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More Highlights of the AED Meeting

Intensive Outpatient Treatment Program Offers Flexibility, Individual Attention

Treating patients with eating disorders in an intensive outpatient setting offers a number of advantages for patients, families, and staff members alike, according to Dr. David M. Garner, Director of the River Centre Eating Disorders Program (formerly the Toledo Center for Eating Disorders, Toledo, OH). Dr. Garner, Julie Desai, and other staff members described their intensive outpatient program during a workshop at the recent Academy for Eating Disorders annual meeting in San Diego.

A major advantage of an intensive outpatient program is the flexibility to design and alter individual treatment. For example, Pamela Orosen-Weine, PhD, Director of Outpatient Services, contrasted the intensive outpatient setting with a hospital-based outpatient program where no workable intensive or hospital program specially designed for people with eating disorders could be developed. When patients with eating disorders had escalating symptoms, little could be done for them except to put them on a general unit. "One of the benefits of working in an intensive outpatient program, "Dr. Orosen-Weine said, is that "it reduces therapists' anxiety about what to do when a patient's symptoms are escalating." Another advantage is that a therapist working in an intensive outpatient treatment program has the leverage to help patients move back and forth between programs, as needed, creating a very beneficial continuity of care.

Frequent staff conferences help prevent and minimize frustrations, burnout, and excessive negative countertransference

The Setting

Patients typically spend 7-hour days, 3 to 5 days a week, at River Centre. The small size of the group, usually about 10 to 12 patients at a time, and the staff size, at least 5 staff members on duty each day, lead to close monitoring and interaction. Patient ages range from adolescents to adults. Adolescent and younger patients stay at home with their parents while adult patients live in nearby apartments or hotels. About 30% of patients come from outside the immediate area and two-thirds are within a 2-hour commute.

The length of stay varies widely. The average stay for anorexia nervosa patients is 5 days a week for 3 months. Some patients become well enough to

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Update

Anorexia Nervosa: Personality Traits Can be Genetically Transmitted

Personality traits that can contribute to development of anorexia nervosa (AN) can be inherited, according to results of a study at Western Psychiatric Institute and Clinic, Pittsburgh. Kelly Klump, PhD, and colleagues assessed personality characteristics in 28 female probands diagnosed with DSM-III-R AN and their first-degree relatives and 44 non-eating–disordered women, together with 136 of their first-degree relatives. Personality characteristics were evaluated with the Multidimensional Personality Questionnaire. Compared to the control women, AN probands had significantly elevated achievement, stress reactivity, and negative emotionality scores, and significantly lower well-being and social closeness scores. Similarly, relatives of AN probands also showed elevated stress reactivity and negative affectivity scores, and lower well-being scores compared to relatives of control women. The elevated stress reactivity and the lower well-being scores in relatives of AN probands could not be accounted for by the presence of an eating disorder in these relatives.

ALSO IN THIS ISSUE

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attend only 3 days a week. Dr. Garner stressed that the intensive day treatment program is a vehicle for achieving therapeutic goals, not simply a 10-week or 15-week, one-size-fits-all program.

To avoid the types of problems that managed-care systems have with flexible treatment times, the center makes certain in the beginning that enough time is allowed for a realistic length of participation in the program. If an anorexic patient is to gain an average of 2 lb per week, it would thus take 15 weeks for her to gain 30 lb, for example, plus 2 to 3 weeks after the goal weight is met to give the patient enough time to gain self-confidence, and be able to maintain her weight.

Some individuals in junior high, high school, or college devote full time to their treatment; others who live in the area may attend school part time during treatment. Some students benefit from attending school because they stay connected to their friends and others in their home environment as well as keeping up with their homework and social contacts. Some clients are tutored in the evening, after the day's treatment is over, or on weekends. Some attend school in the morning and come to the Center in the afternoon.

Continual Monitoring

Patients are monitored throughout the day, including in the kitchen and during and after meals. Those who have problems with purging are accompanied to the restroom.

"When patients first come to the center, most are not eating much at all. At that point they are not expected to do their own meal planning because this is too overwhelming to them," Dr. Garner said. As they get better, patients can chose from 30 to 40 different prepackaged entrees. The staff approaches resistance to meals by asking patients to think of planned mealtimes as an experiment during treatment: just as a splint is used to support a broken bone, structured meals are necessary, for a time, to help normalize eating. "We ask patients to take a moratorium from anorexic thinking and from their anorexic eating style, to give them some experience in eating in a way clearly not related to anorexia nervosa," he said.

When patients first enter the program, the goal is to get them to eat all their daily calories in a 7-hr. period. As they get better, this moves toward a more natural way of eating. When patients first enter the program, they may receive a "prescription" for 1500 kcal/day, for example. While this might seem mind-boggling to them since they have often been eating only 400 kcal/day, Dr. Garner has found that it rarely takes more than 2 days to get patients up to eating approximately 2000 kcal per day.

