



Stigma Experienced by Children and Adolescents With Obesity

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The stigmatization of people with obesity is widespread and causes harm. Weight stigma is often propagated and tolerated in society because of beliefs that stigma and shame will motivate people to lose weight. However, rather than motivating positive change, this stigma contributes to behaviors such as binge eating, social isolation, avoidance of health care services, decreased physical activity, and increased weight gain, which worsen obesity and create additional barriers to healthy behavior change. Furthermore, experiences of weight stigma also dramatically impair quality of life, especially for youth. Health care professionals continue to seek effective strategies and resources to address the obesity epidemic; however, they also frequently exhibit weight bias and stigmatizing behaviors. This policy statement seeks to raise awareness regarding the prevalence and negative effects of weight stigma on pediatric patients and their families and provides 6 clinical practice and 4 advocacy recommendations regarding the role of pediatricians in addressing weight stigma. In summary, these recommendations include improving the clinical setting by modeling best practices for nonbiased behaviors and language; using empathetic and empowering counseling techniques, such as motivational interviewing, and addressing weight stigma and bullying in the clinic visit; advocating for inclusion of training and education about weight stigma in medical schools, residency programs, and continuing medical education programs; and empowering families to be advocates to address weight stigma in the home environment and school setting.

More children in the United States suffer from obesity than from any other chronic condition, with one-third of US children and youth having overweight or obesity and 17% of children 2 to 19 years of age having obesity.¹ In some pediatric populations, such as children living in economically challenged communities, as many as two-thirds of children have overweight or obesity.² Although some promising signs suggest the prevalence of obesity may be stabilizing, rates remain unacceptably high,

abstract

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To cite: Pont SJ, Puhl R, Cook SR, et al, AAP SECTION ON OBESITY, THE OBESITY SOCIETY. Stigma Experienced by Children and Adolescents With Obesity. *Pediatrics*. 2017;140(6):e20173034

and some studies suggest that the rate of children with severe obesity (BMI \geq 120% of the 95th percentile) continues to increase.^{1,2}

Although numerous efforts are underway to help children and adults reach and maintain a healthy weight, many such efforts do not address the social consequences of obesity, specifically weight stigmatization and discrimination.³ Weight stigma refers to the societal devaluation of a person because he or she has overweight or obesity and often includes stereotypes that individuals with obesity are lazy, unmotivated, or lacking in willpower and discipline. These stereotypes manifest in different ways, leading to prejudice, social rejection, and overt unfair treatment and discrimination. For children and adolescents with overweight or obesity, weight stigma is primarily expressed as weight-based victimization, teasing, and bullying.

Weight stigmatization is often propagated and tolerated in society because of beliefs that stigma and shame will motivate people to lose weight.⁴ However, rather than motivate positive change, this stigma contributes to behaviors such as binge eating, social isolation, avoidance of health care services, decreased physical activity, and increased weight gain over time, which worsen obesity and create barriers to healthy behavior change.⁵ Experiences of weight stigma also dramatically impair quality of life, especially for youth. A landmark study by Schwimmer et al⁶ revealed that children and adolescents with severe obesity had quality-of-life scores that were worse than age-matched children who had cancer. Furthermore, the manifestation of weight stigma is not isolated to older adolescents with severe levels of obesity, because negative weight-based stereotypes toward children with overweight emerge as young as 3 years old.⁷ Importantly, peers

are not the only sources of weight stigma. Research documents weight stigma by parents and other family members, teachers, health care professionals, and society at large, including the popular media.^{3,8,9} Thus, children are vulnerable to stigma and its negative consequences in school, at home, and in clinical settings.

Pediatricians and pediatric health care professionals strive to improve the health of patients through direct clinical care and through advocating for systemic and environmental change to support the health and success of patients in homes, schools, and communities. Weight stigma is prevalent through numerous settings and negatively affects the health and success of patients across several domains, including personal and social development, education, and the workplace. Many examples throughout the history of public health demonstrate that disease stigma is a legitimate barrier to prevention, intervention, and treatment. Conditions such as HIV/AIDS, various forms of cancer, alcoholism, and drug use were initially stigmatized and required considerable efforts by the medical field to reduce stigma-induced barriers that impaired effective treatment.¹⁰ Weight stigma is no exception but unfortunately remains an ongoing omission in approaches to address obesity. To best support patients' healthy changes, it is important to recognize, address, and advocate against weight stigma in all settings.

