Overweight youth: Changing behaviors that are barriers to health

Practical advice for dealing with the family, the child, and socioeconomic environment

Practice recommendations

- To motivate change, help parents to realize that overweight in their child is a health risk and not merely an aesthetic concern (C).
- Keep in mind that children can be motivated by different goals, such as increased athleticism, appearance, or social acceptance (C).
- Several short bursts of physical activity are usually more feasible than longer bouts, and may be more reinforcing for children and adolescents (C).
- Changing specific eating and activity behaviors is more realistic than setting a weight management goal (C).

My child doesn't have a weight problem. We're a family of big eaters, that's all.” If you’ve heard this explanation or ones like it after raising a concern about a child's weight, chances are you will encounter barriers to recognizing obesity and to changing the behavior that encourages it.

Even when parents and a significantly overweight child or adolescent acknowledge the problem, they may not achieve goals for good nutrition or activity. Treating childhood obesity requires identifying and removing the barriers to change.

In this paper, we identify 3 domains of weight management barriers—family, personal, and sociocultural—and offer possible solutions for dismantling the barriers.

Barriers to weight loss

Family: When parents make poor choices

Ideally parents would model a healthy lifestyle, provide a supportive home atmosphere, and reduce family stressors to facilitate weight reduction. However, parental behavior—even when well intentioned—often interferes with what’s best for the child.

If parents make inadequate nutritional choices and have a sedentary lifestyle, their children will mimic them. In fact, parent self-report of activity accounted for some of the variance in overweight youth’s physical activity.1

Parents’ food choices and purchasing behaviors may affect how their children purchase both healthy and unhealthy foods.2 Regular family mealtimes with nutritious foods will help adolescents learn to make more positive dietary choices and adopt healthy behaviors.3

In addition, the weight of mothers and fathers influences the weight of their children,4 and parent obesity is associated with less physical activity among children.5
Parental disciplinary strategies also affect children’s behavior. Authoritarian parents tend to engage in a battle of wills with children, creating standoffs—eg, when children are forced to sit at the table for hours to try fruits and vegetables or other new items.9

Authoritarian parenting was associated with the highest risk of overweight among young children.10 However, parental control of food intake and structured planning of healthy behaviors is not always negative.11,12

Parents often do not see their children as overweight even when they are. Parents may actually view heavy children as being healthy and a sign of successful parenting.4,11 They may use terms such as “thick” or “solid” rather than “overweight.” Some parents acknowledge weight problems only if their child is the object of teasing or exhibits physical limitations.14

Deflected responsibility. Furthermore, parents often attribute weight difficulties to an inherited propensity, citing multiple overweight family members while disregarding the influence of the home environment on weight status.15

Personal barriers: 
A need for empowerment
In a behaviorally oriented weight-control program for youth, significant predictors of weight loss were the child’s beliefs regarding personal control over weight, perceived difficulty of losing weight, attribution of obesity to their medical problems or family problems, and perceived willingness of family members to diet.16

Sometimes motivation is lacking. The importance of motivation in getting obese children to exercise is well established.7,17 Inaction may be due to a lack of information or to insufficient maturity to see that change is needed to protect health.

Psychosocial problems are more prevalent among overweight youth than among their peers at normal weight.18 In the past 10 years, published research on the psychiatric aspects of pediatric obesity shows increased rates of depression, anxiety, and low self-esteem,19 which can be significant barriers to change.20 Emotional difficulties can increase distress that contributes to binging and overeating,19 limit physical activity, and impair motivation to change by increasing helplessness and hopelessness.20,21

Comorbid physical conditions can affect activity goals (juvenile arthritis, hemophilia, asthma, etc) or dietary goals (diabetes, food allergies, etc).

Limited knowledge about nutrition and exercise can hinder behavioral change. Weight management goals, for instance, are often too broad or vague to be of help to children and their families. They need specific details. Much of the public misunderstands important nutritional concepts—portion size, balanced meal, metabolism, healthy eating, and low fat. For example, children believed a food product labeled “diet” was healthy.

