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Body image and eating problems among children and adolescents are becoming increasingly common. Anorexia nervosa affects 1 in every 200 girls and bulimia nervosa affects 3 to 5 percent of girls and young women. The prevalence of partial-syndrome eating disorders is much higher than these fully diagnosed clinical disorders, affecting 10 to 20 percent of girls and women, although these estimates may be inaccurate because of the very secretive nature of these disorders. Disordered eating behaviors—including at least one of the following: fasting, skipping meals to lose weight, diet pills, vomiting, laxatives, smoking cigarettes, and binge eating—were recently reported by a staggering 56 percent of ninth-grade females and 28 percent of ninth-grade males. Reports of dieting, fear of fatness, body image concerns, and weight loss attempts, as well as cases of more serious eating disorders, have been documented in children as young as 7 years old.

Recent studies confirm that whereas body image and eating problems have been consistently more common among girls and young women, boys and young men are increasingly reporting these problems. Young male adolescents are known to be concerned with their body size and shape, and they undertake weight control and weight gain behaviors (e.g., steroid abuse) that may be hazardous to their health.

Clearly, body image concerns, weight loss behaviors, and eating problems pose a serious and increasing threat to the short- and long-term physical, psychological, and social health of children and adolescents.

Relationship of child overweight to body image and eating disturbances

Further to the increase in body image and eating problems among children and adolescents is the concurrent increase in child overweight, which has more than doubled in the United States over the past 30 years. Because overweight, perceived overweight, and weight concerns are known to precede dieting, hazardous weight loss behaviors, and eating disturbances, the current trend toward the co-occurrence of increasing eating disorders and increasing child overweight is very concerning. It is probable that the increasing rates of child overweight may be one of the factors that have resulted in more dieting and weight loss attempts among young people. Hence, the two trends could be expected to continue. Furthermore, it appears that children and adolescents who use these extreme weight loss attempts only serve to perpetuate the futile cycle of dieting, purging, binge eating, and further weight gain. The phenomenon of weight rebound following dietary restriction has been previously observed in many adult studies and in animal experiments, in which initial dietary restraint or weight loss precedes future weight gain. In a recent large, well-designed, longitudinal study spanning 4 years, Stice and his colleagues found that among high school girls of various weights, those who tried extreme methods to lose weight were the most likely to gain weight over time and were therefore at greater risk for obesity. Girls who used more extreme weight loss methods such as laxatives, appetite suppressants, vomiting, and fasting gained more weight than those who were not involved in extreme weight loss attempts. Among girls who dieted, the risk of obesity onset was greater than for nondieters, irrespective of their actual weight at the beginning of the study.

Clearly, one of the major aims of programs to improve body image, eating problems, and child obesity is to encourage healthful eating and physical activity among children and adolescents without promoting weight loss attempts and the diet-binge cycle.

First, do no harm

Those involved in the planning of educational programs to promote sensible eating and prevent body image and eating problems, including dietitians, teachers, health educators, school administrators, nurses, researchers, and policy makers, as well as those responsible for food product development, marketing, and advertising, should remember one of the most basic principles of modern medicine: “First, do no harm.” There have been warnings about the potential to do more harm than good when attempting to prevent eating disorders and child overweight. Obesity prevention programs may inad-
vertently serve to heighten awareness of body weight and increase weight concerns and weight loss attempts among children and adolescents. Eating disorder prevention programs, especially those that directly refer to case studies or eating disorder behaviors such as vomiting, starvation, laxative abuse, diet pills, and cigarette smoking for weight control are likely to introduce these issues to children and adolescents in a suggestive manner. Several research reports confirm that teened girls and young women have adopted smoking after receiving messages about its potentially slimming effects. Further, prevention programs, no matter how well meaning, may inadvertently glamorize and normalize dieting, disordered eating, and the slim ideal by using case studies of sufferers who are celebrities. Parents, teachers, food advertisers, and marketers may unwittingly transfer antifat, weight prejudice, body image stereotypes, and fear of food by perpetuating the “good foods, bad foods” myth and creating negative, frightening messages about food and weight. The use of negative language, a focus on problem-based messages such as sugar and fat are “bad,” and use of the term “junk food” contribute to the underlying fear of food, dietary fat, and weight gain, which precede body image concerns and eating problems. Children and adolescents need to know that they can enjoy a variety of different foods in a balanced diet and need to be enabled to do so in a positive, motivating atmosphere. Negative messages or those that produce guilt or fear of food are likely to do more harm than good.