EXTENT OF WEIGHT STIGMA IN MULTIPLE SETTINGS

Weight Stigma in Youth

Weight stigma among youth is most often experienced as victimization, teasing, and bullying. In the school setting, weight-based bullying is among the most frequent forms of peer harassment reported by

students. As early as preschool, young children attribute negative characteristics and stereotypes to peers with larger body sizes.^{11,12} By elementary school, negative weight-based stereotypes are common. Students are less likely to offer help to peers with overweight or obesity, and those with overweight or obesity are more likely to be bullied than are students of a healthier weight.¹²⁻¹⁴ The likelihood of being targeted by verbal, relational, and physical victimization from peers increases with a student's BMI percentile. Longitudinal evidence demonstrates that weight status significantly predicts future victimization, with youth of the highest weight being the most vulnerable to bullying.¹⁵ Recent evidence demonstrates that adolescents report the primary reason their peers are teased or bullied at school is because of their weight.¹⁶ Self-reported experiences of bullying, even among racially diverse samples of adolescents, indicate weight-based harassment is the most prevalent form of harassment reported by girls and the second-most common form of harassment among boys.¹⁷ A study of adolescents seeking weight loss treatment found that 71% reported being bullied about their weight in the past year, and more than one-third indicated that the bullying had persisted for >5 years.⁹

Weight Stigma and Parents and Educators

Perspectives of parents and educators have similarly identified weight-based bullying as a prevalent and problematic issue. A 2011 national study by the National Education Association examined perspectives of bullying among >5000 educators and found that weight-based bullying was viewed by teachers as the most problematic form of bullying in the classroom, more so than bullying because of a student's sex, sexual orientation, or disability.¹⁸ In a national study

of parents, having overweight was perceived by parents to be the most common reason youth are bullied, and these perspectives remained consistent regardless of their children's weight status.¹⁹ Furthermore, a recent multinational study (including the United States, Canada, Australia, and Iceland) showed that adults across these countries consistently viewed having overweight as the most common reason youth are bullied.²⁰ Thus, reports by students, educators, and parents all point to weight-based bullying as a significant problem in the school setting.

Unfortunately, weight-based victimization of youth extends beyond peer relationships. Increasing evidence indicates educators can be sources of weight stigma. Experimental research shows that teachers have lower expectations of students with obesity than they have of students without obesity, including expectations of inferior physical, social, and academic abilities.²¹ Data from 5 waves of the Early Childhood Longitudinal Study, Kindergarten found that weight status in students was more negatively related to teachers' assessments of their academic performance than to their test scores, indicating that teachers rate academic performance of students with obesity as worse than their test performance suggests.²² Self-report studies have additionally demonstrated negative weight-related stereotypes and beliefs among educators in the school setting.^{23–26}

Of concern, parents have also been identified as a source of weight-based victimization toward youth with obesity. In a survey study of adolescents attending weight-loss camps, 37% reported they had been teased or bullied about their weight by a parent.⁹ Survey researchers assessing experiences of weight stigma among women with obesity found that family members were

reported to be the most prevalent interpersonal source of weight-stigma incidents, with 53% reporting weight stigma from their mothers and 44% reporting it from their fathers.²⁷ Weight stigma expressed by parents can have a lasting effect on children, who continue to report emotional consequences from these experiences through adulthood.²⁸

Weight Stigma and the Media

Beyond the school and home settings, youth are additionally vulnerable to weight stigma through the media. Content analyses of popular children's television shows and movies reinforce weight stigma through stereotypical portrayals of characters who appear to have larger body sizes. Characters who are visually slim in children's media are often portrayed as being kind, popular, and attractive, but characters with larger body sizes are depicted as aggressive, unpopular, evil, unhealthy, and the target of humor or ridicule.^{29–31} A content analysis of recent children's movies found 70% included weight-related stigmatizing content, of which 90% targeted characters with obesity.³² Similarly, research examining popular adolescent television shows identified a significantly higher proportion of weight-stigmatizing content in youth-targeted shows (50%) compared with shows targeting a general audience (38.3%).³³ Given that youth spend multiple hours per day watching television and other media, there is a considerable likelihood they are exposed to negative weight-based stereotypes and stigma.³⁴ Furthermore, research has documented associations between greater media exposure among youth and increased expressions by those youth of weight stigma toward peers with overweight and obesity.³⁵ Taken together, this evidence highlights youth-targeted media as sources of weight-based stereotypes that may

reinforce and add to stigmatizing messages communicated to children at school and home.