Physical activity concepts are also often misunderstood by patients; for example, “screen time,” moderate intensity, cardiovascular fitness, and low impact. Using nutrition and activity terminology with patients does not guarantee good communication or goal achievement. Information and awareness, as well as myths and misinformation, were found to be barriers to weight improvement.22

Sociocultural barriers: A “fast food” culture and ever-present bias
Multiple studies have cited increased consumption of high energy/low cost foods including carbohydrates,23,24 fats, and sugars23,25 as a cause of child obesity. Many foods thought to be central to a healthy diet are perceived by some caregivers as too costly. The good taste, convenient preparation, and lower cost of foods with refined grains and added sugars and fats increase their popularity.26,27

Some neighborhood environments limit access to fruits and vegetables,28 resulting in increased rates of obesity. Restaurants, including the “fast food” kind, often serve large portions of unhealthy foods and thereby promote the ingestion of portions
that are, literally, out of proportion to reason.\textsuperscript{29} Nutrient-dense lean meats, fish, and fruits and vegetables cost more per serving and do not satiate appetites as readily.

Unsafe neighborhoods cause significant anxiety in inner city parents and children\textsuperscript{30} and may discourage physical activity, thus increasing risk of overweight.\textsuperscript{31} In a study involving 20 large US cities, mothers’ perceptions of neighborhood safety related to their children’s television viewing time,\textsuperscript{32} and television viewing time has been shown to have a negative relationship to increased body mass index (BMI) in youth.\textsuperscript{33–35}

Obese children may avoid physical activities that involve peers. Peers exert increasing influence on children and adolescents and ostracize those who are different. Bell et al showed that young children were less willing to engage an obese peer in physical activities,\textsuperscript{36} and overweight and obese children are more likely to be the victims of bullying as well as more likely to be the perpetrators of bullying than are normal weight peers.\textsuperscript{37}

Although rates of childhood obesity among the general population are alarmingly high, they are higher still in ethnic minority and low-income communities.\textsuperscript{38} Low-income and minority children watch more television than white, non-poor children do. Neighborhoods where low-income and minority children live typically have more fast food restaurants and fewer vendors of healthful foods than do wealthier or predominantly white neighborhoods. Obstacles cited by Kumanyika\textsuperscript{38} are unsafe streets, dilapidated parks, and lack of facilities. In Hispanic youth, barriers in the school system include lack of facilities, equipment, and trained staff for physical education.\textsuperscript{39} Hispanic children are more sedentary than are white children\textsuperscript{40} and resultantly overweight.\textsuperscript{41}

\textbf{Enlist other caregivers to strengthen a treatment plan}

We promote a multidisciplinary approach—the short- and long-term benefits of which are supported by data\textsuperscript{42}—to treating overweight youth: parental involvement, nutrition education, physical activity education, and behavior modification.\textsuperscript{42} Coordination among the healthcare professionals is important to avoid giving mixed messages to patients and to learn what each discipline uniquely discovers about barriers and ways to surmount them. Combining perspectives and information should lead to a stronger treatment plan (\textbf{FIGURE}) and greater treatment success. Online resources like the USDA’s MyPyramid.gov, are available to clinicians who do not have access to multidisciplinary clinic facilities.

\textbf{Parents’ attitudes influence the child}

Assess the family’s level of concern and willingness to participate in a treatment plan.\textsuperscript{44–46} Parents’ involvement is critical, especially given that parental concern about weight is a predictor of change in total fat mass over time, at least in Caucasian children.\textsuperscript{14} Only when parents see a child’s weight as a health problem are they likely to be motivated toward changing.\textsuperscript{43}

Research suggests that the parents’ attitude toward physical activity affects a child’s attitude toward physical activity.\textsuperscript{19,47} In fact, parent changes in BMI have been found to predict child changes in BMI for overweight youth.\textsuperscript{48}

Clinicians need to inform and engage family members in the assessment and behavioral change processes, uncover erroneous belief systems, identify family dynamics that may affect treatment, and assess parenting skills. For instance, feeding children every time they say they are hungry might not be in their best interest, especially if the food is used to satiate or modify emotions and behaviors. Parents need to understand how their roles in addressing nutrition and physical activity change as their children move through different developmental periods,\textsuperscript{49} suggesting a flexible parenting style that evolves as the child ages.

One method to determine the parental choices and behavior is to ask parents to keep a record of what the child eats and in
what portion size. How much and what kind of exercise does the child receive? Over time, patterns emerge that allow a clinician to formulate a treatment plan based on eating and physical activity modification.

**Identify the personal goals that motivate a child**

Overweight youth motivated to change are more likely to exercise\(^1\) and make healthier nutritional choices.\(^9\) A child in the preparation/action stage of change is highly motivated to make changes.\(^3\) Often multiple discussions are needed before a patient is ready to make changes. Keep in mind when having these discussions that patients can be motivated by different goals (increased athleticism, appearance, social acceptance).

