CE Part 1
2.0 contact hours

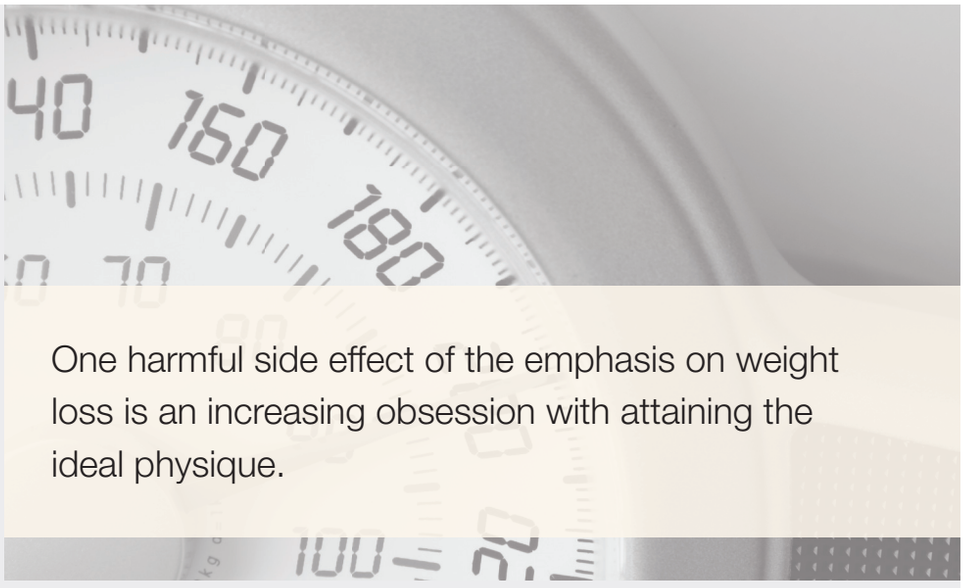
By Kimberly Hepworth

Eating Disorders Today —Not *Just* a Girl Thing

Kimberly Hepworth, MSN, RN, is a Family Nurse Practitioner specializing in orthopedics. She is also a former high school, middle school, and elementary school teacher. She lives with her family in Reno, Nevada.

Abstract: *Most people envision eating disorders occurring in young women with anorexia or bulimia. Today, disordered eating is increasingly prevalent in males and in every age group, along with new terms: binge eating, bigorexia, orthorexia, and diabulimia. Healthcare providers aware of and knowledgeable about eating disorders, signs and symptoms, risk factors, and treatment are better able to screen patients, assist them in receiving help earlier, and increase the likelihood of successful outcomes.*

Keywords: *bigorexia, binge eating, diabulimia, eating disorders, health screening, orthorexia*



One harmful side effect of the emphasis on weight loss is an increasing obsession with attaining the ideal physique.

Chris was teased about size and shape in middle and high school. After much prayer and many diets, Chris began exercising compulsively and was unwilling to stop even when injured. Chris also started abusing laxatives and weight loss supplements to control weight, which led to unattractive hair loss and skin changes. But Chris didn't care as long as the weight didn't return.

Heavy for years, Taylor tried dieting but was never able to lose and keep the weight off. Dieting and calorie restrictions were followed by episodes of binge eating in which Taylor would secretly consume thousands of calories in a single setting. Taylor tried to hide the shameful eating from family members, but could not hide the increasing weight.

Each of these individuals has a common story among patients with eating disorders, but each of these people is not the stereotypical bulimic or anorexic. Chris is a 54-year-old going through a divorce; Taylor is a 10-year-old boy.

PREVALENCE

The obesity epidemic in America has led to nationwide concern with reducing body fat and seeking new and improved ways to lose weight. Healthy eating and exercise are important for health, but one harmful side effect of the emphasis on weight loss is an increasing obsession with attaining the ideal physique. However, cultural obsession with slenderness as a physical, psychological, and even moral issue can lead to disordered eating patterns.