Weight Stigma in Health Care

Research shows that health care professionals express weight stigma toward patients with obesity, and patients with obesity frequently feel stigmatized in health care settings.³⁶ Some research has found that more than two-thirds of women with overweight or obesity report being stigmatized about their weight by doctors.²⁷ Health care professionals, including physicians, nurses, dietitians, psychologists, and medical trainees, self-report bias and prejudice toward patients with obesity.^{8,37} Research shows that physicians associate obesity with noncompliance and decreased medication adherence, hostility, dishonesty, and poor hygiene. They often view patients with obesity as being lazy, lacking self-control, and being less intelligent.^{8,38} Furthermore, this prejudice negatively affects quality of care and can result in patients with obesity being less likely to seek preventive care and delaying or canceling appointments.^{39–41} Physicians spend less time and engage in less discussion in office visits with patients with obesity than they do with patients with a lower BMI and are more reluctant to perform preventive health screenings, such as pelvic examinations, cancer screenings, and mammograms, for patients with obesity. Psychologists have been shown to ascribe more pathology, more negative and severe symptoms, and worse prognosis to patients with obesity than to those at a healthier weight but with otherwise similar behavioral health histories.^{8,36,41} Anecdotal reports in the news suggest that patients have been denied care because they have obesity, which suggests a need for future studies exploring this discriminatory practice.⁴²

Additionally, patients with obesity have reported not being provided with appropriate-sized medical equipment, such as blood pressure cuffs and patient gowns, which results in a less welcoming clinical environment and affects the quality of the health care that is provided.^{8,38,43}

When it comes to youth, even nuances in the language doctors use to discuss body weight with patients can lead to stigma and health care avoidance. Parental perceptions of words commonly used to describe excess body weight were examined in a national study of parents of children 2 to 18 years of age.⁴⁴ Parents were asked to evaluate 10 common words regarding the extent to which each word was desirable, stigmatizing, blaming, or motivating for weight loss. The terms “fat,” “obese,” and “extremely obese” were rated as the most undesirable, stigmatizing, blaming, and least motivating. In contrast, more neutral words like “weight” or “unhealthy weight” were rated as the most desirable and motivating for weight loss.^{44–46} When parents were asked how they would react if a doctor referred to their children’s weight in a stigmatizing way, 34% responded that they would switch doctors, and 24% stated that they would avoid future medical appointments for their children.⁴⁴ Limited literature has evaluated how health care professionals might most effectively and sensitively discuss weight with their patients and families and also with whom pediatric patients prefer to talk with about their weight.^{47,48} These findings merit further study and underscore the importance of how health care professionals communicate with patients about obesity and weight-related health.

Traditionally, medical school and residency education have provided limited training regarding successful approaches to encouraging health behavior change (eg, motivational

interviewing) and addressing obesity in patients and their families, leading health care professionals to report that they do not feel competent or comfortable discussing weight with their patients.^{49–51} More training is needed for trainees and practicing health care professionals regarding effective approaches to empowering children and families to make healthy changes. There are different approaches to educating medical students and health care professionals about weight stigma, such as educational strategies that emphasize the complex causes of obesity (eg, biological, genetic, and environmental contributors beyond personal control), communication skills training, interacting with virtual standardized patients, and using brief educational films, role play, and dramatic readings in addition to traditional lecture-style learning.^{3,52–57} These approaches have been tested in different formats and can be incorporated into health care professional training programs.

