Talking About Childhood Obesity: A Survey of What Parents Want

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Abstract

Objective: Determine parent preferences when discussing their child's weight with regard to weight-based terms, terms that are the most motivating, preferred setting, and whether or not awareness of their child's weight status impact these preferences.

Methods: Parents of children ages 3 to 17 years (N = 349) presenting for health supervision visits completed a survey to assess the degree of offensiveness and motivation for change of commonly used weight-based terminology, as well as the preferred setting for discussion of weight. Parents were asked to assess their child's weight status using recommended terminology ("obese," "overweight," "healthy weight," "underweight"), and their responses were compared to the children's objective body mass index (BMI) percentile.

Results: The children had a median age of 10.3 years; 47.3% were female, 15.8% had overweight (85th−94th percentile BMI), and 11.5% had obesity (≥95th percentile BMI). Of children with overweight/obesity, 84.2% of parents underestimated their child's weight status. The least offensive terms were "at-risk weight," "BMI is high," "BMI is above 95%," and "unhealthy weight." The more offensive terms ($P < .001$) were "overweight" and "obese." The parent's perception of their child's weight did not affect offensiveness ratings. "Obese" was the strongest motivator for change ($P < .001$), and "unhealthy weight" was next. Well visits were preferred for discussing weight ($P < .001$). Most parents preferred to have the child remain in the room ($P < .001$), especially if the child was older ($P < .001$).

Conclusions: Providers should use preferred terms when discussing excess weight regardless of a parent's perception of their child's status and should also consider the motivational value of the term. "Unhealthy weight" was both preferred and motivating, but "obese" was the most motivating.

Keywords: body mass index; communication; obesity; overweight; pediatrics; preferred terms

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What's New

A parent's perception of their child's weight did not affect offensiveness ratings of weight-based terminology. Although the word "obese" was rated as a more offensive term, it was rated as the strongest motivator for lifestyle change.

Childhood obesity is a significant problem associated with health risks. Recent data reveal that 31.8% of American children ages 2 to 19 years have overweight or obesity, with 18.5% meeting the definition of obesity.[1,2] Paralleling this problem is an increase in the prevalence of type 2 diabetes in youth which has increased by 30.5% from 2001 to 2009.[3] Obesity in childhood and adolescence confers a high risk of obesity and cardiovascular disease in adulthood.[4] Early identification and intervention for children and adolescents at or approaching an unhealthy weight is important to prevent continued obesity into adulthood. Parents play a vital role in this process, and if a parent is not aware that their child's weight is a problem, then intervention is likely delayed. When a problem has been identified, the manner in which it is communicated may impact motivation for change and return for care. The American Academy of Pediatrics (AAP) recognizes the importance of how this information is communicated and has issued a policy statement to raise awareness regarding the negative effects of weight stigma.[5]

Previous studies have demonstrated that a parent's perception of their child's weight is not always accurate, making the provider-initiated discussion crucial.[6−13] Addressing obesity is often difficult for health care providers for multiple reasons, including time constraints and concern for how the message is perceived.[14] Several studies have evaluated the parental preference of weight-based terminology;[9,15−20] however, most of these studies identified terms preferred by parents when their child's weight status was classified based on parental report.[15,16,18−20] Furthermore, in contrast to most studies, parents of preschoolers with overweight showed preference for the terms "overweight" and "obese," especially

when placed in a personalized clinical context.[17] It is not known how parents with an incorrect perception of their child's weight status respond to weight-based terminology or if this incorrect perception impacts their motivation for lifestyle modification. Knowing which terms parents prefer based on the child's actual or perceived weight category would help when providing obesity counseling. Unfortunately, if parents perceive weight-related terms as hurtful or judgmental during health care communications, such perceptions can negatively influence even the most well-intentioned intervention.[16]

Our aim was to determine which weight-based terms were most desirable to parents of children with overweight and obesity, the terms most likely to motivate behavior change, and whether or not awareness of their child's weight status impacted this preference. In addition, we sought to determine the parents' preferred clinical setting for the discussion of weight. We hypothesized that the accuracy of a parents' assessment of their child's weight status would impact their preference for weight-based terminology and that the preferred terms would influence motivation for change.

