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Eating Disorders and Adolescents

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An Internet search of "eating disorders" yields 15,000,000 websites and almost 20,000 images. Stories about eating disorders among popular performers also regularly appear in the press (see *People* magazine October 27, 2006 cover story), and TV (HBO's documentary *Thin* airs later this month, beginning November 14th). As is often true, when there is a large amount of easily accessed information there is also a large amount of mis-information. The purpose of this article is to inform readers about the facts and recent and emerging research findings about eating disorders. First, the what (definitions), how (behaviors related to eating disorders), who (affected individuals), when (developmental stages), and why (causes and risk-factors) will be discussed. Then, some key points about prevention and treatment will be reviewed. Next, recent and emerging research findings will be described. Finally, an innovative system of care being developed in New York State under the leadership of the Department of Health will be shared.

What are Eating Disorders?

In restrictive anorexia nervosa (AN), a person severely restricts caloric intake, and often exercises excessively because of an overwhelming desire to lose weight. In bulimia nervosa (BN), a person is afraid of gaining weight, but ingests large amounts in a brief period (binges), then tries to rid the body of the effects of these extra calories by fasting, vomiting, exercising, or using laxatives immediately afterward. Most people with an eating disorder do not fit neatly into either of these categories and are said to have an eating disorder, not otherwise specified (ED-NOS), popularly called "disordered eating". For a more detailed description of the conditions beyond the scope of this article, please visit the Academy for Eating Disorders (AED, www.aedweb.org, for professionals, but highly informative for everyone) and the National Eating Disorders Association (NEDA, www.edap.org, for consumers, but also highly informative with a number of downloadable fact sheets).

How Do Adolescents with Eating Disorders Behave?

The best way to understand how adolescents with an eating disorder might behave is to put one's self in their shoes. Imagine believing that losing weight is the only way that you can achieve a sense of mastery in your life. Things are happening all around and within your own life that seem out of your control. Also imagine that you have always been a perfectionist, but have never really felt very good about yourself - regardless of praise that you get from others. Finally, you are surrounded by "you can never be too thin" messages from a variety of sources. This might be the situation for a person with AN. What do you do? You might: stop eating breakfast, schedule a class during lunch, eliminate snacks, exercise every way possible, and keep busy. However, when these behaviors become extreme or numerous and affect every organ system, including your brain, you end up feeling worse, not better, and assume that you just need to lose more weight to feel better about yourself.

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Likewise, imagine that you have an intense fear of obesity, but lack the "will power" to limit calories on a consistent basis, the motivation to exercise regularly, and the ability to control impulses or sad moods. You also find comfort eating large amounts of high-calorie foods, but doing so only makes you feel worse. So, you do things to rid your body of calories. Although harmful, these things are less frightening than gaining weight, and may even make you feel less guilty or sad. This might be the situation for a person with BN. You might end up not eating breakfast or lunch because you want to lose weight, but then come home from school, feeling lonely or sad and eat a donut. You start feeling better eating donuts and before you know it, you've eaten the whole box. This makes you feel guilty and ashamed, and the only thing you can think of is to vomit before anyone else gets home. Your brother arrives home a few minutes later, goes to the pantry and starts yelling at you because all the donuts are gone. Embarrassment, sadness and anger cause you to vow to never binge and vomit again, but you know deep in your heart that you will, because you are trapped in an addictive cycle, and don't see any way out of the pattern.

Who are Affected by Eating Disorders?

The AED reports that among late adolescent and young adult females, at least 10% have symptoms of eating disorders and those with BN outnumber those with AN by at least 2-to-1. Although the stereotype for eating disorders is a white adolescent or young adult female living in the suburbs, males get eating disorders, as do older women (who often have a chronic form starting in adolescence), and people of color. Some individuals seem to be particularly at-risk, however, including models, those with a family member who has/had an eating disorder (see research findings), or anyone who places an undue emphasis on thinness or avoiding obesity, such as athletes who follow diet, appearance, size or weight requirements for their sport. For example, NEDA cites a study of college athletes, in which more than 1/3 of females reported attitudes and symptoms placing them at risk for AN. The "female athlete triad" (low weight, loss of menstrual periods and weakened bones (osteoporosis) even has its own website for professionals (www.femaleathletetriad.org). Although eating disorders occur in an individual, it is essential to recognize that the illness *affects* the family, school, workplace and community in which the person lives.

When Do Eating Disorders Appear?

Eating disorders typically are first diagnosed between 10 to 20 years of age, with AN generally occurring appearing 13 to 17, and BN tending to emerge 15 to 19. However, developmental issues are probably more important than chronologic age, so they can occur in childhood through adulthood. That is, issues related to puberty (see research findings), autonomy, identity and relationships often seem to trigger the illness. Sheila MacLeod (MacLeod, 1987) noted that an eating disorder is actually "a last ditch effort" to gain control over feelings of low self-esteem and ineffectiveness that precede dieting by months to years.

Why Do Eating Disorders Develop?