PSYCHOLOGICAL, SOCIAL, AND PHYSICAL HEALTH CONSEQUENCES OF WEIGHT STIGMA

Emotional and Psychological Effects

Weight stigma poses numerous consequences for the psychological and physical health of children and adolescents, including adverse outcomes that may reinforce unhealthy behaviors that promote obesity and weight gain. Experiences of weight-based teasing and bullying increase the risk for a range of emotional and psychological consequences for youth. Evidence has documented increased vulnerability to depression, anxiety, substance use, low self-esteem, and poor body image among youth who are teased or bullied about their weight.^{58–62} These findings persist after accounting for factors such as age, sex, BMI, and age of obesity onset, which suggests stigmatizing experiences rather than

just body weight are contributing to these negative outcomes. Of concern, self-harm behaviors and suicidality are also higher among youth who have been teased or bullied about their weight compared with same-weight peers who have not been teased. In addition to higher suicidal attempts reported among adolescents with obesity, research has found that the odds of thinking about and attempting suicide are approximately 2 times higher among girls and boys who are teased about their weight compared with those who are not teased about their weight.^{63,64}

Social Isolation and Academic Outcomes

Weight-based teasing and bullying also contribute to social isolation and adverse academic outcomes for youth. Evidence from the National Longitudinal Study of Adolescent Health demonstrated that compared with students without overweight, adolescents with overweight or obesity are significantly more likely to experience social isolation and are less likely to be nominated as friends by peers.^{65,66} Youth are keenly aware at an early age that their weight status may affect their social relationships; 1 study found that more than two-thirds of 9- to 11-year-old children who perceived themselves as having excess weight believed they would have more friends if they could lose weight.³⁷ Teasing that impairs social bonds may have an additional negative effect on academic performance. Weight-based teasing has been found to mediate the relationship between students’ higher BMI and poorer school performance⁶⁷ and may lead students to disengage from their school environment. In a recent study, adolescents who reported experiencing weight-based bullying during the previous year indicated that their grades were harmed by these experiences, and they avoided going to school to

escape weight-based teasing and bullying.⁶⁸ The likelihood of students reporting these reactions increased by 5% per teasing incident even after accounting for sex, race, age, grades, and weight status.

Unhealthy Eating Behaviors

Weight-based victimization may reinforce unhealthy eating behaviors that contribute to increased body weight. Among boys and girls enrolled in weight-loss camps, those who reported weight-based teasing were more likely to engage in unhealthy eating behaviors and binge eating than were peers who were not teased.^{69,70} Prospective research has demonstrated longitudinal associations between early experiences of weight-based teasing and later disordered eating behaviors.⁷¹ Other work has found links between weight-based teasing and disordered eating for both adolescent boys and girls across weight strata.⁶⁵ Among Hispanic and African American girls, weight-based teasing from peers and parents was associated with more emotional eating and binge eating.⁷² Retrospective research with young adult women has additionally demonstrated that those who experienced weight-based teasing in childhood are more likely to engage in unhealthy eating behaviors than peers who were not teased, and as the variety of weight-based teasing insults increased in childhood, so did the disordered eating patterns and current body weight status in adulthood.⁶⁷

Decreased Exercise and Physical Activity

Experiences of weight-based teasing and bullying have negative implications for exercise motivation and physical activity. Youth who experience more frequent weight-based teasing have decreased levels of physical activity.^{73,74} Middle school students who report being teased about their weight have less

self-confidence in being physically active and lower levels of physical fitness compared with peers who are not teased even after controlling for sociodemographic characteristics.⁷⁵ Furthermore, adolescents who report more emotional distress in response to experiences of weight-based teasing are more likely to cope with teasing by avoiding school activities, including physical activities and going to physical education class.⁷⁰ These findings raise additional concerns in light of recent research showing that as many as 85% of high school students report witnessing weight-based teasing toward their peers during gym class at school.¹⁹

Worsening Obesity

Emerging research has demonstrated associations between weight-based teasing and increased body weight status in youth. One study found that compared with girls who did not experience weight stigmatization, girls reporting previous experiences of weight stigmatization had a 64% to 66% increased risk of developing and/or worsening overweight or obesity.^{76,77} During adolescence, teasing and hurtful weight labels from family members may be especially harmful; evidence from a diverse sample of girls found greater odds of obesity as a result of stigmatization from family members than from friends and teachers.⁷⁸ Recent longitudinal evidence additionally shows that weight-based teasing experienced by girls and boys in adolescence predicts higher BMI and obesity for both women and men 15 years later.⁷⁹ In addition, several recent longitudinal studies of adults have found that perceived weight stigma and discrimination increase the risk of developing and continuing to have obesity over time even after controlling for baseline BMI, sex, race, and socioeconomic factors.^{80,81} Furthermore, emerging research reports that perceived pressure to be thin in adolescence is associated with

a greater elevation of fasting insulin and poorer insulin sensitivity. The negative effect of emotional pressure on hyperinsulinemia was sustained even after controlling for fat mass and adiposity.⁸² Taken together, these findings raise significant concerns about the effects of weight stigma on health behaviors and outcomes of vulnerable youth.