METHODS

DESIGN

We designed a survey (Supplementary Figure) using 5-point Likert response scales informed by previously published weight-related terminology surveys.[9,21] The survey was reviewed by a survey expert and a focus group of 10 parents without a medical background, and their feedback was incorporated. We invited parents of children 3 to 17 years old presenting for health supervision visits in the pediatric and adolescent clinics at Walter Reed National Military Medical Center from May to August 2015 to complete the survey.

Walter Reed is located in Bethesda, Maryland, and serves active-duty service members from all military branches, retired service members, and dependents, including children. Beneficiaries live in the Washington, DC, metropolitan area, including Maryland and northern Virginia. They are provided with full medical insurance coverage. Population demographic data were retrieved by the Healthcare Operations Department at Walter Reed using the following search parameters: patient age 3 to 17 years; International Classification of Diseases, 9th Revision, code for health supervision visit (V202); clinic codes; and dates of the study time period. During the survey time frame, a total of 2049 children ages 3 to 17 years received a well visit at Walter Reed. Of these, 37% identified as white, 14.6% as black, 13.5% as other, and 3.5% as Asian or Pacific Islander; for 31.4%, the race/ethnicity is unknown.

A statement of research introduction provided on the survey allowed for implied consent. The child's age, sex, height, and weight were recorded on the survey by the clinic screener prior to the parent completing the survey anonymously. No identifying information was recorded. Height was measured using a calibrated stadiometer. Weight was measured using a digital scale. If multiple children from the same family were being seen on the same day, only 1 form per parent per child was initiated. Parents placed their completed surveys in a brightly colored, marked box upon exiting the clinic. Surveys were available only in English. Exclusion criteria were children with complex health care needs, child's inability to stand independently, inability to read English, completion of the survey by someone other than a parent, and forms with incomplete anthropometrics.

On the survey we asked parents to assess their child's weight using the AAP recommended classifications:[22] "obese," "overweight," "healthy weight," or "underweight." The weight-based terminology terms assessed were "at-risk weight," "unhealthy weight," "overweight," "obese," "fat," "BMI [body mass index] is high," and "BMI is above 95%." For assessment of the desired setting, we asked if parents wanted the child present or absent for a discussion of weight and the desirability of the discussion taking place at a well visit, routine visit, or acute visit or by a mailing. We assessed the extent the following phrases would motivate lifestyle change: "your child is at risk for obesity"; "your child is overweight"; "your child's BMI is >95%"; "your child's BMI is very high"; "your child is obese"; "your child's habits put him/her at risk for being overweight"; and "your child's weight is unhealthy."

The study was formally reviewed and approved by the Institutional Review Board at Walter Reed National Military Medical Center.

OUTCOME MEASURES AND DATA ANALYSIS

The data were analyzed to look for a statistically significant effect of preferred weight-based terminology and motivation for behavior modification. The data were also analyzed in terms of the accuracy of a parent's perception of their child's weight. Analysis included identification of the preferred setting and weight-based terminology to influence motivation for behavior modification.

Independent factors examined included the child's BMI, age, and gender, as well as the parent's gender. BMI was calculated as weight in kilograms divided by height in meters squared. Weight was classified according to Centers for Disease Control and Prevention specific percentile charts, with obesity defined as BMI $\geq$ 95th percentile, overweight as BMI = 85th to 94th percentile, healthy weight as BMI = 5th to 84th percentile, and underweight as BMI < 5th percentile.[23] For some analyses, we dichotomized "age" into 2 groups given the greater autonomy that adolescents have over their lifestyle choices: younger (3−11 years) and older (12−17 years).

For several analyses, ratings were converted to a numeric equivalent (eg, questions with 5 answers were scored from −2 to 2) consistent with the design of the survey. Missing values were not imputed; participants who failed to answer individual questions were excluded from analyses of those questions but included in all other analyses.

For proportions, confidence intervals were estimated using the method described by Agresti and Coull.[24]

Rating differences for survey questions were assessed using the Wilcoxon signed-rank test, paired across surveys. The Fisher exact test was used to analyze the distribution of categorical data. To analyze parental visit preferences, we used a linear mixed-effects model, with visit type, the presence of the child, age group, and the child's BMI category as factors, and treated individual surveys as a random effect. Significance in this model was evaluated using Type III sums of squares. Alpha was set at .05 for all analyses. All statistical analyses were conducted in R (R Core Team; Vienna, Austria).