Eating disorders are common in the United States, affecting people in nearly every age group and ethnicity. The peak onset of eating disorders occurs during puberty and the late teen/early adult years, but symptoms can occur as young as age 5 or 6, or in middle to older adulthood. It is estimated that 10 million American women and 1 million American men have bulimia or anorexia, with millions more suffering from other disorders (National Eating Disorders Association [NEDA], 2010a). The previously accepted prevalence of anorexia and bulimia patients who were male was 10% to 15% (Anderson, 1995). More recently, Harvard University's McLean Hospital researchers conducted a study of 3,000 men and women and found that the percentage of males with eating disorders was significantly higher; 25% of participants with anorexia or bulimia and 40% with binge eating disorders were males (Harris & Cumella, 2006). Additionally, new terms such as bigorexia, orthorexia, and diabulimia are entering the discussion on disordered eating.

HEALTH CONCERNS

Anorexics can suffer nutritional deficiencies, weakened immune system, gastrointestinal tract disorders, lowered metabolism, dry skin, hair loss, amenorrhea, infertility, hirsutism, damage to organs, loss of concentration, osteoporosis, and death. Bulimia can cause nutritional deficiencies, esophageal tears, tooth enamel erosion, gum recession, acid reflux, osteoporosis, dehydration, hypokalemia, heart damage, and death. Binge eating can lead to obesity and problems associated with being overweight, including diabetes, heart disease, joint problems, certain cancers, and premature death (NEDA, 2010b).

Anorexia has the highest mortality of any mental disorder. Five percent to 10% die within 10 years after developing the disease; 18% to 25% will die within 20 years; only 30% to 40% fully recover. Twenty percent of all anorexics will die prematurely from complications related to their eating disorder (Birmingham, Su, Hlynsky, Goldner, & Gao, 2006).

Those with eating disorders suffer emotionally, psychologically, and spiritually as well as physically. Sadness, depression, obsessive–compulsive thinking, and negative and distorted self-image (sometimes to the point of being delusional) are common (NEDA, 2010a).

WHO'S AT RISK?

Healthcare providers need to be aware of the general indications of disordered eating, along with the risk factors that can predispose patients to developing eating disorders. Whether male or female, young or middle aged, patients with eating disorders share certain traits that make them more vulnerable to developing obsessive–compulsive behaviors and patterns of disordered eating.

Many eating disorder patients have perfectionist tendencies coupled with low self-esteem. They focus on body image and strive to gain control over eating to attain a cultural version of beauty nearly impossible to achieve. Many who develop eating disorders start with normal dieting to lose weight. However, 35% of normal dieters move to pathological dieting with unhealthy eating behaviors, and 20% to 25% of those will develop an eating disorder (Covey, 2009). Table 1 offers the most common signs of an eating disorder, and Table 2 lists factors that contribute to an eating disorder.

Healthcare providers aware of eating disorder risk factors can utilize

screening tools to help them identify patients who need further investigation and possible treatment. One simple tool is the SCOFF questionnaire (Morgan, Reid, & Lacey, 2000). The SCOFF questionnaire (**S**ick, **C**ontrol, **O**ne, **F**at, **F**ood) asks about purging, loss of control over eating, weight loss, feeling fat when others say you are too thin, and if food dominates the person's life. The Eating Attitudes Test (EAT-26) is an example of a more extensive eating disorders questionnaire (Garner, Olmsted, Bohr, & Garfinkel, 1982). Patients who test high for eating disorders should be referred to eating disorder specialists for further testing and possible treatment.