Weight Goals

Body weight is only one part of the equation for recovery, and when weight goals are calculated, the staff uses a target weight that they estimate will allow the patient to begin to menstruate. They stress that weight should be a healthy weight, defined as a weight that the patient can maintain biologically without a great deal of dieting. Goal weights often have to be approached in stages with a patient, such as using positive ways of framing the need for additional calories, stressing the importance of improving metabolic function, and "bathing the brain with nutrients." The emphasis is on improving health and increasing strength. "The goal weight is nonnegotiable if recovery is the goal," says Dr. Garner.

Calories are also presented as medication; that is, the patient is told that if the amount of prescribed food is producing too great a weight gain (above 3 lb per week, for example), the "dosage" will be cut. "Our program's emphasis is on proper control of eating and weight gain, as opposed to programs that attempt to pack on as many pounds as possible per week," Dr. Garner remarked.

Weight gain is not the only

criterion for discharge. In fact, Dr. Garner said, "We are very clear about communicating that weight gain is a minimal standard—a necessary but insufficient standard for recovery." In other settings, patients may feel that once they gain the requisite weight they won't be able to get the psychological help they need, and may therefore become even more resistant to gaining weight.

Working with Other Professionals in the Community

The staff also works closely with primary care physicians, psychiatrists, and other professionals in the community, to help the patient prepare to go back into the community once treatment is over. A good part of the staff's work in intervention involves collaborating with schools and guidance counselors to make sure the client gets homework assignments and to let teachers know what is going on.

An internist, psychiatrist, and nutritionist act as staff consultants. The internist is available whenever patients have medical difficulties or serious problems with any complication of treatment. The nutritionist helps with meal planning. There is a strong emphasis on follow-up and prevention of relapse.

Family Therapy

Dr. Garner noted that family therapy takes many forms at the center—there is more than one model. He said there is conceptual harmony between cognitive behavioral therapy and family therapy, and staff members and families work on themes of overprotectiveness, enmeshment, and poor conflict resolution. Parenting skills are also taught. As Dr. Garner explains, "The hallmark of our program relates to flexibility in the integration of principles of interpersonal and family therapy as well as cognitive behavioral therapy."

Group meetings take many forms—for example, at one time, when the center was treating 4 or 5 very young patients, they arranged morning meetings with all of the families because the themes applied to all. The parents shared their concerns. This process was very effective because parents felt they were not alone with their problems and also felt they weren't being "picked upon" or singled out for blame because the other parents had the same concerns and issues.

For individuals, meetings are purposely kept short—usually no longer than 10 to 15 minutes. This is possible because of the intensive treatment setting, Dr. Garner explained, adding, "You don't have to collect a whole week of background information when you have seen the person the day before or when they have been in a group. We can really get right to the heart of the subject and address the issues that interfere with treatment and other issues that need to be addressed, such as relationship problems or eating management issues."

Staff Meetings

Frequent staff conferences, sometimes 3 to 4 a day, help prevent and minimize frustrations, splitting, burnout, and excessive negative countertransference. These meetings also help intercept little problems before they escalate. They might take the form of therapeutic meetings in which staff members touch base with one another to follow up on a patient who has been having difficulties around certain food-related issues or interpersonal problems. "We are very up front with patients about our concerns," Dr. Garner said, "and we talk with them and each other in group meetings about staff concerns and hidden agendas."

Follow-up

The staff also keeps close telephone contact with parents. If parents if they are having problems, they are encouraged to telephone immediately rather than waiting for the next weekday or waiting over a weekend, so that progress made during the week can be enhanced, supported, or even salvaged.

A recent case underscored the versatility of services that an outpatient intensive care program can offer. In a reverse twist on the ordinary concept of level of care, a patient was losing weight and not eating in a local hospital, so her parents took her out of the hospital and enrolled her in the intensive outpatient program. The hospital staff had been confused about how to handle the patient's refusal to eat. She did well at River Centre, according to Dr. Garner because, "The staff has a great deal of experience in providing specialized treatment with this population, and it is our impression that staff experience, as well as operating within a good theoretical model of care, are the cornerstones of effective treatment."

Mary K. Stein, Managing Editor, contributed to this article.

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A Drug That Combats Depression, Smoking, and Obesity?

Bupropion SR (Zyban®, Wellbutrin®), an antidepressant that is also used to help patients quit smoking, may have a future as a weight-loss aid. As reported at the American Psychiatric Association meeting in Washington, D.C., a team at Duke University led by Dr. Kishore Gadde found that women who took the drug and followed a 1600 kcal/day diet lost 4 times more weight than women who followed an identical diet but received a placebo.