RESULTS

A total of 461 surveys were received, of which 349 (76%) met inclusion criteria for analysis. The 112 not meeting inclusion criteria lacked anthropometric data. We estimate that 17% of children receiving a well visit during the survey time frame were represented (349 out of 2049). Table 1 shows the demographic characteristics of the analyzed sample. Of the analyzed sample, 15.8% of children had overweight (85th to 94th percentile BMI), and 11.5% had obesity (≥95th percentile BMI). Across all 4 weight groups, 71.6% of parents accurately described their child's weight status. Of children with overweight/obesity (OW/OB), 84.2% of their parents underestimated their weight status. Parents perceived 76.4% of children with overweight and 37.5% of children with obesity as having a healthy weight or being underweight. Parents perceived 57.5% of children with obesity as overweight. Strikingly, for children with obesity, only 5% of parents accurately described their child's weight status. Although most parents of children with obesity did not accurately classify their child using the AAP recommended terminology, they often identified their child as having excess weight. For this reason and because we were targeting parents of children with excess weight (BMI ≥ 85th percentile), we grouped the children with overweight and obesity together for the purposes of analysis.

OFFENSIVENESS OF WEIGHT-BASED TERMS

Parents were asked to rate which terms would be offensive if used by a doctor, and 327 of 349 (94%) completed this section. Responses to this question were scored from 0 ("not at all offensive") to 4 ("extremely offensive"). Less offensive terms were "at-risk weight" (0.12 average rating), "BMI is above 95%" (0.12), "BMI is high" (0.12), and "unhealthy weight" (0.16). More offensive terms ($P < .001$) were "overweight" (0.29), "obese" (0.61), and "fat" (1.28), the last of which was included as a positive control. These differences can also be observed using the proportion of participants that indicated a term was anything other than "not at all offensive" or "not offensive." For the least offensive term, "at-risk weight," only 6.12% (95% confidence interval, 3.9−9.3) of people indicated that this term was offensive; for the more offensive term, "obese," 32.4% (95% confidence interval, 27.6−37.7) indicated that this term was offensive (Fig. 1). The parent's perception of their child's weight did not affect offensiveness ratings of the preferred terms.

Table 1. Demographics of the Study Population (461 Surveys)

Demographics	N (%)
Surveys analyzed, n (%)	349 (76%)
Mother	274 (78.5%)
Parent struggle with weight	100 (28.7%)
Female child	165 (47.3%)
Child's age (y), mean ± SD	10.3 ± 3.9
Younger group (3−11 y), n (%)	202 (57.9%)
Older group (12−17 y), n (%)	147 (42.1%)
Child's weight status, n (%)	
Underweight (BMI, <5th percentile)	12 (3.4%)
Healthy weight (BMI, 5th−84th percentile)	242 (69.3%)
Overweight (BMI, 85th−94th percentile)	55 (15.8%)
Obesity (BMI, ≥95th percentile)	40 (11.5%)

BMI indicates body mass index; SD, standard deviation.

MOTIVATING TERMS

Parents were also asked to rate which terms would be most motivating to initiate a lifestyle change, and 336 of 349 (96%) completed this section. Although all terms were rated as "extremely likely" to motivate a lifestyle change by over 60% of respondents, "obese" was the most motivating term. Responses to these questions were scored from −2 ("would not change") to +2 ("extremely likely to change"). "Obese" was the strongest motivator for change (1.63 average rating) and was more motivating than the next-highest term, "unhealthy weight" (1.56; $P < .001$).

When responses were compared between "obese" and other terms, participants were much more likely to report that "obese" was "extremely likely" to motivate change. For example, although 295 participants agreed that "obese" and "BMI is very high" would be extremely likely to motivate change, 41 participants disagreed. For those 41, "obese" was 12.7 times more likely to be extremely motivating. Similarly high ratios were observed for the difference between "obese" and "at risk for overweight" (10.4), "BMI is >95%" (9.8), "at risk for obesity" (9.5), "overweight" (6.7), and "unhealthy weight" (4.0).