Self-esteem as a risk factor for body image and eating problems

Building child self-esteem is a logical approach to the prevention of body image and eating problems. Self-esteem refers to the judgment we make about our overall worth. Children and adolescents with high self-esteem are fundamentally satisfied with themselves as a person although still able to identify weaker characteristics that may require work to improve. High self-esteem envelops a realistic self-appraisal of the child’s characteristics and competencies coupled with an attitude of self-acceptance, self-respect, and self-worth. Poor self-esteem in children and adolescents is associated with higher rates of depression, suicide, cigarette smoking, and alcohol and drug abuse. Poor self-esteem is also known to be an important factor in the development of body image concerns, dieting, disordered eating, and eating disorders.

In a large, longitudinal study of 594 schoolgirls, Button and colleagues found that girls with low self-esteem at age 11 to 12 years were at a significantly greater risk of developing severe eating problems by 15 to 16 years of age. In addition, many studies show that overweight children and adolescents or those who perceive themselves to be overweight have poorer overall self-esteem and body esteem than their lower-weight peers.

Self-esteem protection and enhancement are therefore appropriate and desirable for all children and adolescents, but they are particularly relevant in the treatment and prevention of body image problems and eating disturbances because low self-esteem is considered to be a potent risk factor for these problems. (See Shisslak and Crago for a detailed review of protective and risk factors for eating disorders.)

Self-esteem development and enhancement are also believed to improve the other factors known to contribute to body image and eating problems. For example, development of a positive self-image and a strong sense of self-worth is likely to help children and adolescents become more satisfied with their body shape and size and more resilient and resistant to the unrealistic body image ideals portrayed in the media. Children with high self-esteem are better able to cope with the teasing, criticism, stress, and anxiety, which are all associated with eating problems.

Further, the development of a positive self-image, which includes a broad array of aspects of the self other than physical appearance, is likely to help children value their many different characteristics and those of others. This type of self-image development is likely to reduce children’s obsession with perfectionism and the belief that one must be perfect, or strive to be perfect, in order to be valued, accepted, and loved. As perfectionism is strongly associated with body image problems and eating disorders, it is believed that modifying this risk factor by developing self-esteem may help young people to be more self accepting and less involved in the futile quest for perfection.

A self-esteem program: “Everybody’s Different”

The aim of the Everybody’s Different program is to improve the body image, eating attitudes, and eating behaviors of young male and female adolescents by focusing on developing their self-esteem. The program focuses on expanding grade 7 and 8 students’ self-identity and sense of self-worth by encompassing many aspects of the self and thereby decreasing the emphasis and importance of physical appearance. In
addition, the program activities promote themes of self-acceptance, respect, tolerance, and reduced self-expectations of perfection. The major program theme is that an individual's uniqueness is to be expected, valued, and accepted. A strong message of the program is that everybody is different and nobody is perfect. The professionals who deliver the program are trained to build self-esteem by adopting a student-centered, cooperative, and interactive teaching style, which is known to promote student self-esteem. The educational approach features the use of student discussion, group work, team work, games, play, drama, and a content-free, self-esteem building curriculum in which both the teaching style and the content of educational activities foster a positive sense of self, student involvement, self-efficacy, vicarious learning, exchange of feedback and opinion, and a safe, respectful, and positive classroom environment in which the students feel that they cannot "fail."

The Everybody’s Different program consists of nine weekly lessons. The major content is outlined in Table 1.

The Everybody’s Different program significantly improved the body image of students compared with controls. Female students and those at high risk for eating problems particularly benefited from the program, showing improvements in body satisfaction, drive for thinness, physical appearance ratings, reduced dieting, and less unhealthful weight loss after the intervention. Social acceptance (peer pressure, popularity), physical appearance, and athletic competence were less important to both male and female students after the intervention, and close friendships became more important. Many of the improvements were still significant at the 12-month follow-up. A unique and interesting finding of this new self-esteem approach was the improvement in body image among both boys and girls as well as those who were overweight or at high risk of developing body image or eating problems. This is evidenced by the fact that the improvement in the body satisfaction of high-risk male and female students was still statistically significant 12 months after the self-esteem program.

Improvements in body image may prove to be beneficial in helping students to be less body conscious and therefore more likely to become physically and socially active as body consciousness is often cited as a barrier to physical activity in both boys and girls. Overcoming this barrier would be hugely beneficial for all children but particularly helpful in the treatment and prevention of childhood overweight.

