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Accurate Parental Classification of Overweight Adolescents' Weight Status: Does It Matter?

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What's Known on This Subject

Research suggests that many parents do not recognize that their children are overweight. However, research has not adequately explored what parents do when they have more accurate perceptions of their child's weight status.

What This Study Adds

This study shows that accurate parental perception of an overweight adolescent's weight status is not associated with parental behaviors that are likely to help adolescents make healthy food choices, be more physically active, and have better long-term weight outcomes.

ABSTRACT

OBJECTIVE. Our goal was to explore whether parents of overweight adolescents who recognize that their children are overweight engage in behaviors that are likely to help their adolescents with long-term weight management.

METHODS. The study population included overweight adolescents (BMI \geq 85th percentile) who participated in Project EAT (Eating Among Teens) I (1999) and II (2004) and their parents who were interviewed by telephone in Project EAT I. Cross-sectional analyses were conducted with 314 adolescent-parent dyads, and longitudinal analyses were completed with 170 dyads.

RESULTS. Parents who correctly classified their children as overweight were no more likely than parents who did not correctly classify their children as overweight to engage in the following potentially helpful behaviors: having more fruits/vegetables and fewer soft drinks, salty snacks, candy, and fast food available at home; having more family meals; watching less television during dinner; and encouraging children to make healthful food choices and be more physically active. However, parents who recognized that their children were overweight were more likely to encourage them to diet. Parental encouragement to diet predicted poorer adolescent weight outcomes 5 years later, particularly for girls. Parental classification of their children's weight status did not predict child weight status 5 years later.

CONCLUSIONS. Accurate classification of child overweight status may not translate into helpful behaviors and may lead to unhealthy behaviors such as encouragement to diet. Instead of focusing on weight per se, it may be more helpful to direct efforts toward helping parents provide a home environment that supports healthful eating, physical activity, and well-being. *Pediatrics* 2008;121:e1495–e1502

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Key Words

obesity, overweight, adolescent, parent, weight management, dieting, home

Abbreviations

EAT—Eating Among Teens

SES—socioeconomic status

OR—odds ratio

CI—confidence interval

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THE HIGH PREVALENCE of obesity among children and adolescents is of public health concern^{1,2} given the physical consequences associated with excess body weight^{3,4} and the psychosocial consequences associated with weight bias.⁵ Increasingly, parents are viewed as having a critical role in helping their children achieve and maintain a healthy weight.^{6–12} Studies have shown that parent involvement has been found to be helpful in the treatment of obesity in children,¹³ although research with adolescents has been sparse and results have been mixed.^{13,14} As adolescents transition toward greater independence and autonomy, their food and physical activity patterns reflect the changing role of parental influence. Still, parents and families continue to be a critical influence in the lives of adolescents.^{15,16}

Concern has been expressed about the number of parents who are not aware that their children are overweight.¹⁷ Studies of parents of young children, primarily children of preschool and elementary school age, have found that many parents do not accurately classify their children as overweight even when they are objectively classified as overweight with nationally or internationally recognized cutoff points for screening purposes.^{17–23} Fewer studies have examined parental accuracy of their adolescents' weight status. In Project EAT (Eating Among Teens) I, a population-based study of adolescents from which the overweight adolescents in our study were drawn, adolescent weight status was assessed accurately by 60% of the mothers, underestimated by 35% of the mothers, and overestimated by 5% of the mothers.²⁴ Studies showing that parents of overweight children do not always recognize their child's weight status have led to the conclusion that raising parental awareness of weight as a health issue is important.²⁵ For

instance, the Institute of Medicine's report on preventing childhood obesity²⁵ recommended that schools measure students' weight, height, and gender- and age-specific BMI percentiles on an annual basis and make this information available to parents.

Given the increased concern about the number of parents who do not recognize that their children are overweight, and the trend to inform parents when their child is above a recommended weight,^{26–29} it is important to know what parents do when they recognize that their children are overweight. Thus, we focused our study on overweight adolescents and their parents. We examined the weight-related parenting behaviors of parents who correctly classified their children's weight status, compared with parents who did not recognize that their children were overweight, and whether accurate parental classification of weight status made a difference in terms of adolescent weight outcomes. More specifically, we explored whether parents who recognized that their children were overweight engaged in the following behaviors: having fruits and vegetables readily available within the home; having fewer soft drinks and less candy, salty snack food, and fast food in the home; serving regular family meals and avoiding having the television on during meals; encouraging their adolescent child to eat healthful foods and be physically active; and encouraging their child to diet for weight-control purposes. We also explored whether adolescents whose parents accurately classified them as overweight were more or less likely to be overweight 5 years later. Finally, we explored whether those parental behaviors that differed across parental perceptions of their child's weight status predicted adolescent weight status 5 years later.