Eating disorders are complex conditions that can arise from a variety of potential causes and in various populations:

Females: The majority of eating disorder patients are female. It is not known exactly why females are at greater risk for developing eating disorders, but one theory suggests that females are judged by their physical appearance more than males so females are more critical of their bodies and more likely to experience discontent with their weight than males (Bearman, Martinez, Stice, & Presenell, 2006). African American girls may be especially vulnerable to developing eating disorders with binge eating features (Striegel-Moore et al., 2000). Anorexia nervosa remains the most common eating disorder in young females, considered a serious, potentially life-threatening disorder characterized by self-starvation and excessive weight loss. The other common disorder, bulimia nervosa, also a serious, potentially life-threatening disorder, is characterized by a cycle of bingeing and compensatory behaviors such as self-induced vomiting to undo or compensate for the effects of eating (NEDA, 2010a).

The current trend toward female thinness is thought to be obtainable by only 5% of the population. In the mid 1990s, female models had a 23% lower body mass index (BMI) than the normal-weight female population, as opposed to having a 4% lower BMI than the average-weight female in the mid-20th century (Fox, 1997). Recently, in adolescent females 25% report they are fat even though only 11% are actually overweight; 50% diet to lose weight, 25% report binge eating, and over 50% use unhealthy behaviors to try and control weight (Hautala et al., 2008).

Children: The female obsession with thinness is striking in girls at younger ages. According to one study, over 80% of 10-year-old girls have been on at least one diet (Henry, 2007). This obsession crosses national boundaries. A Swedish study reported that 25% of 7-year-olds had dieted to lose weight, whereas a Japanese study found that 41% of elementary girls considered themselves overweight (Fox, 1997). In Melbourne, Australia, a treatment center reported it has become increasingly common for preadolescent girls as young as 10 to be admitted for inpatient treatment of eating disorders (Henry, 2007).

Table 1: Signs of an Eating Disorder

	Losing an excessive amount of weight
	Skipping meals or following a highly restrictive diet
	Embarrassed about eating or must eat alone
	Regularly going into the bathroom immediately after a meal
	Exercising obsessively
	Using laxatives or diuretics without a medical necessity
	Becoming overly concerned about appearance, weight, body size, and/or food
	Decreasing social contact with friends and family, prefers to be alone

Source: NEDA (2004, 2010a).

Table 2: Factors That Contribute to Eating Disorders

	Low self-esteem
	Feelings of inadequacy or lack of control
	Depression, anxiety, anger, or loneliness
	Perfectionist tendencies
	Troubled personal relationships
	Difficulty expressing emotions, passive aggressive personality
	One or more stressful life events in the last 2 years
	History of being teased or ridiculed based on size or weight
	Dieting before age 14
	History of physical or sexual abuse
	Cultural, peer, or family pressures that glorify obtaining the "perfect body"
	Narrow definitions of beauty that include only women/men of specific weight or shape
	Cultural norms that value people on the basis of physical appearance
	Possible biochemical or biological causes (under research)
	Eating disorders often run in families

Source: NEDA (2004, 2010a).

Maintaining a healthy weight in childhood is necessary to help prevent onset of diabetes and heart disease. But too much emphasis on body fat in younger children appears to increase the likelihood of developing eating disorders. Children who begin dieting before age 14 increase their risk of developing an eating disorder by eight times (Cumella, 2003).

Healthcare providers suspicious of eating disorders in children and adolescent patients will want to pursue diagnosis and treatment with vigor, as proper nutrition is crucial for optimal growth and development. Eating disorders that lead to malnutrition can cause permanently stunted growth and bone loss; the heart, brain, uterus, ovaries, and kidneys can decrease in size (National Institute of Mental Health, 2008). Malnutrition from anorexia can cause abnormal liver enzyme levels, leading to liver damage (Pascoli, Lion, Milazzo, & Caregaro, 2004). Children with disordered eating need to receive aggressive treatment to prevent serious and potentially permanent damage to their health.

Males: Males are becoming increasingly concerned with body image (Cumella, 2003). Elementary and middle school males report dissatisfaction with their bodies similar to that reported by same-age females. One in four preadolescent cases of anorexia occurs in boys, and binge eating disorder affects females and males almost equally. Boys with eating disorders have similar signs and symptoms to girls, but boys are less likely to be correctly diagnosed because many clinicians still believe that eating disorders affect only females (Esch & Zullig, 2008).