The study included 31 women who did not have depression and who weighed an average of 222 lb. After 8 weeks, the 18 women who received bupropion SR had lost 6.2% of their body weight, while 13 women who received the placebo lost 1.6% of their body weight. The women continued to lose weight as the study reached the 6-month mark. (Note: Bupropion is contraindicated in patients with bulimia nervosa or anorexia nervosa because of a troubling incidence of seizures in actively purging patients treated for bulimia nervosa with the intermediate-release formulation.)

NUTRITION NOTES

Talking About Bone Density: Educational Tools Can Help Make the Point

As an educator, I am always looking for tools to help convey information to my clients. Individuals with eating disorders can present very specific challenges when it comes to education. As health professionals know, these clients can instantly refute even the clearest and most concise information. Even the most pressing health issues may be too abstract, too scary, or too real to break through the wall of denial. This is the 'I can't see it, I can't feel it, therefore it isn't happening' syndrome. Even with a bone density scan in hand, the topic of bone mineral loss in anorexia can meet this fate.

Discussing bone density

How do I begin a discussion of bone density? I use images. For example, the 1998 summer issue of *Scientific American Presents: Women's Health: A Lifelong Guide*[1] contains exquisite color photographs of healthy and osteoporotic bone. These images demonstrate the powerful contrast between the strength of healthy bone and the fragility of osteoporotic bone.

With visuals in hand, I reach for my other tool—journal articles. Clients frequently want evidence, so I oblige them. For discussions about bone density, I find the review article *Mechanisms and Treatment Options for Bone Loss in Anorexia Nervosa*, by Steven Grinspoon MD, David Herzog MD and Anne Klibanski MD[2], extremely helpful. With the patient, I review the article abstract, line by line. In clear language, the client can read the following important facts:

❑ "Osteoporosis is present in over half of all patients with anorexia nervosa.

❑ Bone loss often occurs at a young age and may persist after recovery…

❑ The pathogenesis of bone loss in anorexia is not completely understood, but may result from a number of different mechanisms, including estrogen deficiency, inadequate vitamin and calcium intake and nutritional effects on bone formation.

❑ In a majority of patients, estrogen itself is not enough to increase bone mineral density. Research suggests that nutritionally dependent factors such as insulin-like growth factor (IGF-I)…may be important in maintaining bone mass.

❑ Currently, weight gain, restoration of gonadal function, and calcium supplementation remain the cornerstones of treatment."

As a dietitian, almost every aspect of denial that I encounter is addressed in this article. As the client and I read through the abstract, we refer to the paragraphs where each topic is addressed in detail. After we review the entire article, I give her a copy to keep.

—Tami J. Lyon, MPH, RD, CDE

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2. Grinspoon S, Herzog D, Klibanski A. Mechanisms and treatment options for bone loss in anorexia nervosa. *Psychopharmacol Bull* 1997;33:399.

Nutritional Markers Can Identify Functional Amenorrhea

Functional hypothalamic amenorrhea (FHA) has been attributed to excessive exercise or psychogenic stress. French researchers recently reported that mild but prolonged dieting, particularly with fat restriction, might interfere with gonadotropin secretion, leading to FHA. Assessing certain nutritional markers can help identify and correct this purely reversible condition, according to Dr. Gilbert Schaison and colleagues (*Clin Endocrinology* 1999; 50:229).

Twelve women (22 to 35 years of age) with FHA not related to exercise and 12 age- and BMI-matched controls who were menstruating were enrolled in the study. An additional group of 6 women with congenital hypothalamic hypogonadism—representing complete gonadotropin deficiency—were enrolled as a comparison group. Plasma estradiol (E_2) and androstenedione levels were measured, and the pulsatile profile of luteinizing hormone (LH) was studied. A gonadotropin-releasing hormone (GNRH) agonist test using Triptorelin® was performed. Dietary intake and body composition were reported and the following nutritional markers were measured: free triiodothyronine (T_3), ferritin, retinol-binding protein (RBP), sex hormone-binding globulin (SHBG), insulin-like growth factor 1 (IGF-1), and leptin.

The 12 women with FHA met with a dietitian for nutritional counseling. They were given a diet of 1800 ± 200 kcal/day (30% fat, 20% protein, and 50% carbohydrate), divided into 3 meals and a snack.

Results

In spite of similar BMIs (19.2 among patients with FHA vs. 20.0 in controls), the caloric intake was significantly lower in women with FHA than in lean menstruating control women. Women with FHA had significantly less body fat and greater lean body mass than normal controls. Nine of the 12 women with FHA were unable to follow the recommended diet (for unspecified "psychological reasons), and remained amenorrheic. The authors noted that it is common for women with FHA to avoid fat calories and/or to increase daily exercise to keep their weight in the low-normal range.