RECOMMENDATIONS

Improving Clinical Practice

The American Academy of Pediatrics recommends that pediatricians engage in efforts to mitigate weight stigmatization at the practice level and beyond. The following recommendations offer practice-level strategies for pediatricians.

1. **Role Modeling.** It is important for pediatricians and pediatric health care professionals to demonstrate and model professional behavior with colleagues, staff, and trainees that is supportive and nonbiased toward children and families with obesity. These efforts should include the recognition and acknowledgment of the complex etiology of obesity, including genetic and socioeconomic factors, environmental contributors, community assets, family and cultural traditions, and individual choices. This recognition can help dispel common assumptions and stereotypes that place blame and judgment solely on individuals for having excess weight or difficulties achieving weight loss.
2. **Language and Word Choice.** It is important for pediatricians and pediatric health care professionals to use appropriate, sensitive, and nonstigmatizing language in communication about weight with youth, families, and other members of the pediatric health care team. Words can heal or harm, intentionally and unintentionally. Recent evidence

shows that neutral words like “weight” and “body mass index” are preferred by adolescents with overweight and obesity, whereas terms like “obese,” “extremely obese,” “fat,” or “weight problem” induce feelings of sadness, embarrassment, and shame if parents use these words to describe their children’s body weight.^{83,84} Furthermore, using people-first language is one step to help reduce the use of potentially stigmatizing language, and it is now emerging as the preferred standard with obesity as well as other diseases and disabilities. People-first language places the individual first before the medical condition or disability and involves using phrases such as “a child with obesity” rather than an “obese child.”

3. **Clinical Documentation.** Obesity is a medical diagnosis with real health consequences, so it is important for children and families to understand the current and future health risks associated with the degree to which a patient weighs more than what is healthy. However, this should be addressed with a balanced and empathetic approach so that the information is conveyed and understood in a sensitive and supportive manner. Using more neutral terms, such as “unhealthy weight” and “very unhealthy weight,” both in clinical notes and when speaking to patients and family members can assist in these efforts. Electronic health records and medical coding nomenclature could consider using the terms “unhealthy weight” and “very unhealthy weight” instead of “obesity” and “morbid obesity” in problem lists to further support the use of patient-sensitive language during clinical encounters.
4. **Behavior Change Counseling.** Beyond specific word choice, it is recommended that

patient-centered, empathetic behavior change approaches, such as motivational interviewing, be used as a framework to support patients and families in making healthy changes.^{85–87} Through motivational interviewing, health care professionals collaboratively engage the patient and/or parents in determining their goals and addressing barriers to how they will achieve sustained health behavior change.

5. **Clinical Environment.** Pediatricians should create a safe, welcoming, and nonstigmatizing clinic space for youth with obesity and their families. This requires creating a supportive practice setting that accommodates patients of diverse body sizes, from the clinic entrance to the examination room (see Appendix 1).
6. **Behavioral Health Screening.** Addressing weight stigma in clinical practice also necessitates that pediatricians assess patients not only for physical but also emotional comorbidities and negative exposures associated with obesity, including bullying, low self-esteem, poor school performance, depression, and anxiety.^{88–90} These are often overlooked but can be signs a child is experiencing weight-based bullying.

Advocating Against Weight Stigma

Creating a healthy environment in which patients live is critical to effectively address and prevent obesity. As part of these efforts, it is important to promote an environment that supports and empowers youth and families to be healthy rather than reinforcing societal shame or stigma directed toward those with obesity. Thus, pediatricians can be important advocates to reduce weight stigma in multiple settings.