METHODS

Study Design and Population

Project EAT was designed to assess the socioenvironmental, personal, and behavioral determinants of dietary intake and weight status. An initial cross-sectional survey (EAT I) was conducted with an ethnically and socioeconomically diverse sample of adolescents from 31 public middle and high schools in the Minneapolis/St Paul, Minnesota, area during the 1998–1999 school year. In addition, a subset of parents were randomly selected from within each racial/ethnic stratum to be interviewed via telephone within 1 month after their adolescents completed the surveys at school. Because the mother is usually the primary food preparer, the goal was to interview the mother of the adolescents; however, the primary caregiver was interviewed in the event that the mother was not available or did not reside in the same household. A total of 902 parents participated in the telephone interviews (76.3% of the selected subset).

The adolescents were contacted by mail 5 years later (2003–2004) to participate in Project EAT II, a longitudinal study of adolescent eating patterns and weight-related issues. Because of missing contact information at time 1 (EAT I) and no address found at time 2 (EAT II), 1074 members of the original study population ($n = 4746$) were lost to follow-up. Of the remaining 3672

participants contacted by mail, 2516 completed the Project EAT survey, representing 53.0% of the original cohort and 68.4% of the participants contacted at time 2. Parents were not interviewed at time 2.

Study protocols for both study waves were approved by the University of Minnesota Human Subjects' Committee and at time 1 by the research boards of participating school districts. At time 1, parental consent and adolescent assent were required. Parents were informed about the study, and either active or passive consent was used, in accordance with school district policies. At time 2, only parents of adolescents under the age of 18 years were informed about the study and given the opportunity to refuse to have their child participate. In addition, all adolescents were sent a consent form that they could send back to indicate their lack of interest in participating in the study. Adolescent assent was implied by survey completion.

Our current study included 314 pairs of parents and overweight adolescents (BMI \geq 85th percentile for age and gender)³⁰ included in the subset of adolescents who completed EAT I surveys and whose parents participated in telephone interviews at time 1. For the longitudinal analyses, only the overweight adolescents who completed surveys at both times 1 and 2 and whose parents were interviewed at time 1 are included ($n = 170$). At time 1, the mean age of the adolescents included in both samples was 14.4 ± 1.7 years. Details on sample characteristics are included in Table 1.

Measures

Parent Classification of Adolescent Weight Status

Parents were asked to best describe their child's current weight and responded according to 6 categories: "very underweight," "somewhat underweight," "about right," "somewhat overweight," "very overweight," and "don't know." For analyses, parents were categorized as perceiving their child as overweight if they reported their child as either somewhat or very overweight. Seven parents did not respond to this item, and they were excluded from analyses involving parent classification of adolescent weight status. Another 7 parents who reported that their child was very underweight or underweight were not included in any of the analyses, because we were interested in comparing the parents who viewed their children as overweight with those who viewed their children as being at the right weight.

Family Meal Practices

To assess family meal frequency, parents were asked, "During the past week, how many times did all or most of your family living in your house eat a meal together?" Fast food for the family meal was assessed with the question, "In the past week, how many times was a family meal purchased from a fast food restaurant and eaten either at the restaurant or at home (pizza counts)?" Response categories for both of these items were "never," "1 to 2 times," "3 to 4 times," "5 to 6 times," "7 times," and "more than 7 times." For family meal frequency, responses were dichotomized (>4 times

TABLE 1 Characteristics of the Study Sample

	Sample Included in Cross-sectional Analyses (N = 314) ^a		Weighted Sample Included in Longitudinal Analyses (N = 170) ^b	
	n	%	n	%
Parent gender				
Female	289	92.0	157	92.4
Male	25	8.0	13	7.6
Parent weight status				
Obese (BMI ≥ 30)	103	34.7	61	37.3
Not obese (BMI < 30)	194	65.3	103	62.7
Adolescent gender				
Female	163	51.9	96	56.5
Male	151	48.1	74	43.5
Adolescent race/ethnicity				
White	80	25.5	44	26.1
Black	80	25.5	43	25.5
Hispanic	51	16.2	27	15.9
Asian American	52	16.5	30	17.6
Native American	44	14.0	23	13.4
Mixed/other	7	2.2	2	1.5
Family SES				
High	52	17.1	28	17.2
High-middle	39	12.8	22	13.4
Middle	99	32.5	54	32.8
Low-middle	72	23.3	37	22.7
Low	44	14.4	23	13.9
Adolescent weight status at time 1				
85–<95th percentile	183	58.3	96	56.5
≥95th percentile	131	42.7	74	43.5
Parental classification of adolescent weight at time 1				
Overweight	145	47.2	73	44.0
Not overweight	162	52.8	92	56.0

^a For analyses examining associations between time 1 variables.