Among the 3 women who did increase their caloric intake for 4 months, uterine bleeding occurred spontaneously after 2 months.

Changes in markers may uncover abnormal eating patterns

With women who have a BMI in the low-normal range who aren't exercising excessively, it may be difficult to recognize that lack of nutrition may be causing hypothalamic dysfunction. According to the authors, a reduction in the mean levels of the nutritional markers FT_3, ferritin, RBP, IGF-1, and SBGH may provide clues to abnormal attitudes toward food, including severe caloric and fat restriction. In addition, a reduction in plasma leptin levels was consistently noted.

GNRH secretion is partial and reversible when patients with FHA follow a proper diet for several months. In addition, the authors believe that Triptorelin stimulation may be a useful tool for diagnosing occult FHA. Less than 24 hours after it is given, it induces both the release of and then the synthesis of LH, FSH, and E_2, demonstrating that the gonadotropin deficiency is functional and thus reversible.

Meal Composition and Carbohydrate Craving

New Zealand researchers have found that eating a protein-rich meal can increase the desire for sweet-tasting , palatable food in certain individuals (*Addictive Behav* 1999;24:305).

In the study, 9 women ate 3 meals containing varying amounts of protein and carbohydrate. Appetite and mood ratings were measured at 30, 60, 105, and 150 minutes after beginning the meal. The first ad libitum eating episodes after the protein meal contained significantly higher absolute and proportional amounts of total carbohydrate and sucrose.

The authors offered several possible explanations for the increased craving for sweet-tasting foods after the protein meal. First, due to the process of sensory-specific satiety, the protein meal could have resulted in a lessened preference for foods with similar sensory properties. Second, even after sequential meals, a protein-rich meal is known to produce relative decreases in plasma tryptophan, the amino acid precursor to serotonin. Finally, the lack of a sweet food signaling the end of a rich meal may leave susceptible persons craving such foods.

Binge Eating in the General Community

There is still much to learn about the psychosocial and behavioral aspects of binge eating in non-clinical populations. It has been estimated that about 35% of college students binge eat (*Am J Psychiatry* 1990;147:401), and one article suggested that from one-fourth to one-half of obese people who seek treatment for weight loss binge-eat (*Int J Eat Disord* 1992;11:333).

Overweight women were twice as likely to be binge eaters.

A study at the University of Minnesota has produced some intriguing information about overweight and normal-weight women in the general community who binge-eat (*Int J Obesity* 1999;23:576). The researchers found that overweight women were about twice as likely as normal-weight women to binge-eat. However, after studying 816 women aged 20-45 years of age who enrolled in the Pound of Prevention Study, a 3-year prospective weight gain prevention trial, they also learned that both overweight and normal-weight women were similarly affected by dieting, depression, and preoccupation with weight and shape. Compared with normal-weight women, overweight women were less active, spent more hours watching television each week, ate more "fast-food" meals, had a higher total energy intake, and used fewer low-fat eating behaviors.

The binge eaters

Binge eaters were identified with the Questionnaire on Eating and Weight (revised) (*Obes Res* 1993;1:306). The two key questions that helped classify subjects as binge eaters were: (1) "During the past 6 months, did you ever eat within a 3-hr period what most people would regard as an unusually large amount of food?" and (2)"During the times when you ate this way, did you feel you couldn't stop eating or control what or how much you were eating?"

The overall prevalence of binge eating during the prior 6 months was 14.0% (9% among normal-weight women and 21% among overweight women). More than half of the binge eaters binged less than once a week. These results suggested that binge eating was not as prevalent in the community as had been estimated. When the researchers investigated the diet histories of both groups over the past 3 years, they found that binge eaters had gained more weight than non-binge eaters. During their lifetime, binge eaters had also intentionally attempted to lose weight slightly more than twice as many times as non-binge eaters

In general, binge eaters scored higher than non-binge eaters on general measures of psychological distress, as well as on tests that specifically focused on body image. Compared to non-binge eaters, binge eaters reported using more ways to diet, more extreme attitudes about weight and shape, and higher levels of depression and stressful life events. In addition, weight/shape was more than 3 times more likely to be the main or most important aspect of self-evaluation among binge eaters compared to non-binge eaters. The frequency and characteristics of binges were similar in both groups.

A Unique Way to Avoid the Scale

A Swedish clinician has found a sure-fire way to help patients with anorexia nervosa avoid dreaded weigh-ins, even while making certain he closely charts their progress. Dr. Per Kronvall of the Unit for Eating Disorders, University Hospital, Lund, Sweden, uses a small hand-held infrared thermometer to measure body temperature in the ear. Body temperature fluctuates with the amount of food eaten, and Dr. Kronvall has found that such changes in body temperature mirror metabolic changes. He reports that the method is very sensitive for fully grown patients. The measurements taken at the ear help lessen anxiety about being weighed and the possibility of weight gain, which can interfere with treatment.

