

The Risks of Obesity, Weight Control Behaviors, and Disordered Eating to Adolescents¹

Emily Johnson and Kate Fogarty²

Overview

The 2013 national Youth Risk Behavior Survey indicates that among all U.S. high school students, 13.7 percent were obese and over 16.6 percent were overweight (Centers for Disease Control and Prevention, 2014). These rates have increased steadily since over the past 15 years. As a result, unhealthy weight-loss behaviors among adolescents are becoming more widespread (Pesa & Turner, 2001). In light of these changes, teens will benefit from learning healthy weight-control practices and avoiding the consequences of unhealthy behaviors. Common weight-control practices by adolescents can be either healthy (health-promoting behaviors) or risky (risk-taking behaviors) (Story, Neumark-Sztainer, Sherwood, Stang, & Murray, 1998). This publication addresses the consequences and risks associated with risky weight-control practices and discusses the prevalence of eating disorders and the role of body image in weight practices. The publication also provides references that can be used to help practitioners educate youth on the importance of setting realistic goals and enhancing body satisfaction.

Extreme Weight Control Behaviors (EWCB)

Risky weight-control practices, or disordered eating practices, can also be known as extreme weight control behaviors (EWCB).

Examples of extreme weight control behaviors (EWCB)

- laxative use (to speed up bowel movements)
- diet pills (such as appetite suppressants or fat-absorption inhibitors)
- skipping meals or fasting (going extended periods of time without eating)
- purging (vomiting after eating to rid body of food calories and content)

Health consequences associated with extreme weight control behaviors (EWCB) can include (Neumark-Sztainer et al. 1996)

- dry hair and skin; hair loss
- abnormally slow heart rate (associated with skipping meals)
- brittle and weak bones due to malnourishment
- tooth decay (associated with purging)
- mental impairment
- fatigue and feelings of overall weakness
- constipation and gastrointestinal problems (associated with the use of laxatives and diet pills)

1. This document is FCS3322, one of a series of the Department of Family, Youth & Community Sciences, UF/IFAS Extension. Original publication date September 2014. Visit the EDIS website at <http://edis.ifas.ufl.edu>.

2. Emily Johnson, MS, CHES, doctoral student, Department of Health Education and Behavior, College of Health & Human Performance; and Kate Fogarty, PhD, associate professor & youth development specialist, Department of Family, Youth & Community Sciences; UF/IFAS Extension, Gainesville, FL 32611.

Disordered Eating vs. Eating Disorder

In order to understand teens and EWCBs, two terms need to be compared. Some may wonder, “What is the difference between disordered eating and an eating disorder?” An eating disorder has more serious consequences, yet the consequences of disordered eating should not be ignored. The following table outlines the difference between the two terms and the behaviors which are associated with each.

Disordered Eating

- Irregular and inconsistent thoughts about food
- Wide range of irregular, abnormal eating patterns
- Can present anytime throughout life
- Rarely life-threatening and treated with non-intensive therapy
- Examples: skipping meals, habitual dieting

Eating Disorder

- Consistent and all-consuming preoccupation with food
- Persistent abnormal eating patterns
- Usually develop in adolescence (12-17 years)
- Life-threatening and requires immediate medical attention and intensive treatment
- Examples: anorexia nervosa, bulimia nervosa, binge-eating disorder (BED)
- See EDIS publications: “Warning Signs of Anorexia,” (<http://edis.ifas.ufl.edu/fm373>) and “Commonly Asked Questions: Bulimia Nervosa,” (<http://edis.ifas.ufl.edu/he905>).

(Source: **Disordered eating: Eichen, Connor, Daly, and Fauber, 2012; Eating disorder: Fan et al. 2010.**)

You may also wonder, “How common among teens (as well as adults) are eating disorders and EWCB?” The following chart and bullet points provide information on the percentages of lifetime risk prevalence of eating disorders and the attitudes and behaviors of preteens and teens around eating disorders (Merikangas et al., 2010).