^b For analyses examining associations between time 1 variables and time 2 weight outcomes. The time 2 and 1 populations were similar but not identical. Thus, response propensity weighting was used to allow extrapolations back to the time 1 study population.

per week versus less frequent) on the basis of population distributions and previous analyses that found that this was a meaningful cutoff point in terms of outcomes.³¹ Fast food at family meals was dichotomized (≥1 time per week versus less frequent) on the basis of population distributions (although findings were similar with higher cutoff points also). To assess television-watching during meals, parents were asked how strongly they agreed with the statement, “We often watch TV while eating dinner.” Responses were on a 4-point Likert scale and ranged from “strongly agree” to “strongly disagree.” For analyses, responses were dichotomized into “agree”/“strongly agree” versus “disagree”/“strongly disagree.”

Home Food Environment

To assess fruit and vegetable availability at home, parents were asked, “How often would you say fruits and vegetables are available in your home?” Response categories included “always,” “usually,” “sometimes,” and “never.” Similar response categories were offered for the

questions that assessed whether vegetables are served at dinner and home availability of soda pop, chocolate/candy, and salty snack foods. For analyses, categories were dichotomized into “always” versus other responses.

Parental Encouragement of Adolescent Healthy Eating, Physical Activity, and Dieting

Parents were asked 3 questions regarding how they deal with “health habits” in their family: (1) “To what extent do you encourage (child’s name inserted) to eat healthy foods?” (2) “To what extent do you encourage (child’s name inserted) to be physically active?” and (3) “To what extent do you encourage (child’s name inserted) to diet to control his/her weight?” Responses included “not at all,” “a little bit,” “somewhat,” and “very much” For analyses, categories were dichotomized into “very much” versus other responses for encouragement to eat healthy and be physically active. For encouragement to diet, responses were dichotomized into “somewhat”/“very much” versus “not at all”/“a little bit.”

Parent Weight Status

Parents self-reported their heights and weights, and BMIs were derived from the calculation of weight in kilograms divided by height in meters squared (kg/m²).

Adolescent Weight Status

At time 1, surveys were completed within school classes, and we were able to measure height and weight and collect self-reported data on height and weight. Adolescents were selected for inclusion in this study using BMI percentile based on measured height and weight. At time 2, surveys were mailed to study participants; thus, we were only able to collect self-reported data on height and weight. To examine changes in weight status, we used self-reported data at both time points in our analyses. The Must et al³⁰ classification for overweight status (BMI ≥ 85th and 95th percentiles for gender and age based on the first National Health and Nutrition Survey [NHANES I]) was used, because it provides a range of values from childhood to adulthood and, in the current analysis, adolescents were followed through late adolescence/young adulthood.

Sociodemographics

Adolescent gender, age, and ethnicity/race were based on adolescent self-report. Parental gender and family socioeconomic status (SES) were based on parental responses. Parental SES was based on a factor analysis using parental education of the more highly educated parent, family income, and the higher employment status of father or mother. A single factor arose with weights approximately equal. Five categories were chosen by using cut points at sparse regions of the distribution of the factor score to lessen misclassification of individuals near cutoff points.

Statistical Analysis

Analyses were stratified according to gender of the adolescent. The association between parental perception of

their adolescent's weight status and parental reports of family meal practices, home food environment, and encouragement was examined by using separate regressions of the different behaviors on the parental perception of weight status, adjusting for parental gender, parental SES, parental BMI, adolescent age, adolescent ethnicity/race, and adolescent BMI (measured at time 1). All parental behaviors were dichotomized; thus, regression results represent the adjusted proportion of a particular behavior for parents who perceived their adolescent as overweight compared with parents who perceived their adolescent's weight as about right.