Although females almost universally express a desire to be thinner, normal-weight males express dissatisfaction with their bodies whether too thin or too fat. If boys are teased about their body, there is a higher likelihood of developing disordered eating (Cumella, 2003). Males with body image disturbances are less likely to become bulimic or anorexic than females, but are more likely to become compulsive overexercisers, to abuse muscle enhancing or weight loss supplements, and may resort to steroid use in their efforts to achieve the masculine ideal of physical beauty (Leone, Sedory, & Gray, 2005).

Males who are involved in sports or activities that place emphasis on physical appearance are more likely to develop eating disorders, such as wrestlers, boxers, swimmers, gymnasts, dancers, and performers. Homosexual males are more likely to have eating disorders than heterosexual males, whereas lesbians are less likely (Fox, 1997).

Middle Age: Researchers and treatment centers have noticed a substantial increase in the number of middle-aged people diagnosed with eating disorders. Stressful midlife changes such as divorce, death of parents or siblings, empty-nest syndrome, and normal aging lead some to become overly concerned with body image. Like adolescence, middle age can be a vulnerable time. Desiring to remain physically attractive and gain control over an aging body, middle-aged patients develop the same type of eating disorders that younger people do (Epstein, 2009; Harris & Cumella, 2006).

EATING DISORDERS TODAY

The landscape of eating disorders has changed from concern about anorexia and bulimia in young females to an array of disordered eating across both sexes and all age groups. What are other common but less known eating disorders?

Binge eating disorder or BED is the most common eating disorder in both sexes, affecting an estimated 3% of the population (Weight-Control Information Network [WIN], 2008). It is the most common eating disorder in males (Elliott, 2007), although it is slightly more common in females than in males (WIN). BED is characterized by recurrent binge eating without the regular use of compensatory measures (purging, fasting, excessive exercise) (NEDA, 2010b). The American Psychiatric Association's (2000) diagnostic criteria for binge eating include recurring episodes (at least 2 days a week for 6 months or longer) of eating a larger amount of food than most people would eat in a similar setting and time frame, and a feeling of lack of control over eating. Binge episodes are associated with eating more rapidly than usual, until uncomfortably full, large amounts when not hungry, alone due to embarrassment; and feeling self-disgust, depressed, and/or overly guilty after overeating. Typically binge eaters have noticeable weight gain.

Bigorexia: The masculine ideal of large muscles has led to a newly coined term, *bigorexia* or *muscle dysmorphia*, a specific type of body dysmorphic disorder. Bigorexics become obsessed with developing muscles and will compulsively exercise, lift weights, and overuse protein powders and muscle enhancing supplements. No matter how large they get, bigorexics feel they are too small. Many had late onset of puberty. Anabolic steroid and other substance use are common, as are suicide attempts.

How do you distinguish between healthy body builders and bigorexics? This can be difficult but those with muscle dysmorphia tend to frequently compare themselves with others. They constantly examine themselves in a mirror and hate their reflections, having the delusion they are underweight or below average in musculature. Bigorexics are distressed if they miss a workout session or one of many protein meals a day, and they neglect relationships due to excessive

Web Resources

- National Eating Disorders Association—http://www.nationaleatingdisorders.org
- Eating Disorder Referral and Information Center—http://www.edreferral.com
- Academy for Eating Disorders—http://www.aedweb.org

People with eating disorders are attempting to compensate for overwhelming feelings and emotions.

exercising. In extreme cases, some inject appendages with fluid such as synthol (Leone et al., 2005; Pope et al., 2005).