BOOK REVIEWS

Guided Self-Help Books:

Body Image Workbook: An 8-Step Program for Learning to Like Your Looks

(Thomas F. Cash, PhD, New Harbinger Publishers, Oakland, CA; 1997, 221 pp., paperback, $17.95)

The Don't Diet, Live-It! Workbook: Healing Food, Weight and Body Issues

(Andrea LoBue and Marsea Marcus, Gurze Books, Carlsbad, CA; 215 pp., 1999, paperback, $17.95)

In past issues I've reviewed several excellent books designed to guide self-help efforts for patients with eating disorders. Those by Apple and Agras (accompanied by a therapist's guide by Agras and Apple), Fairburn, and Treasure have been particularly useful and have been based on cognitive behavioral therapy (CBT) principles. These books have been designed for use by patients alone or with the assistance of therapists.) For a discussion of this type of work, clinicians using bibliotherapy in their practices might want to read an article by M.V. Pantalon et al, "Use and effectiveness of self-help books in the practice of cognitive and behavioral therapy" *(Cognitive and Behavioral Practice* 1995; 2:213-228).

The two additional books being reviewed in this issue, which have slightly different orientations, add to this literature. Both can be used alone or with therapists, in individual or group format.

First, Thomas Cash, one of the most productive academic researchers in the area of body image, offers a very-well-conceptualized and well-executed workbook focusing on this area. Disturbed body images are painful and persist during recovery, often long after patients are already overcoming their nutritional problems and disordered behaviors. Cash's thorough book offers a wonderful tool for addressing these problems. Empirically supported by research showing increased body image satisfaction and decreased distress following its use, the program is based on the following 8 steps: discovering one's body image and setting goals for change; understanding the causes of discontent; getting comfortable with one's body through body and mind relaxation and body image desensitization; changing faulty "private body talk" with corrective thinking; defeating self-defeating behavior by facing what one avoids; eliminating appearance pre-occupied rituals; treating one's body right with affirming and enhancing activities; and continuing to improve and preventing relapse.

The book starts with a set of self-assessment measures, the body areas satisfaction test, the "wishing well" test (to gauge one's ideals), a distressing situations test (to ascertain which situations are most likely to provoke negative feelings about appearance), and several other body-image tests. Exercises of various types fill other chapters. There are 42 separate " help sheets" for self-discovery and for change, which evoke, provoke and direct. Each chapter offers a well-described, empirically based theoretical rationale, clearly and non-technically presented, lots of good information, and words of encouragement. I'm going to incorporate this book's exercises into my own clinical practice on a routine basis.

The Don't Diet, Live-it! Workbook represents a humanistic-psychology orientation that focuses on journaling as a means of self-exploration. The book's guiding metaphor is that recovery is a journey, and participants are invited to journey repeatedly through the workbook, doing the various exercises over and over again, seeing how they change and evolve as time goes on. The levels of focus concern the emotions that are associated with, perhaps underlying or perhaps resulting from, issues concerning food, eating patterns and weight. "Travel tips" for the journeys include: "travel at your own pace," "be spontaneous" (periodic spontaneous rode trips are included), "keep your belongings in a safe place" (including the workbook so that others don't peek in), and "don't travel alone in dangerous territory" (suggesting that having a psychotherapist, support group or other close and supportive person is essential when embarking on deep self-discovery).

The book crisscrosses various issues, questions and self-explorations, addressing a broader list of issues than usual CBT with four stages of recovery: denial, transition, early recovery, and ongoing recovery. After each "journey," a list of checkpoints is included for individuals to self-assess their status and progress. The exercises are more open-ended than those of most CBT based programs. While there are clearly CBT influences, exercises also suggest other humanistic psychology, Jungian, Psychosynthesis and Gestalt psychology perspectives. At each stage (or journey), participants go over the same issues from different vantage points, working them through. Participants are asked to explore issues such as their usual outer solutions vs. inner solutions (i.e., what others have called alloplastic vs. autoplastic emotional self-regulators); isolation vs. reaching out, thoughts vs. feelings; all-or-none vs. complex thinking (colorfully called "black and white vs. rainbow thinking), criticism vs. praise, competition vs. camaraderie, holding on vs. letting go, and "human doing" vs. "human being."

While the organization of the book may seem confusing at first, the idea of reworking these issues at different times is appealing. Although to my knowledge this program has not been empirically tested, some may find this orientation to be inviting and some may even wish to supplement more structured CBT programs with exercises from this workbook. Helpful lists of national organizations, advocacy groups, websites, and recommended readings and tapes are included, and there's a special chapter for professionals who wish to lead *Live-It* groups, describing in detail how these therapy groups are established and conducted.