1. **Schools.** Pediatricians can work with schools to ensure antibullying policies include protections for students who are bullied about their weight. Given that weight-based bullying is often absent in school policies, advocacy efforts by health care professionals could play an important role in reducing such bullying.
2. **Youth-Targeted Media.** It is important that pediatricians and pediatric health care professionals advocate for a responsible and respectful portrayal of individuals with obesity in the media. By speaking out (eg, opinions and commentaries, letters to editors, professional presentations, or commenting on social media) against stigmatizing depictions in the media, pediatric health care professionals can help increase the awareness of weight stigma that can be particularly damaging to children and can reinforce broader societal stigma.
3. **Provider Training.** It is important for pediatricians and professional entities to continue to advocate for the inclusion of training to address weight stigma in medical school and residency curricula and through ongoing continuing medical education programs for practicing physicians; and
4. **Parents.** It is important for pediatricians and pediatric health care professionals to work to empower families and patients to manage and address weight stigma in schools, communities, and their homes. Pediatricians can encourage parents of patients to actively inquire with their children’s teachers and school administrative staff to ensure that plans are in place to address weight-based victimization in their institutions. Parents

should also be asked to consider potential weight stigma at home, of which friends and family members can be sources. Finally, because the rates of obesity are higher in communities that are socioeconomically challenged and in communities of color, additional stigma attributable to race, socioeconomic status, and sex could further compound the weight stigma experienced by some individuals, families, and communities.⁹¹

CONCLUSIONS

Obesity is a challenging disease to treat. Many factors are at play, and many of these factors are difficult to effectively address during a short office encounter. The challenges health care professionals may face regarding obesity can affect interactions with patients and unintentionally communicate stigma, blame, or judgment when attempting to increase patient motivation for change. Unfortunately, evidence shows these approaches likely impair rather than improve health behaviors and weight outcomes. In addition, the emotional distress experienced by patients who feel stigmatized can reduce the likelihood of returning for future health care visits.

Supportive health care, community, and educational environments can be sources of strength for patients; however, at present, many of these environments contribute to rather than correct and address damaging weight stigma. Thus, pediatric health care professionals can play an important role in efforts to address the stigmatization of people with obesity and increase the awareness that stigmatizing obesity does not reduce obesity or improve healthful behaviors. By examining their own weight biases, modeling sensitive communication

and behavior to children and families with obesity, and taking steps to address weight stigma with their staff, in their clinic environments, and in the broader communities, pediatric health care professionals can make important shifts in the culture of care for children with obesity. With these concerted efforts to reduce weight stigma, interventions can more effectively help and empower patients to improve their weight-related health.

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APPENDIX 1: RESOURCES FOR PRACTITIONERS AND COMMUNITY MEMBERS TO ADDRESS WEIGHT STIGMA

1. A first step in addressing weight stigma is to become aware of one's own potential attitudes and assumptions about body weight. The University of Connecticut's Rudd Center for Food Policy and Obesity has several evidence-based resources on weight stigma to help health care professionals raise self-awareness of personal attitudes about obesity, learn how weight stigma can affect patient care, and take actionable steps for personal, clinical, and community change. Resources include educational videos and a free, online continuing medical education course (<http://ruddcentercme.org>).
2. The American Academy of Pediatrics Institute for Healthy Childhood Weight developed the free "ChangeTalk: Childhood Obesity" online resource (<https://go.kognito.com/changetalk>) for providers to learn and practice motivational interviewing skills with interactive avatars and clinical encounters with a patient and parent challenged by obesity.
3. When assessing for a sensitive clinical environment, ask the following types of questions to help identify potential aspects of the clinical office environment in which steps can be taken to address weight stigma. Are the chairs in the waiting room able to support the weight of a patient or parent of high body weight? Do the chairs have arm rests that might prevent a larger parent or patient from being able to comfortably sit down? Are available reading materials for patients supportive of healthy lifestyle changes, or do they inadvertently promote unhealthy body images and fad diets? When a patient is brought back to

the clinic room, is the scale in a private area, and can it accurately weigh a larger patient? Are there blood pressure cuffs that will accommodate and provide an accurate reading on a larger arm? Are there gowns that will allow larger patients to feel comfortable and not overly exposed when they change?

4. The Obesity Action Coalition, The Obesity Society, and the Rudd Center for Food Policy and Obesity published guidelines for the portrayal of individuals with

obesity in the media (<http://www.obesityaction.org/wp-content/uploads/Guidelines-for-Media-Portrayals-of-Individuals-Affected-by-Obesity-2016.pdf>).⁹²

These guidelines include the following sections: (1) Respect Diversity and Avoid Stereotypes; (2) Appropriate Language and Terminology; (3) Balanced and Accurate Coverage of Obesity; and (4) Appropriate Pictures and Images of Individuals Affected by Obesity. Following guidelines like these in health

communication about obesity can help ensure that messages about obesity are respectful and supportive of people with obesity rather than contributing to societal stigma.