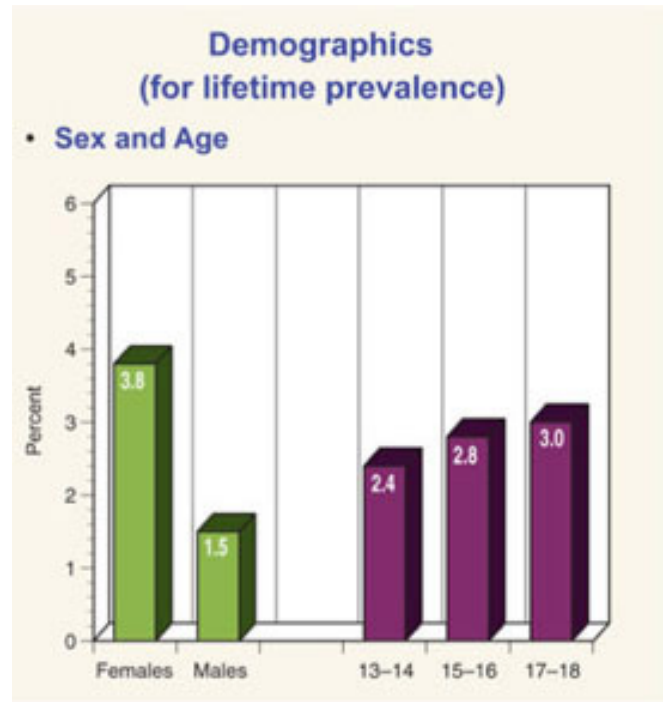


Figure 1. Numbers and Percentages

- The green bars indicate the sex differences for lifetime prevalence of eating disorders: 3.8 percent of females and 1.5 percent of males are diagnosed with an eating disorder in their lifetime.
- The purple bars indicate the age in which the majority of eating disorders are diagnosed. Three percent of all eating disorders present between 17–18 years, 2.8 percent present between 15–16 years, and 2.4 percent present between 12–14 years.

Lifetime Prevalence of Eating Disorders

- Fifty percent of girls use unhealthy weight-control behaviors such as skipping meals, fasting, smoking, vomiting, and taking laxatives.
- Teens are 12 times more likely to binge eat if they diet frequently.
- Twenty-five percent of pathological dieters progress to a full-blown eating disorder.
- Nearly 20 million women will suffer from an eating disorder at some point in their life.
- Females aged 15–24 with anorexia nervosa are 12 times more likely to die from the illness than from all other causes of death.
- Anorexia nervosa has the highest mortality rate of any mental illness.

- Approximately 81 percent of 10 year olds report that they are afraid of being fat and 90 percent of girls age 15–17 want to change at least one part of their physical appearance (Heart of Leadership, 2011).

Immediate and Long-Term Effects of Obesity in Childhood and Adolescence

Childhood and adolescent obesity and weight concerns have both short- and long-term effects on physical health and psychological well-being, including mental disorders (National Eating Disorder Association, n.d.). Adolescents engaging in unhealthy weight-control behaviors are at a nearly three times greater risk for being overweight and at a higher risk for engaging in binge eating and other extreme weight-control behaviors (Carpenter, Hasin, Allison, & Faith, 2000). Adolescents who struggle with weight, or are obese or overweight, are also more likely to be obese as adults (Neumark-Sztainer, Story, Dixon, & Murray, 2006; Freedman et al., 2005). In 2008 the medical care costs associated with obesity (at all ages) were about \$147 billion (Finkelstein, Trogdon, Cohen, & Dietz, 2009).

Associated Risks

In addition to the physical risks associated with obesity, EWCB, and eating disorders, psychological and behavioral complications also can emerge:

Psychological: Seeing oneself as overweight and/or engaging in disordered eating is strongly linked with teens' depression, having low self-esteem and feelings of low self-worth, self-harming behavior, and suicide.

Behavioral: Preoccupation with weight and unhealthy weight-control behaviors can lead to other problem behaviors including smoking (NIH, 1998), early initiation of alcohol and drug use (Rafiroiu et al., 2003), risky sexual behaviors (Esch & Zullig, 2008; Averett, Corman, & Reichman, 2010) and mood disorders (Cook, MacPherson, & Langille, 2007). The outcomes of such behaviors are costly to a teen's life and relationships with others as well as to their community in terms of health care costs; therefore, it is of relevant concern that efforts are made to address these problems.

