The few studies that have described this group note that the patients were largely overweight or obese before becoming ill. Other characteristics of these atypical anorexics include more males and youth from lower socioeconomic groups. Even though they are not technically underweight, they have marked malnutrition.

Dr. Garber refers to a recent study of 171 adolescents aged 12 to 19 who were first admitted with malnutrition secondary to AN or Atypical anorexia nervosa (*J Adoles Health*. 2018; 63:717). Those with Atypical AN met all criteria for AN except for being at weights that were not as low. The study focused not merely on admission weight, but on recent and total amount of weight lost.

Total weight loss plus admission weight predicted risk for the refeeding syndrome (low serum phosphate levels) and longer hospital stays. Greater recent weight loss predicted worse eating disorder psychopathology in the study group. Alone, lower admission weight was not predictive of any outcome.

These findings are important for several reasons. First, they argue strongly for diminishing emphasis on admission weight. Understanding both the time course and total amount of weight loss appear critical. Moreover, these results underscore the seriousness of Atypical AN. It is distinguished from full AN by weight, yet this study strongly argues that this is a distinction without a difference. These results should counter the tendency to view Atypical AN as being "less severe" in any meaningful way.

Questions and Answers:

Binge Eating and Premenstrual Dysphoria

Q. One of my middle-aged patients has a fairly long history of binge eating that I think may be related to her premenstrual dysphoric disorder. Now she is considering surgery for her premenstrual dysphoria. Is this common? (*J. Anderson, Clearwater, FL*)

A. Premenstrual dysphoric disorder is a depressive disorder described in the *DSM-5*, and the most severe form of premenstrual distress. Some 3% to 5% of premenstrual women are affected by it. A recent case study from Norway may provide some helpful information (*J Eat Disord*. 2018; 6:35). Drs. Camila Dahlgren and Eric Qvigstadt describe the case of a 39-year-old woman who was referred from a secondary heath center specializing in obstetrics and gynecology. She was seeking a second opinion about having bilateral oophorectomy to treat her symptoms; she and her husband had no children and did not wish to have any. The patient had struggled with symptoms for more than a decade, and reported affective lability, irritability, anger, and interregnal conflicts, as well as depressed mood and anxiety. These symptoms had not responded adequately to oral contraceptives, individual counseling, couple's counseling, or antidepressants More conservative measures, including a 3-month trial of GnRH agonist injections (ProcrenÂ®) had been unsuccessful, which led the couple to consider the surgically option. She also had a trial of estrogen replacement therapy.

The patient also reported having struggled with eating and weight problems since the onset of the premenopausal dysphoric disorder, although she had no history of a diagnosis of an eating disorder. Her cravings appeared as a marked increase in appetite and specific food cravings at about the time of ovulation, and increased exponentially until the onset of her menstrual period.

Her uncontrollable food intake nearly always took place when she was home alone, where she consumed large amounts of highly palatable foods; even a handful of nuts or a piece of chocolate could trigger overeating and the patient tried to avoid having such "trigger foods" at home. Her overeating was followed with a strong sense of shame and disgust and a need to restrict food intake.

After thorough consultation, the patient and her husband opted for bilateral salpingo-oophorectomy, or removal of both ovaries and both fallopian tubes, to induce surgical menopause.

After surgery, follow-up at 4, 8, and 12 weeks, as well as at 6-months post-surgery, the patient reported that all previous premenstrual dysphoric symptoms were gone, and she now had no adverse effects. In fact, she described the period after surgery as "a period of inner peace" she had not felt for years.

The authors believe this is the first study to document recovery from a long-standing eating disorder, according to the *DSM-5*, after bilateral salpo-oophorectomy. They also recommend that surgery be considered only as a last resort, when hormonal treatment fails.

This case highlights that premenopausal dysphoria disorder and disordered eating can co-occur. Some treatment approaches for the disorder may be of benefit for eating disorder symptoms, either through direct effects or via improving mood. The use of surgery should undoubtedly be reserved for rare cases.

— SC

In the Next Issue

2019: What's New in Eating Disorders

Remarkable advances and new treatment approaches and advances are promising steps forward for all patients with eating disorders.

Plus

- **Inpatient Care for ARFID Patients**
  and
- **Narcissism and Self-Esteem in Patient with Bulimia Nervosa and Anorexia Nervosa**
- **Special Assessment and Treatment Track for Men with EDs**
  and
- **Dealing with Pro-Anorexia Websites**

And much more...

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