—J.Y.

Follow-up Reveals the True Aftermath of Anorexia Nervosa

Regardless of their actual weight, patients with anorexia nervosa are usually unhappy about their weight and shape. They are reluctant to accept nourishment and thus avoid gaining weight. Two recent studies have shown that women with a history of anorexia nervosa should be followed longitudinally to detect relapse and compromised bone density.

A return to restriction

Dr. E. Nova and colleagues at Instituto de Nutricion y Bromatologica, Madrid, Spain, reported that after a year of treatment, a follow-up study showed that most AN patients had returned to their old patterns of restrictive eating. This pattern was particularly marked among patients who had regained the most weight.

Among the 14 adolescent patients who had been recruited for the study when admitted for inpatient treatment, then studied at 1 month after admission (inpatient), 6 months (outpatient), and 12 months, increased energy intake was better accepted by increasing the relative contribution of macronutrients other than fat. All anthropometric measurements (height, weight, BMI, subscapular arm fat, etc.) increased significantly between the time the women were admitted and the first month of treatment, and continued 12 months later. Negative correlations were found between energy/fat/carbohydrate intake and the contribution of protein to total dietary energy.

Bone loss 11 years after diagnosis

Results of a second study underscore the fact that resumption of menses and an outward appearance of normal body weight do not guarantee normal bone density in women with a history of anorexia nervosa. When 36 former anorexia nervosa patients were re-evaluated an average of 11 years after the initial diagnosis, 85% had abnormal bone density (*J Women's Health* 7:567, 1998). Of those with below-normal bone density, 50% were osteopenic and 35% had osteoporosis. The youngest woman with osteoporosis was 20 years old.

The most common site of bone loss among women 20-45 years of age was reported at the proximal femur; the average T score (World Health Organization T score criteria for osteopenia) was –1.22, and the average femoral neck T score was –1.33. Spinal bone density was also reduced: the average total lumbar Z score (bone mineral density score) was 91% of the mean for age; the total Z score was –0.84.

The authors found a significant correlation between lumbar bone density and total years of estrogen exposure. They also reported a consistent inverse relationship between both femoral and lumbar bone density and mineral content with total years of amenorrhea. The absence of menses may serve as an independent contributor to the compromised bone density seen in both the appendicular and axial skeleton.

Winning at Long-term Weight Loss

One of the most discouraging facts of life for obese persons and those who try to help them reach a healthy body weight is the poor long-term results of most weight-loss programs. According to results of a recent study, however, managing to maintain weight loss for several years greatly improves the chances that it will stay off.

The National Weight Control Registry is conducting an ongoing longitudinal study of individuals 18 years of age or older who have lost at least 30 lb (13.6 kg) and have maintained the loss for at least 1 year. Maureen T. McGuire and colleagues studied 714 of the more than 1000 persons listed in the registry, using questionnaires and other measures to determine differences between those who successfully maintained weight loss and those who regained weight (*J Consult Clin Psychol* 1999;67:177).

The secret: maintaining healthy habits

At one-year follow-up, 248 individuals (35%) had gained more than 5 lb, 420 (59%) maintained their weight loss within 5 lb, and 46 (6%) had lost more than an additional 5 lb.

Several variables emerged that predicted who would gain weight over the year versus those who could successfully maintain weight loss. The variables included higher initial body weight, greater history of weight cycling, higher initial weight loss, shorter maintenance of weight loss, higher levels of both disinhibition and depressive symptoms, and reporting a desire to lose weight—rather than maintain or gain—when they initially entered the study.

Those who regained weight were unable to maintain healthy eating and exercise habits over the long term. Individuals who regained their weight reported marked decreases in physical activity (more than 800 kcal/week) and increases in the percentage of calories from fat with no other change in overall calorie intake. Those who gained weight also reported having increased hunger, dietary disinhibition, and binge eating.

The authors noted that generalizing about the results from this group must be done cautiously because the Registry group may be more highly motivated, better educated, and healthier than the general population. However, they did find that looking at an individual's weight change history and psychological measures at baseline were helpful for guiding interventions to prevent weight regain.