Social Comparison: Attitudes Which Influence Eating Disorder Behaviors

Social comparison helps explain how media images and peer messages might influence how teens perceive and accept their bodies. Ultimately it may explain why teens are likely to use extreme weight control behaviors. According to the social comparison viewpoint, people process social information by coming up with a set of similarities and differences that they perceive about themselves in comparison to others (Kramer, Ingledew, & Iphofen, 2008). Social comparisons provide a way for adolescents to process and gather information about their social world and social acceptability. Knowing how social comparison works with teens can help us educate youth about the importance of making enhancement- rather than deficit-based comparisons. Enhancement comparisons are a positive way for youth to learn to de-value information that is not important to their self-image and to value positive aspects as they compare themselves with the strengths of others. Teaching teens to use enhancement comparisons can help increase their sense of self-worth and positive views about themselves.

Approaches for Practitioners: Teaching Teens Healthy Weight-Control Behaviors

Body dissatisfaction is a strong predictor of unhealthy weight-control practices. In order to decrease the use of EWCB, it is important to help teens both improve body image through use of enhancement comparisons and focus on learning to set realistic and attainable weight-loss goals. Because adolescents spend a good portion of their time in classrooms, health and physical education classes pose an optimal time to reinforce teens taking on positive and health-promoting behaviors. Not only should school personnel, including teachers and support staff, be prepared to educate students about the importance of healthy eating habits and weight-loss behaviors, but they also should be trained to recognize signs of body dissatisfaction, low self-esteem, and decreased mental health as risk factors for EWCB and eating disorders. Furthermore, staff and school personnel who work with teens should be aware of the associated risks that accompany the use of extreme weight control behaviors and have resources and interventions available to assist those students who are in need.

Conclusion

Parents should learn to recognize signs of EWCB and eating disorders and understand the difference between the two. Parents, teachers, and other youth professionals should be prepared to talk about the risks associated with unhealthy weight control practices with their children or the youth they work with. They also should be prepared to refer their children to support services, whether it be with a nutritionist, mental health professional or counselor, or a pediatrician or other medical doctor.

Given the proportion of obese teens and obesity's linkage with EWCBs, as well as the prevalence of disordered eating behaviors and the number of teens affected by eating disorders, fostering healthy eating with levels of physical activity and a positive sense of body image needs to be a top priority for both parents and practitioners (see EDIS publication "Improving Your Body Image: Tips for Individuals, Families, and Professionals," <http://edis.ifas.ufl.edu/fy854>). The emphasis on thinness and physical appearance in society should be challenged, and educators can prepare students to be conscious consumers of media. Challenging society's unrealistic standards can be particularly important and can be applied to practice in numerous ways.

Noteworthy Resources for Those Who Work with Youth and Parents

- National Eating Disorder Association: <http://www.nationaleatingdisorders.org/>
- National Institute of Mental Health: <http://www.nimh.nih.gov/health/topics/eating-disorders/index.shtml>
- Mayo Clinic: <http://www.mayoclinic.org/diseases-conditions/eating-disorders/basics/definition/con-20033575>
- Search Institute: <http://www.search-institute.org/research/developmental-assets>
- MyPlate Nutrition Guidelines: <http://www.choosemyplate.gov/>

Trustworthy Resources for Youth

- Kids Health: <http://kidshealth.org/>
- Teens Health: <http://teenshealth.org/teen/>
- Now Foundation: <http://loveyourbody.nowfoundation.org/>
- Body Gossip: <http://www.bodygossip.org/>
- Help Guide Non-Profit: http://www.helpguide.org/topics/eating_disorders.htm