Diabulimia: Although not officially recognized as a medical disorder, diabulimia is restricting insulin in Type 1 diabetes for weight loss purposes. This phenomenon has been documented in the research literature since the late 1980s, but only recently covered in the popular press. Type 1 diabetic women are two and a half times more likely to develop an eating disorder than other women, thought to be related to the need for careful calorie counting and restriction. When Type 1 diabetics develop disordered eating, many turn to restricting their prescribed insulin to lose weight. Diabulimia can range from an infrequent practice to an uncontrollable phenomenon that puts the patient at extreme risk. It is a very difficult problem to overcome because of the added complexities of glucose management (Flora, 2008).

About 30% of diabetic women use insulin restriction for weight loss purposes at some point. There are no long-term data on treatment outcomes of women with diabulimia or statistics on how many men may be suffering from this condition (Flora, 2008; NEDA, 2010a).

Orthorexia: Although not an officially recognized disorder, orthorexia nervosa (literally "fixation on righteous eating") is characterized by obsession with healthy eating. Coined by physician Steven Bratman, orthorexia is not about being thin, losing weight, or appearance; it is about the purity and healthiness of what is eaten. Orthorexics become consumed with food quality and a constant search for ways food is *un*healthy (chemicals, fat, and wrong nutrients). Every day is consumed with eating "right," being "good," and self-punishment and loathing if something "bad" is eaten (stricter eating, fasts, exercise). Self-esteem becomes wrapped up in the purity of the diet. Orthorexics often feel superior to others, especially in regard to food intake, and have difficulty eating food prepared by others. Despite a strict diet, they can never eat "right." They have little room in life for anything other than managing food intake, so often they are lonely and isolated.

Following a healthy diet does not mean someone is orthorexic. Eating healthfully is good unless food takes up an inordinate amount of time and attention, deviating from the health food diet is met with guilt and self-loathing, and/or food is used to control or avoid life issues (Kratina, 2006).

A SAFE ENVIRONMENT

Patients with an eating disorder report feeling deeply ashamed of their eating behaviors. Self-critical already, they go to great lengths to hide their problem and will not readily report disordered eating unless they feel they are in a safe, nonjudgmental environment. Patient privacy must be protected, and it is crucial for healthcare providers to ensure the patient feels disclosure will not lead to increased shame or ridicule.

Eating disorders are still considered primarily a female problem, making it even more difficult for males to report disordered eating behaviors. Patient education about eating disorders can help. If male patients understand they are not alone in having body image disturbances and disordered eating, they will be more likely to disclose their problem to a healthcare provider and be willing to accept treatment (Cumella, 2003).

Patient education pamphlets regarding body image disturbances and eating disorders should be readily available to patients in all clinical settings. If screening questions regarding eating behaviors and body image are included in the general health questionnaire completed by patients, providers will be better able to recognize possible eating disorder patients.

TREATMENT

All eating disorders require professional help (NEDA, 2010a), and are best treated using several approaches simultaneously. People with eating disorders are attempting to compensate for overwhelming feelings and emotions; treatments involve psychotherapy with the goal of retraining to cease overwhelming negative thinking and learn to think about problem solving in beneficial ways, and dealing with interpersonal relationships. If an eating disorder is severe, the patient may need hospitalization to restore a healthy enough weight to take part in therapy. Treatment can be on inpatient or outpatient basis, depending on the severity of the disease. Options include individual, group, and family counseling; nutritional counseling; exercise therapy; and antidepressant medications (American Psychiatric Association Work Group on Eating Disorders, 2000).

From a Christian perspective, solutions to disordered eating involve God and spiritual approaches. Often, those with eating disorders have an

incorrect perception of their worth to God and suffer from identity confusion (Eberly, 2005). Understanding how God values us can help correct erroneous self-perception (Genesis 1:26; Psalm 139; John 3:16). For the Christian, recognizing that God is in control of our lives, not the person or the eating disorder, contributes to healing (Romans 8).