There was no evidence that the terms "obese" and "unhealthy weight" made it less likely for patients to return for follow-up. For children with OW/OB, parents who reported their child as "normal weight" or below were more motivated to initiate change by the term "obese" than were parents who correctly identified their child's weight status ($P = .04$).

DISCUSSION OF HABITS

When asked how they would feel about questions regarding their child's daily habits, ranging from "very positive" (+2) to "very negative" (−2), 345 of 349 (99%) parents responded. Most (84%) felt positively ("positive" or "very positive") about discussing their child's habits; however, parents of children with OW/OB felt differently than parents of children without OW/OB ($P = .02$). Parents of children with OW/OB were much more likely to indicate neutral feelings about the discussion, and

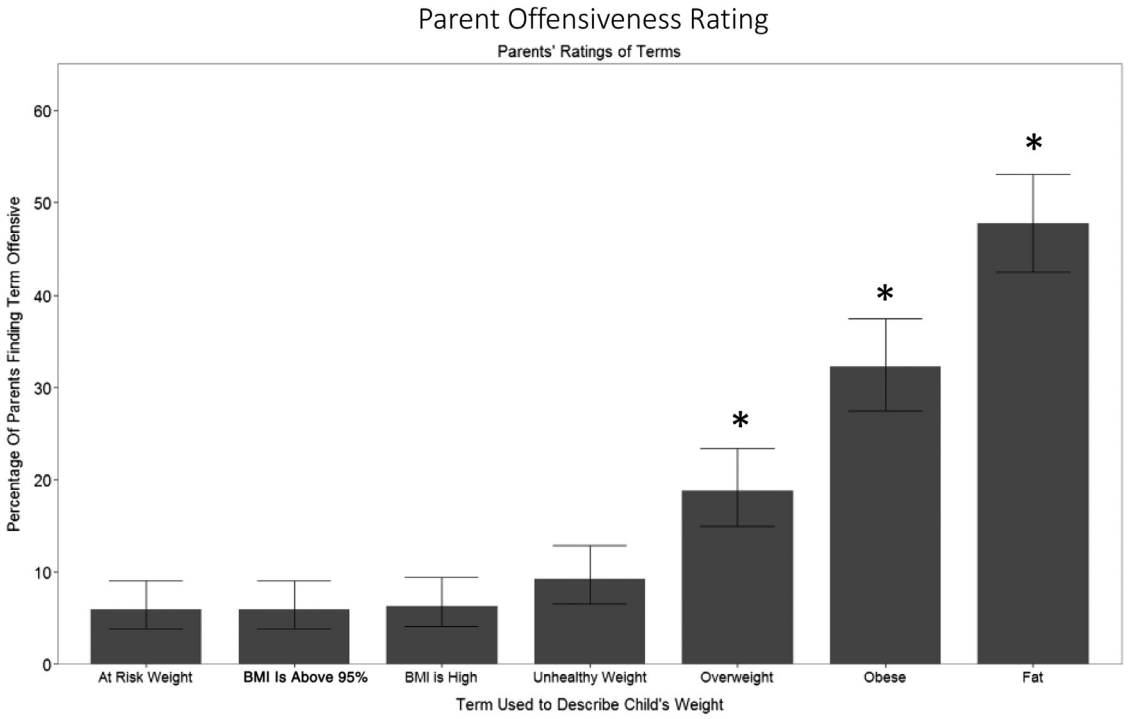

Figure 1. *Parent offensiveness rating. Bars represent 95% confidence intervals. A total of 327 out of 349 (94%) respondents completed this question. *P < .001 compared to the next less offensive term.*

parents of children without OW/OB were much more likely to indicate a "very positive" response (Fig. 2).