For patients with comorbid medical disorders, modify nutrition and activity recommendations accordingly. Patients
with emotional or behavioral disorders may need to see a psychologist or psychiatrist who can evaluate for and treat the issues. Psychologist-led group therapy sessions for the youth and/or their parents can also be helpful in providing support and positive peer modeling. If significant family stress or negative family dynamics are present, a referral for family therapy could be helpful.

**Educate patients and caregivers about nutritional foods**
Some patients and their families need assistance in learning how to buy healthful foods on a limited income. For others, learning how to budget and distribute food throughout the month is important.

Omar et al reported that male caregivers were most interested in learning about nutritional food choices, and that female caregivers were most interested in time-cutting measures for feeding their children. Caregivers, in general, relied on other family members for most nutrition information, some of which was inaccurate. This disparity among caregivers opens avenues for educating families, and in some cases must include the extended family. Furthermore, misunderstandings of the meanings of common terms can be avoided with a review or educational handouts.

Finally, your advocacy for better laws, school policies, and social services can positively affect the cost of food, access to healthy foods, and neighborhood safety.

**Provide physical activity choices**
Provide a list of no-cost or low-cost options for exercise. With the child’s or teen’s input, list all the physical activities they enjoy and review other activities that they might like to try. Contact community centers and local parks and recreation services for a list of child-appropriate low-cost or no-cost physical activities available and add them to the list. Emphasizing activities that the child/teen finds enjoyable will enhance willingness to participate and consistency.

Sometimes, several short bursts of physical activity are more logistically possible than a longer bout, and may be more reinforcing for children and adolescents. Sothern et al recommend physical exercise that is both structured and progressive. Walking 15 minutes a day, 3 times a week, and gradually increasing the time and intensity is both structured and progressive.

**Introduce behavior modification**
**Prioritize changes or goals.** Changing specific eating and activity behaviors is more realistic than setting a weight management goal, because behaviors are easily identifiable, and changing them will likely yield health benefits before weight loss occurs. Overweight children need reminding that even if they maintain their weight, they will often grow in height, improving their BMI.

Once you have emphasized the importance of behavioral changes, set specific changes as goals. For example, “decrease intake of drinks containing sugar such as juice, sweet tea, or soft drinks to 1 or less per week” or “move from 0 minutes of physical activity to 15 minutes per day.” Move toward initial goals slowly so they can be achieved, and build positive momentum toward further changes. Assess nutrition and activity goals regularly and refine and revise goals as needed.

Carefully tracking progress toward treatment goals will also help you assess where additional barriers might be and motivate and energize patients who are making changes. When goals are not met, ask patients “why” in a nonjudgmental manner; this approach might disclose other unforeseen barriers and lead to a problem-solving discussion that can overcome them.

Traditional behavioral modification techniques apply to nutrition and physical activity changes. Rewarding progress can increase compliance and motivation to maintain changes and set new goals. Stimulus control techniques can also be helpful (eating at the table, not in front of the TV). Another technique that can work is making sedentary activities such as time spent in front of a television or computer contingent upon completion of physical activity. This technique, called the
Premack Principle involves using a favorite, high-frequency activity as a reward for a behavior you would like to increase, such as physical activity. The patient is only allowed to engage in this favorite, high frequency activity as a reward for achieving a daily goal.

**Conclusion: On transcending barriers to change**

Multiple barriers to controlling childhood overweight are possible. Addressing weight status and related nutritional and activity behaviors is difficult if potential barriers are not recognized and addressed at the outset. Careful tracking of progress toward treatment goals is also important to find additional barriers and motivate patients. When goals are not met, asking the patients why in a nonjudgmental manner might disclose other unforeseen barriers and lead to a problem-solving discussion.

Data support the short- and long-term benefits of a multidisciplinary approach to treating overweight youth. Parents can help children change their eating and activity behaviors by modeling healthful behaviors, providing a home environment that makes it easy to make healthful choices, focusing less on weight and more on overall health, and providing a supportive environment for their children to enhance communication.

Transcending the barriers to change involves lifestyle interventions. A multidisciplinary treatment approach is recommended, one that addresses family-centered treatment, nutrition and physical activity education, and behavior modification. Coordination between healthcare professionals is important to avoid giving mixed messages to patients. Combining perspectives and information should lead to a stronger treatment plan and greater treatment success.

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