Another significant spiritual issue is hiding the truth about eating habits, walking in the darkness of secrets and shame (Eberly, 2005). A Christian approach explores bringing the darkness into light, confessing and turning away from what binds us, and living truthfully (1 John 1:5-10). Marian Eberly, former director of patient care at Remuda Ranch, points out, "When we come to Jesus Christ, laying down our pain and surrendering our shame, God honors us with the promise of a fresh start, a new heart with right desires and a new beginning (Ezekiel 36:26). God promises to replace the desire to binge, purge, and restrict. This is not easy or instantaneous, but a protracted process that nonetheless includes God at every step" (2005, pp. 16-17). Using Scripture, counseling, and prayer, patients come to understand they are loved by God for who they are, rather than for their appearance, and they do not need to harm or change themselves to be worthy of love.

Inpatient treatments for eating disorders cost between $500 and $2,000 per day. Eating disorder patients can require between 3 and 6 months of inpatient care, costing $50,000 to $180,000. Outpatient treatment can cost over $100,000 with counseling, group therapy, medical monitoring, and medication costs. Health insurance providers have different policies on covering the cost of treatment, but more insurance providers today are assisting with payment than in earlier decades. Sadly, 90% of people with eating disorders do not receive treatment (Berkman, 2007). Christian counselors specializing in eating disorders are found in most major cities, and there are a number of inpatient and outpatient centers across the country offering a Christian approach to treatment (Mahoney, 2009).

RECOGNITION IS KEY

To provide the best care possible to their patients, providers need to recognize that eating disorders can be found in the 46-year-old man who is losing his hair and recently lost his job, the 9-year-old girl who has been teased about her chubby thighs, the 17-year-old star of the wrestling team, and the 68-year-old woman whose sister just died—as well as the extremely thin 20-year-old college girl who doesn't want to eat because she wants to fit into size 00 jeans.

American Psychiatric Association. (2000). *Diagnostic and Statistical Manual of Mental Disorders DSM-IV-TR* (4th ed., text revision). Arlington, VA: Author.

American Psychiatric Association Work Group on Eating Disorders. (2000). Practice guidelines for the treatment of patients with eating disorders (revision). *American Journal of Psychiatry, 157*(Suppl. 1), 1-39.

Anderson, A. (1995). Eating disorders in males. In K. D. Brownell & C. G. Fairburn (Eds.), *Eating disorders and obesity: A comprehensive handbook* (pp. 177-187). New York: Guilford Press.

Bearman, S., Martinez, E., Stice, E., & Presenell, K. (2006). The skinny on body dissatisfaction: A longitudinal study of adolescent girls and boys. *Journal of Youth and Adolescence, 35,* 217-229.

Berkman, N. (2007). The RTI International University of North Carolina at Chapel Hill Evidence-Based Practice Center meta-analysis of efficacy of various treatments for eating disorders. *International Journal of Eating Disorders, 40*, 293-309.

Birmingham, C., Su, J., Hlynsky, J., Goldner, E., & Gao, M. (2005). The mortality rate of anorexia nervosa. *International Journal of Eating Disorder, 38,* 143-146.

Covey, A. (2009). *Dieting as a precursor to eating disorder.* Retrieved March 9, 2009, from http://www.edreferral.com/Articles/Dieting_as_a_Precursor.htm

Cumella, E. (2003). Examining eating disorders in males. *Behavioral Health Management, 23*(4), 38-41.

Eberly, M. (2005). It's not about food: Getting to the heart of eating disorders. *Journal of Christian Nursing, 22*(2), 15-19.

Elliott, K. D. (2007). Understanding binge eating disorder in men. *Third Age*. Retrieved March 24, 2009, from http://www.thirdage.com/print/40189

Epstein, R. H. (July 13, 2009). When eating disorders strike in midlife. *The New York Times.* Retrieved February 26, 2010, from http://health.nytimes.com/ref/health/healthguide/esn-eating-disorders-ess.html

Esch, L., & Zullig, K. (2008). Middle school students' weight perceptions, dieting behaviors, and life satisfaction. *Journal of Health Education, 39*, 345-352.