Questions & Answers

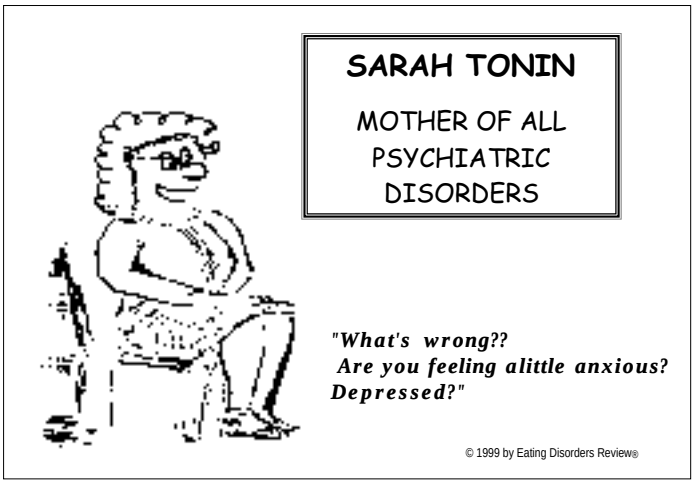
Childhood Risk Factors for Anorexia Nervosa

Q. I've heard that childhood depression and obsessive-compulsive personality and obsessive-compulsive disorder have been identified as risk factors for the development of anorexia nervosa. Are any other childhood psychiatric disorders known to be risk factors? *(R.R., St .Louis, MO)*

A. In addition to the two disorders mentioned above, other known risk factors include a family history of eating disorders and, of course, dieting and excessive exercise. A controlled research study has also found that overanxious disorders of childhood and social phobia are common in both anorexia nervosa and bulimia nervosa, and most often occurred before the onset of the eating disorders. Among eating disorder patients, the anxiety disorders occurred before the eating disorder in more than 90% of cases, although panic disorder tended to first develop after the onset of anorexia nervosa or bulimia nervosa. The study showed that anxiety disorders may be nonspecific risk factors for later eating disorders, but that some may represent more specific antecedent risk factors. (*Acta Psychiatr Scand* 1997; 96:101)

—J.Y.

Nibbles, by Hunter



"Hunter" is an internationally respected author and lecturer on eating disorders.

Prematurity, Birth Trauma Linked To Risk of Anorexia Nervosa

A small number of cases of anorexia nervosa can be traced back to birth trauma or very preterm births, according to Swedish researchers (*Arch Gen Psychiatry* 1999;56:634). Subtle brain injuries from premature birth or birth trauma may later pair with individual or environmental factors and interfere with an individual's ability to differentiate hunger and satiety.

In a population-based case-control study of all girls born in Sweden from 1973 to 1984, Sven Cnattingius, MD, PhD, and colleagues at the Karolinska Institute identified 781 girls who had been discharged from any hospital in Sweden with a primary diagnosis of anorexia nervosa between the ages of 10 and 21 years.

Greater risk before 32 weeks gestation

The risk of developing anorexia nervosa was increased for infants with a cephalhematoma (usually caused by vaginal instrumental delivery) and for those born before 32 gestational weeks. The girls who had very preterm births and were small for gestational age had a greater risk of developing AN than girls with higher birth weights for gestational age.

Why does AN develop in such circumstances?

The authors theorize that prematurity leads to suboptimal neurologic development and cognitive delay, which might influence behavioral problems, including severe eating difficulties. According to the researchers, such difficulties usually start early and continue throughout childhood. Early eating disorders may then persist throughout adolescence, and such problems often precede the onset of anorexia nervosa. In addition, very preterm birth may cause early hypothalamic dysfunction.

In the Next Issue

Athletes and Eating Disorders: Results from the Ongoing National Collegiate Athletic Association Study
By Pauline Powers, MD

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RENFREW CENTER FOUNDATION CONFERENCE
"Feminist Perspectives on The Process of Change"
November 12-17 • Philadelphia
For information: (877) 367-3383

EATING DISORDERS RESEARCH SOCIETY
November 19-20 • San Diego
For information: (619) 594-3254

How to Stop Abusing Laxatives

People who abuse laxatives often find themselves in a no-win situation. They use laxatives to "feel thin," which is an immediate, positive result. Eventually, however, the exact opposite occurs. They find themselves "feeling fat" from excessive water retention—a delayed, negative result. Here are some steps to stop abusing laxatives:

1. Stop taking laxatives right now, and do not take any more unless your physician instructs you to do so. Remember that stimulant-type laxatives are especially harmful to the body (see the reverse side).

2. Drink at least 6 to 10 cups of water (and decaffeinated beverages—not caffeinated beverages because they act like a diuretic, promoting loss of fluid) a day. Restricting your fluid intake at this time promotes dehydration and only worsens the constipation.

3. Including some physical activity in your regular daily pattern can also help to regulate your bowel function, although you should discuss the intensity and type of activity first with your health care provider or therapist. Too much or too vigorous exercise can worsen constipation, due to the effects on your metabolism and fluid balance.

4. Eat regularly. It is important that you spread the amount of food recommended to you on your meal plan across at least 3 meals a day, and to eat these meals at regular intervals.