References

- Averett, S., Corman, H., & Reichman, N. (2010). "Effects of Overweight on Risky Sexual Behavior of Adolescent Girls." NBER Working Paper Series. <http://www.nber.org/papers/w16172>.
- Carpenter, K., Hasin, D., Allison, D., & Faith, M. (2000). "Relationships Between Obesity and DSM-IV Major Depressive Disorder, Suicide Ideation, and Suicide Attempts; Results from a General Population Study." *American Journal of Public Health, 90*(2), 251–257.
- Centers for Disease Control and Prevention. (2014). "Youth risk behavior surveillance—United States, 2013." *Morbidity and Mortality Weekly Report, 63* (4), pp. 155.
- Cook, S.J., MacPherson, K., & Langille, D. (2007). "Far From Ideal: Weight Perception, Weight Control, and Associated Risky Behaviour of Adolescent Girls in Nova Scotia." *Canadian Family Physician, 53*, 679–684.
- Eichen, D., Conner, B., Daly, B., & Fauber, R. (2012). "Weight Perception, Substance Use, and Disordered Eating Behaviors: Comparing Normal Weight and Overweight High-School Students." *Journal of Youth & Adolescence, 41*, 1–13.
- Esch, L. & Zullig, K. (2008). "Middle School Students' Weight Perceptions, Dieting Behaviors, and Life Satisfaction." *American Journal of Health Education, 39*(6), 345–361.
- Fan, Y., Li, Y., Liu, A., Hu, X., Ma, G., & Xu, G. (2010). "Associations between body mass index, weight control concerns and behaviors, and eating disorder symptoms among non-clinical Chinese adolescents." *BMC Public Health, 10*, 2–12.
- Freedman, D., Kettel Khan, L., Serdula, M., Dietz, W., Srinivasan, S., & Berenson, G. (2005). "The Relation of Childhood BMI to Adult Adiposity: The Bogalusa Heart Study." *Journal of the American Academy of Pediatrics, 115*(1), 21–28.
- French, S., Leffert, N., Story, M., Neumark-Sztainer, D., Hannan, P., & Benson, P. (2001). "Adolescent Binge/Purge and Weight Loss Behaviors: Associations with Developmental Assets." *Journal of Adolescent Health, 28*, 211–221.

- Finkelstein, E.A., Trogdon, J.G., Cohen, J.W., & Dietz, W. (2009). "Annual medical spending attributable to obesity: Payer- and service-specific estimates." *Health Affairs* 28(5), 822–831.
- Heart of Leadership. (2011). "Statistics on Body Image, Self Esteem & Parental Influence." <http://www.heartofleadership.org/statistics-on-body-image-self-esteem-parental-influence/>.
- Krayer, A., Ingledew, D.K., & Iphofen, R. (2008). "Social comparison and body image in adolescence: a grounded theory approach." *Health Education Research*, 23(5), 892–903.
- Merikangas, K., He, J., Burstein, M., Swanson, S., Avenevoli, S., Cui, C., Georgiades, K., & Swendsen, J., (2010). "Lifetime prevalence of mental disorders in U.S. adolescents: Results from the National Comorbidity Study-Adolescent Supplement (NCS-A)." *Journal of the American Academy of Child & Adolescent Psychiatry*, 49(10), 980–989.
- National Eating Disorder Association. (n.d.) "Get the Facts on Eating Disorders." <http://www.nationaleatingdisorders.org/get-facts-eating-disorders>.
- Neumark-Sztainer, D., Story, M., Dixon, L., & Murray, D. (1998). "Adolescents Engaging in Unhealthy Weight Control Behaviors: Are They at Risk for Other Health-Compromising Behaviors?" *American Journal of Public Health*, 88(6), 952–955.
- Neumark-Sztainer, D., Wall, M., Guo, J., Story, M., Haines, J., & Eisenberg, M. (2006). "Obesity, Disordered Eating, and Eating Disorders in a Longitudinal Study of Adolescents: How Do Dieters Fare 5 Years Later?" *Journal of the American Dietary Association*, 106, 559–568.
- NIH, NHLBI Obesity Education Initiative. (1998). "Clinical Guidelines on the Identification, Evaluation, and Treatment of Overweight and Obesity in Adults." http://www.nhlbi.nih.gov/guidelines/obesity/ob_gdlns.pdf.
- Pesa, J. & Turner, L. (2001). "Fruit and Vegetable Intake and Weight-Control Behaviors Among US Youth." *American Journal of Health Behavior*, 25(1), 3–9.
- Rafiroiu, A. C., Sargent, R., Parra-Medina, D., Drane, W., & Valois, R. (2003). "Covariations of Adolescent Weight-control, Health-risk and Health-promoting Behaviors." *American Journal of Health Behavior*, 27(1), 3–14.
- Story, M., Neumark-Sztainer, D., Sherwood, N., Stang, J., & Murray, D. (1998). "Dieting status and its relationship to eating and physical activity behavior in a representative sample of US adolescents." *Journal of the American Dietetic Association*, 98(10), 1127–1135.