

decreasing BMI (218, 219). In spite of limitations inherent in the method, clinicians should assess a patient's readiness for change when determining how to approach the family.

- 4.4 We suggest that clinicians encourage and support patients to limit nonacademic screen time to 1 to 2 hours per day and decrease other sedentary behaviors, such as digital activities. (2|⊕○○○)

Evidence

The 2009 Cochrane analysis reported that a combined behavioral approach incorporating both dietary and physical activity changes can produce a significant and clinically meaningful reduction in overweight in children and adolescents (204). A meta-analysis commissioned by the original Task Force of 3 randomized trials of interventions for reducing sedentary activity reported imprecise results (*i.e.*, that these interventions had both a favorable and unfavorable impact on obesity outcomes) (182). Both girls and boys demonstrated small decreases in the amount of screen time in a German study, and these decreases did not correlate with increases in physical activity (227).

Values and preferences

The committee placed a high value on limiting digital access time and other efforts to decrease sedentary time. As our ever-increasing digital environment necessitates increased screen time, a plan for the world's children and adolescents should complement necessary screen time with:

- environments that demand and facilitate movement
- monetary incentives for decreased caloric intake (such as taxes on sugar-sweetened beverages).

The committee agrees with research that finds an association with the presence of a television set in a child's bedroom to increased screen time and increase caloric intake while weakening the positive influence of parents on promotion of healthy habits (228, 229).

Psychological complications of overweight and obesity

Psychosocial

- 4.5 We suggest that the health care team identify maladaptive rearing patterns related to diet and activity and educate families about healthy food and exercise habits. (2|⊕○○○)
- 4.6 We suggest that the health care team probe for and diagnose unhealthy intrafamily communication patterns and support rearing patterns that seek to

enhance the child's or adolescent's self-esteem. (2|⊕○○○)

- 4.7 We suggest that the health care team evaluate for psychosocial comorbidities and prescribe assessment and counseling when psychosocial problems are suspected. (2|⊕○○○)

Evidence

In section 4 we discuss the importance of involving the whole family, and not just the child or adolescent, in prevention and treatment interventions.

How interactions between parents and children and adolescents and parenting styles contribute to unhealthy lifestyle habits is a subject of investigation (230, 231). An additional factor to overcome before initiating any intervention may be the parents' inability to recognize that their child or adolescent is overweight, particularly for the preschool child (232–234).

Obesity is associated with QOL, with levels measured in obese children and adolescents equivalent to those seen in pediatric cancer or diabetes (235, 236). In addition to low QOL, children and adolescents with obesity have significant psychosocial comorbidities, including poor self-esteem (237–239), increased risk of depression and anxiety (240–242), and higher-than-average risk of eating disorders and substance abuse. Low self-esteem (243) and perceived or actual higher BMIs are associated with increased likelihood of smoking and alcohol consumption (244).

To remove the bias that might be seen in a clinic sample, the Childhood Growth and Development Study in Australia enrolled healthy weight ($n = 158$), overweight ($n = 77$), and obese ($n = 27$) children from the schools and from families asking to be referred ($n = 19$). Heights, weights, and psychological testing were done in the schools for the school-based cohort (245). Increasing BMI z scores were associated with decreasing self-worth and global self-esteem as well as with decreased athletic competency, social acceptance, and dissatisfaction with their physical appearance. These associations were reported as young as age 8 years, but the association with physical appearance was more pronounced in the older group (246). The presence of psychosocial distress in a population of school children and adolescents not seeking clinic referral, as well as those seeking referral, indicates that psychosocial issues are present in both clinical and nonclinical populations of youths who are obese.

A review of the literature found lower QOL scores for social acceptance, family life, physical appearance, school functioning, and physical functioning in all but 2 of the 34 publications included in the study. Factors influencing lower QOL included degree of obesity, symptoms of