The AED and NEDA websites have information on the causes of eating disorders beyond the scope of this article. Simply put, there is no single cause for an eating disorder. They are complex illnesses with multiple causes that require treatment across a number of domains. Eating disorders are better considered as "developmental" rather than "mental" problems. This acknowledges the depth and breadth of systems that are affected, and minimizes the stigma still associated with psychological disorders. As NEDA notes "Eating Disorders Are Illnesses, *Not* Choices". Dr. Jean Kilbourne, author of *Can't Buy My Love: How Advertising Changes the Way We Think and Feel* (2000) addresses the powerful influence of advertising, but notes that media and marketing are not the sole causes of eating disorders.

How to Prevent and Treat Eating Disorders?

The AED and NEDA websites provide more detailed information on this important topic. The basic principles of prevention cited by NEDA include: 1) eating disorders are serious and complex problems that should not be simplified as "anorexia is just a plea for attention," or "bulimia is just an addiction to food". Eating disorders arise from a variety of physical, emotional, social, and familial issues, all of which need to be addressed for effective prevention and treatment; 2) eating disorders should not be framed as a "woman's problem" or "something for the girls"; 3) prevention efforts will fail, or encourage disordered eating, if they concentrate solely on warning the public about the signs, symptoms, and dangers of eating disorders. Efforts should address: a) our cultural obsession with slenderness as a physical, psychological, and moral issue, b) stereotypic gender roles, and c) developing self-esteem and self-respect in a variety of areas (school, work, community service, hobbies) that transcend physical appearance. In her book, *I'm Like, SO Fat!*, Dr. Dianne Neumark-Sztainer (2004) notes that prevention messages should be directed not only at eating disorders, or the more common concern of obesity. She argues for a positive approach emphasizing the benefits of healthy eating and physical activity

Once an eating disorder occurs, holistic treatment is necessary by professionals addressing the medical,

nutritional, and psychosocial needs of the adolescent and the family. Therefore, a team approach is generally used. Newer evidence refutes previously held beliefs about parents being the cause of eating disorders and research now shows that parents have an essential role in helping their teenager restore weight, as the first step toward recovery. Two books for consumers about the positive role of parents in treatment are the internationally acclaimed *Help Your Teenager Beat An Eating Disorder* (Lock & leGrange, 2004) and *A Stranger At The Table* (Haltom, C 2004) written by a practicing psychologist in Ithaca, NY. For professionals, a recently published (www.psych.org/psych_pract/treatg/pg/EatingDisorders3ePG_04-28-06.pdf) guideline for eating disorders details treatment principles. Medications like Prozac® can be helpful to treat the binge eating and vomiting associated with BN, but the most important "medicine" is healthy eating balanced with enjoyable exercise. Treatment may need to continue for two years or more.

Recent and Emerging Research

Recent studies have increased our understanding of why and when eating disorders tend to emerge as they do. First, international, multi-center studies suggest that genetic factors play a role in the development of AN more than BN (Bulik, et al 2005, Bacanu et al 2005). However, genes do not simply cause eating disorders. Instead, the increased risk appears to be related to a vulnerability to depression and/or anxiety, for which genetic factors are widely accepted (Kaye et al 2004). This should not be interpreted as parents who have a personal or family history of depression or anxiety "giving" their child an eating disorder, nor as the inevitability of developing an eating disorder if a person is depressed or anxious. Genetic studies are extremely complex and require large numbers of subjects. We are recruiting study subjects for an international genetic study of patients with eating disorders with a blood-relative (other than an identical twin or parent) who has, or has had, an eating disorder. Persons who might be interested in this study can contact Dr. Kreipe by telephone at 585-275-7844; or by email at richard_kreipe@urmc.rochester.edu) for further information.

Second, Dr. Kelly Klump's group has found evidence that genes are expressed differently in girls who are early in puberty compared to those who are more physically mature (Klump et al 2006), and hypothesize that the female brain begins to respond to hormones at puberty and that estrogen activates the genes contributing to disordered eating in vulnerable girls. Finally, this hypothesis is based on recent findings that genes, though fixed at birth, vary in their expression, depending on complex environmental factors (Bulik 2005). Thus, both the why and when of eating disorders appear to be linked as biological factors which interact with environmental influences, in a classic ecological dynamic. This exciting line of research will undoubtedly continue to enlighten our approach to eating disorders.

Closely related to these recent studies is emerging research focused on imaging brain function for patients with eating disorders. The most promising technique in this regard is functional magnetic resonance imaging (*f*MRI), which localizes brain activity in anatomically distinct areas of the brain, including activity associated with specific neurotransmitters, such as serotonin (Kaye et al 2005). Studies using *f*MRI to detail brain activity associated with specific behaviors and symptoms are underway, and in combination with genetic studies, will help improve the treatment of these conditions.

Comprehensive Care Centers for Eating Disorders (CCCED)

Based on legislation spearheaded by New York State (NYS), Senator Joseph Bruno, and funding from the NYS Department of Health, three CCCEDs have been established to develop an integrated system of care that will assure access to consistent, evidence-based treatment through a network of professionals. In addition this legislation will fund community outreach, education of consumers and professionals, and multi-center research to determine the effectiveness of various treatments for eating disorders.

For more information visit:

www.health.state.ny.us/diseases/chronic/eating_disorders.htm

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The Center of Excellence invites you to visit the ACT for Youth website where additional copies of this newsletter and many other youth development resources are available.

www.actforyouth.net

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