5. Eat more foods that promote normal bowel movements. The healthiest dietary approach to promoting normal bowel function is to eat more whole-grain breads, cereals, and crackers and wheat bran or foods with wheat bran added. This dietary approach should be done in tandem with drinking more fluids. Vegetables and fruits also contribute to normal bowel function. Prunes and prune juice are not recommended because the ingredient in prunes that promotes bowel movements is actually an irritant laxative, and long-term use of prunes and prune juice can result in the same problem as long-term use of laxatives.

6. Write down the frequency of your bowel movements on a sheet of paper. If you are constipated for more than 3 days, call your physician, dietitian, or psychotherapist.

What to Expect from Laxative Withdrawal

There is no way to predict exactly how stopping laxatives will affect you. For example, the amount or length of time laxatives have been used is not an indicator of how severe the withdrawal symptoms will be. The best way to lessen the unpleasant effects of laxative withdrawal is to prepare yourself for these effects and to develop an action plan for coping in case the unpleasant side effects do occur.

Common side effects of laxative withdrawal are:

- constipation
- fluid retention
- feeling bloated
- temporary weight gain

Just reading this list, you can see that laxative withdrawal is especially difficult for people with eating disorders. You already are highly reactive to "feeling fat" and the symptoms of laxative withdrawal only worsen this feeling. To help you get through the process of laxative withdrawal, it is essential to remember that any weight gain associated with laxative withdrawal is only temporary. Symptoms of laxative withdrawal do not lead to permanent weight gain.

How long will laxative withdrawal last? This varies greatly. A few people have these symptoms for 2 days; a few others have had them for 2 to 3 months. Most people have symptoms of laxative abuse for 1 to 3 weeks after stopping laxatives.

Laxative Abuse: Myths and Medical Complications

MYTH: *If you induce diarrhea with laxatives, you can prevent the absorption of food and avoid body weight gain.*
FACT: Inducing diarrhea by laxatives does not significantly change the absorption of food in the body. Consequently, laxatives do not significantly prevent weight gain. What appears to be weight loss is actually dehydration or water deprivation. Laxatives work near the end of the bowel, where they primarily affect absorption of water and electrolytes (like sodium and potassium). They thus work **after** most of the nutrients from the food have been absorbed into the body.

MYTH: *You need to use a laxative every time you **feel** constipated.*
FACT: "Feeling" constipated does not necessarily mean that you are constipated. This is especially true of people who have problems with eating. Eating too little food or eating sporadically can result in the sensation of constipation. In this case the problem is not constipation but poor eating habits.

MYTH: *When you actually are constipated, you need to use a laxative.*
FACT: People who use excessive amounts of laxatives will eventually find the exact opposite happening—the laxatives will cause reflex constipation.

MYTH: *All laxatives are alike.*
FACT: There are many different types of laxatives that are taken by mouth or as a suppository. The ones most commonly used are:

Stimulant-type laxatives, including Ex-Lax®, Correctol®, Senokot®, Ducolax®, Feen-a Mint®, and some of the so-called herbal laxatives.

Osmotic-type laxatives, including Milk of Magnesia®.

Bulk agents, including Metamucil®, Colace®, and unprocessed bran. Bulk agents promote bowel movement. When bulk agents are used as directed (with large amounts of water), they don't have the same physical effects on the bowel as the stimulant and osmotic laxatives. However, when these bulk agents are misused, they have the same psychological consequences as regular laxatives. Misusing these agents must be discontinued.

MYTH: *Laxatives, particularly over-the-counter products, are safe.*
FACT: Laxative abuse can be medically dangerous. Laxative abuse is defined as (1) use of laxative for weight control, or (2) frequent use of laxatives over an extended period of time.

Medical Complications of Laxative Abuse

The medical complications of laxative abuse depend on several factors, including the type of laxatives used, the amount used, and how long they have been used. Some of the more common complications of laxative abuse follow.

Constipation. Repeated use of laxatives actually causes constipation. This may lead people to increase the dosage of the amount of laxative, which in turn only worsens the constipation problem.

Dehydration. Laxatives cause fluid loss through the intestines. Dehydration then impairs body functioning.

Electrolyte abnormalities. Many people who abuse laxatives often demonstrate electrolyte imbalances. Electrolytes such as potassium, sodium, and chloride are important to life functions. With chronic diarrhea, electrolytes are drawn out of the body through the feces. This leads to an electrolyte imbalance in the body.

Edema. As noted before, laxatives cause fluid loss. Dramatic changes or fluctuations in fluid balance confuse the body's self-regulating protective mechanisms by retaining fluid. As a result, prolonged laxative abuse frequently leads to fluid retention or edema.

Bleeding. People who abuse laxatives, especially the stimulant-type laxatives, can develop blood in their stools. Chronic blood loss associated with laxative abuse can lead to anemia.

Impaired bowel function. People who abuse stimulant-type laxatives can develop permanent impairment of bowel function.