To address the possibility that the association between parental perception and parental behaviors may have differed for overweight children (85th percentile \leq BMI $<$ 95th percentile) and obese children (BMI \geq 95th percentile), additional regressions were examined that included an interaction between parental perception of adolescent weight status and an indicator of adolescent weight status. There were no significant interactions; that is, there were no significant differences according to weight status in terms of the relationship between parental perceptions of adolescent weight status and parental behaviors. For ease of presentation and interpretation, overweight and obese adolescents were combined for all analyses and are all referred to as overweight children.

Longitudinal associations between baseline predictors (parental perception of weight status, parental report of family meal practices, home food environment, and parental encouragement to diet, be physically active, or eat healthfully) and future overweight status of the adolescent were examined by using separate logistic regressions of the time 2 overweight status of the adolescent (\geq 85th percentile based on adolescent self-report) on the time 1 predictor adjusted for parental SES, parental BMI, adolescent age, and adolescent time 1 self-reported BMI. Odds ratios (ORs) with 95% confidence intervals (CIs) and adjusted proportions of overweight persisters by different levels of the predictors are presented. In addition, because the longitudinal analyses only included a subset of the original sample, response propensity weights³² were used to adjust for nonresponse so that the longitudinal analyses would be representative of the sample used for the cross-sectional analyses. All final analyses used dichotomized measures of parental reported behaviors to aid interpretation. However, because dichotomizing could potentially reduce statistical power, analyses were also run treating parent-reported family meal practices, home food availability, and encouragement of adolescent behaviors as continuous variables. Results were similar, and the data are not shown.

RESULTS

Parental Classification of Child's Weight

For adolescent girls, all of whom were overweight at time 1, 54.1% ($n = 86$) of the responding parents classified their daughters as overweight, whereas 45.9% ($n = 73$) of the parents viewed their daughters' weight as about right. For adolescent boys, 40.0% ($n = 59$) of

the responding parents classified their overweight sons as overweight, whereas 60.0% ($n = 89$) of the parents viewed their sons' weight as about right. Approximately half (51.5%) of the obese parents (BMI \geq 30) correctly classified their children as overweight compared with 44.8% of the nonobese parents; this difference was not statistically significant ($P = .274$). The adolescents' mean BMI was higher among those who were classified correctly as overweight by their parents (boys: 30.3 ± 5.5 kg/m²; girls: 30.4 ± 5.5 kg/m²) than among adolescents whose parents did not classify them as overweight (boys: 26.2 ± 3.1 kg/m²; girls: 26.1 ± 2.5 kg/m²) ($P < .001$ for both boys and girls).

Parental Classification of Child Weight: Associations With Home/Parental Variables

Family meal practices, home food availability, and parental encouragement of adolescent behaviors were compared for parents who accurately perceived their child as overweight and those who did not perceive their child as overweight, adjusting for family SES, parent gender, self-reported parent BMI, adolescent race, adolescent age, and adolescent BMI measured at time 1 (Table 2). There were no differences for family meal practices (frequency of family meals, use of fast foods at family meals, and television-viewing at family meals), availability of healthy foods at home (fruit and vegetable availability, vegetables served at dinner), availability of unhealthy foods at home (soft drinks, chocolate/candy, and salty snacks), and parental encouragement of their adolescent to make healthy food choices and to be physically active. The only difference between the 2 groups of parents was with regard to parental encouragement of their child to diet for weight-control purposes. Parents who accurately perceived their sons and daughters as overweight were significantly more likely to encourage them to diet for weight-control purposes than parents who did not perceive their children to be overweight.

Parental Classification of Child Weight: Longitudinal Associations With Child Weight Status

We examined whether accurate parental perceptions of child weight status predicted better weight outcomes in their adolescents 5 years later for the 96 female adolescents and 74 male adolescents with data at times 1 and 2. The percentages of adolescents who remained overweight (on the basis of self-reported BMI) and ORs with 95% CIs were adjusted for family SES, self-reported parent BMI, adolescent age, and time 1 self-reported adolescent BMI (data are not shown in tables but are described here in the text). The proportions of adolescents who remained overweight did not differ significantly according to parental classification of their weight at time 1. For boys, 72.9% of those whose parents perceived them as overweight at time 1 remained overweight at time 2 compared with 52.6% of boys whose parents reported that they were not overweight (OR: 0.34 [CI: 0.09–1.39]; $P = .135$). For girls, 57.6% of those whose parents perceived them as overweight at time 1 remained overweight compared with 50.0% of the girls

TABLE 2 Family Meal Practices, Home Food Availability, and Parental Encouragement of Adolescent Behaviors According to Parental Perceptions of Adolescent Weight Status for Overweight Adolescents Who Participated in Project EAT I