Flora, C. (July 1, 2008). The danger of diabulimia. *Psychology Today.* Retrieved March 1, 2010, from http://www.psychologytoday.com/articles/200807/the-danger-diabulimia

Fox, K. (1997). Mirror mirror—A summary of research findings on body image. *Social Issues Research Centre*. Retrieved April 15, 2009, from http://www.sirc.org/publik/mirror.html

Garner, D., Olmsted, M., Bohr, Y., & Garfinkel, P. (1982). The Eating Attitudes Test: Psychometric features and clinical correlates. *Psychological Medicine, 12*, 871-878.

Harris, M., & Cumella, E. (2006). Eating disorders across the life span. *Journal of Psychosocial Nursing, 44*(4), 21-26.

Hautala, L., Junnila, J., Helenius, H., Vaananen, A., Liuksila, P., Raiha, H., et al. (2008). Towards understanding gender differences in disordered eating among adolescents. *Journal of Clinical Nursing, 17*, 1803-1813.

Henry, L. (2007). Even kids are suffering from anorexia and bulimia. Retrieved March 9, 2009, from http://eatingdisorders.suite101.com/article.cfm/eating_disorders_in_children

Kratina, K. (2006). *Orthorexia nervosa*. Retrieved March 3, 2010, from http://www.nationaleatingdisorders.org/uploads/file/Orthorexia%20Nervosa.pdf

Leone, J. E., Sedory, E. J., & Gray, K. A. (2005). Recognition and treatment of muscle dysmorphia and related body image disorders. *Journal of Athletic Training, 40*(4), 352-359.

Mahoney, K. (2009). What you need to know about Christian teens and eating disorders. Retrieved March 16, 2009, from http://christianteens.about.com/od/advice/a/eatingdisorders.htm

Morgan, J., Reid, F., & Lacey, H. (2000). The SCOFF questionnaire: A new screening tool for eating disorders. *Western Journal of Medicine, 172*, 164-165.

National Eating Disorders Association. (2004). *Factors That May Contribute to Eating Disorders*. Retrieved March 3, 2010, from http://www.nationaleatingdisorders.org/uploads/file/information-resources/Factors%20that%20may%20Contribute%20to%20Eating%20Disorders.pdf

National Eating Disorders Association. (2010a). *Learn basic terms and information on a variety of eating disorder topics*. Retrieved February 26, 2010, from http://www.nationaleating disorders.org/information-resources/general-information.php#facts-statistics

National Eating Disorders Association. (2010b). *Terms and definitions: Binge eating disorder*. Retrieved February 26, 2010, from http://www.nationaleatingdisorders.org/information-resources/general-information.php#causes-eating-disorders

National Institute of Mental Health. (2008). *The numbers count. Mental disorders in America*. Retrieved April 3, 2009, from http://www.nimh.nih.gov/health/publications/the-numbers-count-mental-disorders-in-america/index.shtml#Eating

Pascoli, L., Lion, A., Milazzo, D., & Caregaro, L. (2004). Acute liver damage in anorexia nervosa. *The International Journal of Eating Disorders, 36*(1), 114-117.

Pope, C. G., Pope, H. G., Menard, W., Fay, C., Olivardia, R., & Phillips, K. A. (December, 2005). Clinical features of muscle dysmorphia among males with body dysmorphic disorder. *Body Image, 2*(4), 395-400.

Striegel-Moore, R., Schreiber, G., Lo, A., Crawford, P., Obarzanek, E., & Rodin, J. (2000). Eating disorder symptoms in a cohort of 11 to 16-year-old black and white girls: The NHLBI growth and health study. *International Journal of Eating Disorders, 27*(1), 49-66.

Weight-Control Information Network. (2008). *Binge eating disorder*. Retrieved March 11, 2010, from http://win.niddk.nih.gov/publications/binge.htm.