PREFERRED SETTING

To assess parental preference for the setting of weight-based discussions, we asked if their child's weight was in a category that put him or her at increased health risks; if they would prefer that this discussion take place at a well, routine, or acute visit; and whether or not they would prefer to have the child present or absent. A preference score from −2 ("highly undesirable") to +2 ("highly desirable") was obtained for each visit type. These preferences were analyzed using a mixed-effects model that included the child's age group and BMI category as additional fixed factors and treated each survey as a random effect. This model showed a significant preference for

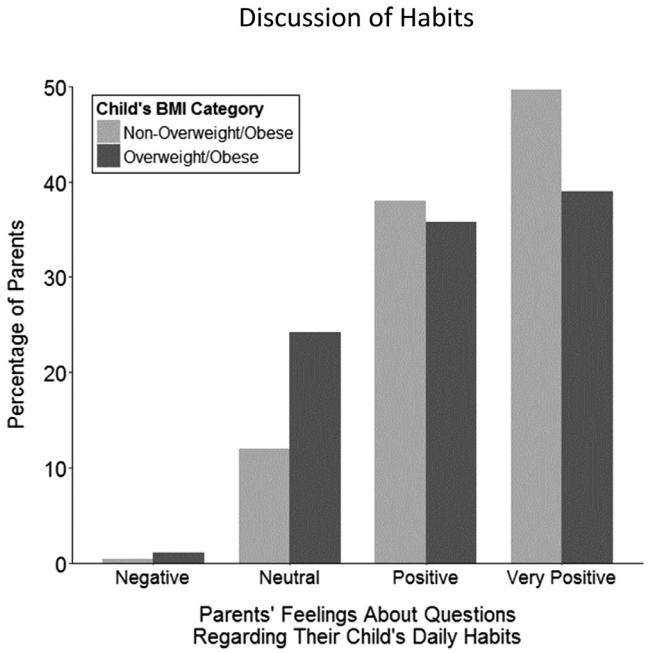

Figure 2. *A total of 345 out of 349 (99%) respondents completed this question. Parents of children with overweight and obesity differed in their feelings about discussing daily habits;* P = *.02.*