	Parent Does Not Perceive Teen as Overweight	Parent Perceives Teen as Overweight	<i>P</i>
Boys, <i>n</i>	89	59	
Family meal practices, %			
Family meal frequency (>4 times per week)	60.2	61.2	.916
Fast food for family meal (≥ 1 times per week)	55.7	62.7	.502
Often watch television during meals (agree or strongly agree)	54.1	48.2	.566
Home food environment, %			
Soda-pop availability at home (always)	35.1	34.9	.981
Chocolate/candy availability at home (always)	7.0	5.9	.828
Salty snack availability at home (always)	17.5	13.7	.623
Fruit/vegetable availability at home (always)	67.1	59.7	.444
Vegetables served at dinner (always)	60.0	46.4	.185
Parental encouragement, %			
Encourage child to eat healthfully (always)	68.0	58.3	.325
Encourage child to be physically active (always)	75.4	71.0	.629
Encourage child to diet to control weight (at least somewhat)	28.2	59.1	.001
Girls, <i>n</i>	73	86	
Family meal practices, %			
Family meal frequency (>4 times per week)	53.6	50.0	.702
Fast food for family meal (≥ 1 times per week)	70.0	69.8	.975
Often watch television during meals (agree or strongly agree)	57.6	52.7	.614
Home food environment, %			
Soda-pop availability at home (always)	41.9	49.0	.434
Chocolate/candy availability at home (always)	9.7	6.3	.506
Salty snack availability at home (always)	16.4	17.4	.888
Fruit/vegetable availability at home (always)	62.9	70.9	.329
Vegetables served at dinner (always)	56.9	59.2	.806
Parental encouragement, %			
Encourage child to eat healthfully (always)	73.7	65.6	.357
Encourage child to be physically active (always)	68.0	68.0	.999
Encourage child to diet to control weight (at least somewhat)	32.9	57.1	<.001

Percentages were adjusted for family SES, parent gender, parent BMI, adolescent age, and adolescent BMI.

whose parents reported that they were not overweight (OR: 0.65 [CI: 0.24–1.76]; $P = .395$).

Parental Encouragement to Diet: Longitudinal Associations With Child Weight Status

Because parents who perceived their children as overweight were more likely to encourage them to diet, we examined whether parental encouragement to diet predicted adolescents' weight outcomes 5 years later among the 74 adolescent boys and 96 adolescent girls in the longitudinal sample. Analyses were adjusted for family SES, self-reported parental BMI, adolescent age cohort, and time 1 self-reported adolescent BMI, and ORs and adjusted proportions are described here. Parental encouragement to diet at time 1 increased the odds, albeit of only marginal significance, of persistent overweight at time 2 in boys (OR: 3.54 [CI: 0.90–13.85]; $P = .070$). About half (51.7%) of the boys whose parents did not encourage them to diet remained overweight compared with 74.1% of boys whose parents encouraged them to diet. A similar and significant trend was found for girls (OR: 2.98 [CI: 1.10–8.07]; $P = .032$). Without parental encouragement to diet, 43.9% of the girls persisted in

being overweight compared with 66.1% of the girls whose parents encouraged them to diet. Thus, the only parental behavior found to be more common among parents who accurately perceived their teens as overweight (ie, parental encouragement to diet) was also associated with poorer adolescent weight outcomes 5 years later.

DISCUSSION

We found that parents of overweight adolescents who accurately perceived their child as overweight were not more likely to engage in behaviors that might help their child with healthy weight management, as compared to parents who did not perceive their child to be overweight. There were no differences in variables of potential benefit to overweight children, such as increased family meals, greater availability of fruits and vegetables at home, fewer soft drinks at home, and parental encouragement to make healthy food choices or be physically active. Parental encouragement to diet was the only difference found between the 2 groups of parents. Parents who accurately perceived their adolescents as overweight were more likely to encourage them to diet

to control their weight. Furthermore, longitudinal analyses did not find that accurate parental classification of their child's weight predicted better adolescent weight outcomes 5 years later. Encouragement to diet actually increased the risk for overweight at the 5-year follow-up; this association was statistically significant for girls and of marginal significance for boys.