Since the initial findings from the Everybody’s Different intervention trial, the new self-esteem approach has been replicated twice among grade 6 to 8 girls in the classroom and in smaller peer support groups by McVey and colleagues. The two separate studies implemented self-esteem enhancement strategies, stress management techniques, peer relations skills, and media literacy lessons and found improved body satisfaction, global self-esteem, and attitudes toward dieting.

Another recent self-esteem intervention among grade 7 and 8 students also produced body satisfaction improvements in male and female students and improved the physical appearance ratings of overweight females.

Environmental considerations
Development of student self-esteem in the prevention of body image and eating problems would be very naive if confined to the individual or to the school classroom. A child’s self-esteem and sense of self-worth, although certainly affected by school curricula and teaching style (e.g., authoritarian teaching versus student centered, interactive, inclusive teaching), are also impacted by peers (e.g., teasing), family, teachers, coaches, school environment, community factors (e.g., the media, advertising, and sports involvement), and culture (e.g., feminist issues, cultural stereotypes, social norms, and stigma about weight and shape).

A holistic environmental approach to the pre-
<table>
<thead>
<tr>
<th>Content/Activities</th>
<th>Aim of Lesson in Relation to Risk Factor or Factor Associated with Body Image Problems, Disordered Eating, or Eating Disorders</th>
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<tbody>
<tr>
<td>Ways of dealing with stress (Group discussions. Students report how they deal with stress. Activities are student led, not teacher imposed.)</td>
<td>Activities encourage students to develop healthful ways of coping with stress such as peer, teacher, family, and parental support; identification and expression of anger and other emotions; communicating with others in order to solve problems. Enhances peer communication and peer support</td>
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<td>Relaxation/visualization exercises and take-home tape recordings</td>
<td>Relaxation promotes positive body awareness and stress control and enhances positive physical sensation.</td>
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<td>Benefits of stress control: student-led discussion and reporting</td>
<td>Homework activities encourage adoption of positive stress control behaviors and involve positive peer, parental, and family support.</td>
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<tr>
<td>Building a positive sense of self (group activities, discussion, games)</td>
<td>Broadens self-image to include many different aspects of the self. Diminishes importance of physical appearance. Promotes diversity, tolerance, acceptance, and respect and develops awareness about the undesirability of prejudice and teasing. Encourages positive self-talk and reduces obsessive, “all-or-nothing” rigid thinking Reduces the unrealistic and futile pursuit of perfection</td>
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<tr>
<td>Expanding self-image to include a wide array of physical and personal attributes—student led</td>
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<td>Awareness and acceptance that everybody is different and nobody is perfect</td>
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<td>Identifying positive self attributes</td>
<td>Models peer support</td>
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<td>Learning to give and receive positive feedback</td>
<td>Positively involves significant others Reduces impact of criticism from others by receiving positive support from varied sources</td>
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<td>Positive self-evaluation</td>
<td>Examination, discussion, and rejection of cultural stereotypes of males and females Rejection of slim/muscular ideals Reinforcement that individuality and diversity are normal and acceptable</td>
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<td>Identifying and valuing uniqueness in self and others</td>
<td>Media literacy and awareness skills Development of reinforcement of self-acceptance and acceptance of others Reduced importance of physical appearance and enhanced importance of many varied attributes Improved identification and expression of emotions Improved peer and parental communication and relationships Expansion of self-expression skills</td>
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<tr>
<td>Exploring individuality of self and peers (self-advertisements)</td>
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<tr>
<td>Exploration, discussion, identification, and rejection of stereotypes in our society (student-led discovery of media images of stereotypes—not teacher imposed; art activities)</td>
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<td>Reinforcement that diversity, uniqueness, and differences between people are to be expected, valued, and accepted (student presentation of artwork and presentation of main messages/discovery from this activity)</td>
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<tr>
<td>Communication skills, peer support (drama activities, role plays, discussion)</td>
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vention of body image and eating problems, as well as child overweight, such as the Health Promoting Schools Framework, theorizes that whole communities need to be involved in fostering overall health within school and community environments. Veteran eating disorder prevention specialists Michael Levine and Linda Smolak suggest various ecologic, empowerment, and activism approaches to the prevention of eating problems. Hence, whole systems such as families, schools, communities, governments, and corporations need to be involved in and committed to the protection and enhancement of child health and the prevention of these pernicious body image and eating problems, which are currently burgeoning among our youth.

References