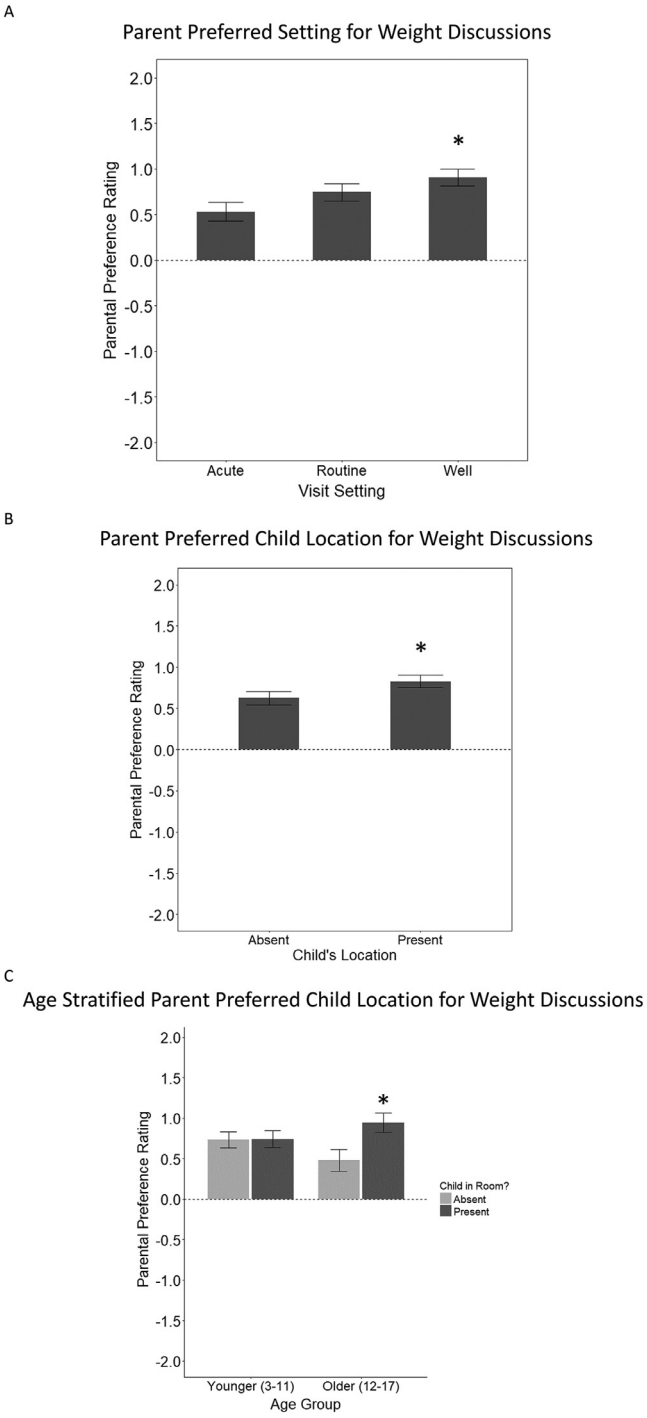

Figure 3. *(A) Parent preferred setting for weight discussion; *P < .001. (B) Parent preferred child location for weight discussions; *P < .001. (C) Age stratified parent preferred child location for weight discussions; *P < .001. Bars represent 95% confidence intervals. Parents were asked to rate their preference of setting on a 5-point Likert scale, and ratings were converted to a numeric equivalent scale from −2 (highly undesirable) to +2 (highly desirable).*

weight discussions during well visits ($P < .001$), and most parents, including those of children with OW/OB, preferred to have the child remain in the room ($P < .001$), especially if the child was older ($P < .001$) (Fig. 3A through C).

DISCUSSION

The percentage of children with OW/OB in this study (27.3%) is similar to that in the US population.[1,2] Although we did not include ethnicity, parental education, or socioeconomic status on the survey, demographic data from the broader sampled population shows diversity.

Many parents do not recognize when their child's weight is increasing excessively or that the child has developed OW/OB. In this study, 71.6% of parents accurately classified their child's weight status. Of children with OW/OB, 84.2% of parents underestimated their child's weight status. Remarkably, for children with

obesity, only 5% of parents accurately identified their child's weight status. There were more parents in our study who underestimated their child's weight compared to a meta-analysis where 50.7% of parents underestimated their children's excess weight.[13]

With so few parents accurately identifying their child's unhealthy weight status, identification by the provider, followed by sensitive education and linking to health risks, is imperative for prevention and intervention. The Pediatrics Expert Committee recommends obesity prevention messages to all children, with targeted counseling and intervention for children with overweight (85th to 94th percentile BMI) and obesity (≥95th percentile BMI).[22] Recommendations are for providers to explore behavior risks by inquiring about diet, physical activity, and sedentary behaviors at least during the annual well visit.[22]

Previous studies show that parents expect physicians to initiate discussions about their children's weight.[17,18] Weight-based discussions, however, are often difficult for many physicians given time barriers and concern for how the message may be perceived. A 2013 meta-synthesis found that, although health care providers detected and diagnosed obesity fairly easily, they found it difficult to talk about weight with patients and parents and were afraid of breaking their therapeutic ties with the family.[25] A review of health professional communication with families about weight management found that many families perceived health professionals' language to be offensive or overly technical and that parents reported feeling blamed, judged, and guilty.[15]

We found that most parents felt positively about discussing their child's habits and identified weight-based terminology that was well received and motivating for change. We did find that parents of children with OW/OB felt less positively about discussing their child's habits. This finding may be a reflection of parents' feelings of blame or guilt and the problem of weight stigmatization in society, including in health care settings.[5] Clinicians should be cognizant of these potential feelings when counseling families. We also found that parents prefer to discuss these matters during well visits. Clinicians should consider that some parents prefer the child not to be present for this discussion, especially for younger children.

Our study addressed the gap of what terms are preferred by parents of children with normal weight and those who are not aware of their child having a weight problem. We found that regardless of a parent's perception of their child's weight status, the preferred terms to initiate discussion about weight were "at-risk weight," "BMI is above 95%," "BMI is high," and "unhealthy weight." The most offensive terms were: "fat," "obese," and "overweight." Interestingly, although "obese" was rated as one of the more offensive terms, it was the most motivating for lifestyle change. For children with OW/OB, "obese" was more motivating for parents who reported their child as "normal weight" or below. "Unhealthy weight" was the next most motivating term.