Similar to findings from other studies,^{17–23} we found that many parents (52.8%) of overweight adolescents did not classify their children as overweight. This number is of concern, given the high prevalence of obesity in youth¹ and its associated health risks.⁴ Of greater concern, however, is that parents who did recognize that their teens were overweight were no more likely than other parents to engage in behaviors that might help their children make healthier food choices or be more physically active. Rather, they encouraged dieting, which was counterproductive to healthy weight management. The finding that parental encouragement to diet predicted adolescent weight gain over time is consistent with previous research that suggested that excessive restriction of children's dietary intake can backfire and lead to greater consumption of the restricted foods or eating in the absence of hunger.^{33,34} There seems to be a fine line between helpful and harmful parenting regarding the development of child weight-management behaviors. This line may be even finer for parents of adolescents than for those of younger children, because body image is such a concern throughout adolescence³⁵ and the teen years are a time when parent-child relationships are shifting to allow adolescents increasing autonomy.³⁶

When examining the results of our study, a number of factors regarding "objective" and parental classification of overweight need to be taken into account. We objectively classified adolescents with BMI values of ≥ 85 th percentile as overweight and assumed that parents who indicated that their children were overweight were "correctly" classifying them. Although this may be true for the majority of adolescents, it may not be true for all of them, because the cutoff of the 85th BMI percentile is for screening purposes and is not an absolute measure of being overweight.³⁷ Although the correlation between BMI-for-age percentiles and body fat is very high for adolescents (0.81–0.85),³⁸ BMI is not a direct classification of body fatness; therefore, there will be some misclassification when weight status is based on BMI alone.³⁹ Parents may use a different cutoff for deciding if their child is overweight. Overweight adolescents who were classified by their parents as "just right" had lower BMIs than overweight adolescents who were classified by their parents as overweight, which suggests that parents may not recognize their child as being overweight when his or her weight status is more borderline. Furthermore, it may be important to distinguish between parents' recognition of overweight and their willingness to report that their child is overweight in a survey or interview. Parents may be reluctant to label their child as overweight because of the stigma associated with being overweight in our society. It may be better to explore parental views on related topics such as

whether a child is able to engage in activities that he or she likes or if the parent has concerns about the child's current and future weight status. Questions such as "Does your child's weight ever interfere with his or her ability to be physically active?" may be easier for parents to answer without feeling as though they are assigning a negative label to their child.

Our study had a number of strengths. Participants were drawn from public schools, and the sample was ethnically and socioeconomically diverse, which allows for greater generalization of the findings to the general population of overweight youth and their parents than do clinical studies or studies of less diverse samples. We also examined both cross-sectional and longitudinal associations. We are unaware of any other published studies conducted on adolescents and their parents that have used this type of methodology to examine questions about the potential impact of parental misclassification on child weight status.

Study limitations must also be taken into account. Although our original study sample was large, the number of overweight adolescents whose parents were interviewed at time 1 and who participated in both waves of the study was smaller than ideal and may have limited our ability to detect statistical significance for some associations. Because attrition differed across sociodemographic characteristics, we used response propensity weighting to allow generalization to populations similar to the original study population at time 1. Adolescent BMI at time 2 was based on self-report. However, at time 1, BMI values based on measured and self-reported heights and weight were found to be highly correlated ($r = 0.85$ [girls] and 0.89 [boys]), which lessened our concerns about using a self-reported measure.⁴⁰ In addition, single-item indicators that lack data on reliability and validity were used to assess parental behaviors and the home environment. Finally, some potentially important variables were not assessed. For example, questions on home availability and accessibility of foods were limited. Parents were not asked whether they teased their children or made derogatory comments about their children's weight. Teasing about weight may be associated with increased parental encouragement to diet and has been found to predict poorer weight outcomes among adolescents.⁴¹

Randomized, controlled intervention studies are needed to understand what types of parental interventions would be most helpful in promoting healthy weight management in youth. However, our findings suggest that interventions focusing primarily on informing parents that their child is overweight are not likely to be successful and may lead to parental behaviors such as encouragement of their child to diet, which seems to be counterproductive to healthy weight management. Indeed, previous analyses from Project EAT found that adolescents who diet are at increased risk for disordered eating behaviors and overweight 5 years later, even after adjusting for baseline behaviors and weight status.^{42,43} When counseling parents of overweight children, health care providers should inform parents that dieting is not an effective long-term weight-management strategy for

youth. In addition, given the high prevalence of poor dietary intakes and low physical activity levels among youth,^{2,44,45} from a public health perspective, one might question the approach of encouraging only those parents who have overweight children to provide a healthier home environment for their children. It may be more effective to provide all parents with tools to help them create a healthy home food environment, to role model and support healthy eating and physical activity, to engage in effective parenting, and to talk less about weight and dieting at home.^{41,46-49}

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