Body Image and Health

Eating Disorders and Obesity

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KEYWORDS

• Obesity • Eating disorders • Binge eating • Anorexia nervosa • Bulimia nervosa • Hyperlipidemia • Diabetes • Disordered eating

KEY POINTS

- Eating behavior in adolescents can be as high risk a behavior for future health as other risk-taking behaviors and is related to developmental changes during puberty.
- Disordered eating can present as a wide range of behaviors and can result in being either underweight or overweight.
- It is essential for primary care providers to recognize the signs and symptoms of abnormal eating patterns early, screen for fluctuations in weight, and be familiar with the basics of management and referrals.
- In particular, using a multidisciplinary approach strongly predicts clinical response. The early involvement of mental health (as needed), nutrition, and social work colleagues can have an important impact on behavior change.

INTRODUCTION

Adolescence is a time of rapid changes in development, including body shape, behavior, and cognition. Although teen pregnancy, substance use, and mental health are the most significant risks to adolescent health, the 2 health behaviors that may have the largest overall impact on adult morbidity are changes in diet and physical activity that occur during adolescence. This impact can manifest as a spectrum of behaviors that range from extreme dieting, to unhealthy habits, to overeating. In extreme cases this can result in obesity and eating disorders such as anorexia nervosa and bulimia nervosa. Both ends of the weight spectrum can have serious health consequences such as heart disease, diabetes, bone loss, and infertility.

Changes in diet and activity that occur during adolescence can become some of the riskiest of adolescent behaviors and merit close monitoring by health professionals because of the impact on adult health. Prior work from Irwin and colleagues[1] indicates

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that high-risk behaviors tend to occur together and are influenced by biological, social, and psychological factors. Screening and intervening on adolescent eating behavior must take an approach that not only considers the behavior but the context in which it occurs, much like other high-risk behaviors such as unprotected sex and substance use. The psychosocial context of the behavior and the mental health sequelae that result can strongly influence the impact of the eating behavior on the adolescent.

This article presents a framework for screening and intervention in abnormal eating and activity patterns across the adolescent weight spectrum. Eating behavior and its associated psychological impact are at the core of adolescent malnutrition and obesity. Interventions that are designed to increase weight in undernourished teens, or reduce weight in obese teens, must address the behavior to facilitate change.

The care related to obese and malnourished adolescents is highlighted, but the concepts are also applicable to healthy-weight teens in primary care. How to take a nutrition and activity history and highlight the early warning signs of overeating and undereating is covered first, followed by the specifics of early identification, diagnosis, and treatment of obesity and eating disorders in teens.

Case Example

MS is a 12-year-old boy who presents to the clinic for a yearly physical and vaccines. He has no complaints. His mother stops his clinician in the hall and explains that she is concerned because he used to play sports in elementary school, but since he started middle school all he does is play video games and use the computer. His mother recently had a gastric bypass and is concerned about MS's weight. The family history is notable for obesity (mother and father), obstructive sleep apnea (maternal grandfather), and hypertension (father). His weight is 60 kg (132 lbs) and his height is 143 cm (56.2 inches).

ASSESSING EATING BEHAVIOR AND ACTIVITY IN ADOLESCENTS

An adolescent preventive health visit begins with measurement of the patient's height and weight and calculation of the body mass index (BMI).[2] The calculated BMI should be plotted on the growth chart and the percentile determined. Any BMI measurement should be interpreted in the context of prior measurements, in particular looking for large increases, or decreases, in a short period of time. Such changes can be a sign of the onset of unhealthy eating behavior. A preventive visit should also include a brief nutrition and physical activity assessment. **Box 1** summarizes the steps for how to approach the initial assessment for abnormal eating patterns, activity, and BMI in primary care.

Formal quantitative nutrition assessments, preferably by a registered dietician, may be the gold standard, but are not always realistic in primary care. These assessments typically include a food frequency questionnaire, food record, or detailed interview.[3] Instead, primary care providers (PCPs) can do a brief nutrition and activity screen that includes nutrition content, eating behavior, and activity.[4,5] This assessment can be done via interview or questionnaire. One example of a validated activity and nutrition assessment is the Block food frequency questionnaire.[6]

Providers often limit themselves to asking about dietary intake and do not screen for eating behavior. What an adolescent eats is inextricably linked to why, when, how, and with whom they eat. Eating behavior refers to a patient's routine for eating and can be grouped with activity as healthy, unhealthy, disordered, and extreme.[7–9] **Table 1** summarizes this framework with a modified list of the different types of adolescent eating behaviors proposed by Neumark-Sztainer and colleagues[7–9] at the University of Minnesota.