Consistent with our results, other studies have found "unhealthy weight" to be desirable and "obesity" and "overweight" to be more offensive terms. In an online survey of 445 American parents, the term "unhealthy weight" was the most desirable.[9] In another study, the phrase "gaining too much weight" was preferred 2:1 over "overweight" (51.1% vs 25.9%) and "obesity" (<10%), whether or not the child was overweight; however, the child's weight was reported by the parent in this study.[16] A study with Latino focus groups found no single English term to be inoffensive.[20] Similarly, in 2 smaller studies conducted via interviews with focus groups, parents expressed dislike of any weight-related terminology such as "obesity" and "overweight."[18,19] However, in one study, the use of "overweight" and "obese" was shown to be preferred by 23 parents of 21 preschoolers with overweight, as long as pediatricians provided rationale for the classification.[17]

Consistent with our results, the online survey of 445 American parents found the term "unhealthy weight," in addition to "weight problem," to be the most motivating. In contrast to our study, "obese" was not found to be motivating.[9] The study with Latino focus groups found no single English term as motivating.[20]

Although providers often use the term "BMI" to discuss weight, it has been shown that many parents have difficulty understanding the concept of BMI.[26] Health care professionals should be aware that parents may not have a clear understanding of obesity being defined as a BMI above the 95th percentile. Our study confirmed that "BMI is above 95%" and "BMI is high" are preferred terms; however, we found that they were among the least motivating for behavioral change. This finding may stem from BMI not being well understood by the parents and not as meaningful as it might be for the provider.

When discussing weight with parents of children with OW/OB, providers should consider balancing the least offensive with the most motivating terms. In our study, and supported by other published data,[9] "unhealthy weight" was a preferred term that was also motivating. Thus, the term "unhealthy weight" may be a good choice for providers.

It should be noted, however, that "obese" was the most motivating term and was more motivating for parents of children with OW/OB who reported their child as "normal weight" or below. There was no evidence that the terms "obese" and "unhealthy weight" made it less likely for patients to return for follow-up. Both "unhealthy weight" and "obese" are likely perceived by parents as conferring health risk. As "obese" was found to be most motivating, it may be perceived by parents as more serious. The term "obesity" also defines the diagnosis. Perhaps classifying a child's weight in the "obese" category confers a sense of urgency to implement healthy lifestyle changes. If the term "obese" or "obesity" is used to classify a child's weight, it should be done in an objective and sensitive manner in a way that does not label the child but links the term to health risks. For example, "your child's weight meets the definition of obesity" or "your child's weight puts them at risk for developing obesity." Providers should be mindful that this term, if not used empathetically, may be stigmatizing. Avoidance of weight-based stigma is of paramount

importance, as this can result in emotional distress precipitating adverse outcomes that include social isolation, avoidance of health care services, increased weight gain, and poor self-esteem.[5,27]

Regardless of the terms used, a patient's excess weight status should be linked to health risks. This education should be followed by partnering with the patient and parent using motivational interviewing techniques to develop specific, measurable, attainable, realistic, and timely (SMART) lifestyle goals and arranging for short-term follow-up for further management and intervention.

Strengths of this study include the broad age range (3 to 17 years) and objective height and weight measurements used to accurately assess parent perceptions of weight. Limitations include the inherent bias of a convenience sample for the survey and our inability to examine ethnicity, parental education, or socioeconomic status of those completing the survey. Additionally, given the command structure of the military, these families may be more responsive to recommendations for healthy behavior change.

Using preferred weight-based terms with motivational interviewing techniques, as well as evaluating patient weight loss and encouraging follow-up specifically to discuss weight, may be future considerations for research. Further investigation of how communication among parents with overweight or obesity differs from parents with a healthy weight may also be valuable.

In conclusion, most parents feel positive about discussing their child's habits. We recommend that providers use the preferred terms when initiating discussions of weight regardless of a parent's perception of their child's status. The preferred terms should be balanced by the motivational value of the term. "Unhealthy weight" was found to be both preferred and motivating, although "obese" was the most motivating, especially among those parents of children with OW/OB who perceived them to be of normal weight status. Regardless of the terms used, excess weight should be linked to health risk followed by partnering with the patient and family using motivational interviewing techniques to set SMART goals for healthy lifestyle changes.

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Supplementary Data

Supplementary data related to this article can be found online at https://doi.org/10.1016/j.acap.2019.03.003.

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