5. For useful resources to support parents regarding weight-based bullying at school, visit the University of Connecticut's Rudd Center for Food Policy and Obesity's resources on weight-based bullying (<http://www.ruddrootsparents.org/weight-bias-and-bullying>).

DOI: <https://doi.org/10.1542/peds.2017-3034>

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PEDIATRICS (ISSN Numbers: Print, 0031-4005; Online, 1098-4275).

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FINANCIAL DISCLOSURE: The authors have indicated they have no financial relationships relevant to this article to disclose.

FUNDING: No external funding.

POTENTIAL CONFLICT OF INTEREST: The authors have indicated they have no potential conflicts of interest to disclose.

REFERENCES

1. Ogden CL, Carroll MD, Fryar CD, Flegal KM. Prevalence of obesity among adults and youth: United States, 2011-2014. *NCHS Data Brief*. 2015;(219):1-8
2. Skinner AC, Perrin EM, Skelton JA. Prevalence of obesity and severe obesity in US children, 1999-2014. *Obesity (Silver Spring)*. 2016;24(5):1116-1123
3. Vitolins MZ, Crandall S, Miller D, Ip E, Marion G, Spangler JG. Obesity educational interventions in U.S. medical schools: a systematic review and identified gaps. *Teach Learn Med*. 2012;24(3):267-272
4. Callahan D. Obesity: chasing an elusive epidemic. *Hastings Cent Rep*. 2013;43(1):34-40
5. Puhl R, Suh Y. Health consequences of weight stigma: Implications for obesity prevention and treatment. *Curr Obes Rep*. 2015;4(2):182-190
6. Schwimmer JB, Burwinkle TM, Varni JW. Health-related quality of life of severely obese children and adolescents. *JAMA*. 2003;289(14):1813-1819
7. Andreyeva T, Puhl RM, Brownell KD. Changes in perceived weight discrimination among Americans, 1995-1996 through 2004-2006. *Obesity (Silver Spring)*. 2008;16(5):1129-1134
8. Puhl RM, Heuer CA. The stigma of obesity: a review and update. *Obesity (Silver Spring)*. 2009;17(5):941-964
9. Puhl RM, Peterson JL, Luedicke J. Weight-based victimization: bullying experiences of weight loss treatment-seeking youth. *Pediatrics*. 2013;131(1) Available at: www.pediatrics.org/cgi/content/full/131/1/e1
10. Puhl RM, Heuer CA. Obesity stigma: important considerations for public health. *Am J Public Health*. 2010;100(6):1019-1028
11. Spiel EC, Paxton SJ, Yager Z. Weight attitudes in 3- to 5-year-old children: age differences and cross-sectional predictors. *Body Image*. 2012;9(4):524-527
12. Su W, Di Santo A. Preschool children's perceptions of overweight peers. *J Early Child Res*. 2012;10(1):19-31
13. Lumeng JC, Forrester P, Appugliese DP, Kaciroti N, Corwyn RF, Bradley RH. Weight status as a predictor of being bullied in third through sixth grades. *Pediatrics*. 2010;125(6). Available at: www.pediatrics.org/cgi/content/full/125/6/e1301
14. Patel SL, Holub SC. Body size matters in provision of help: factors related to children's willingness to help overweight peers. *Obesity (Silver Spring)*. 2012;20(2):382-388
15. Griffiths LJ, Wolke D, Page AS, Horwood JP; ALSPAC Study Team. Obesity and bullying: different effects for boys and girls. *Arch Dis Child*. 2006;91(2):121-125
16. Puhl RM, Luedicke J, Heuer C. Weight-based victimization toward overweight adolescents: observations and reactions of peers. *J Sch Health*. 2011;81(11):696-703
17. Bucchianeri MM, Eisenberg ME, Neumark-Sztainer D. Weightism, racism, classism, and sexism: shared forms of harassment in adolescents. *J Adolesc Health*. 2013;53(1):47-53

18. Bradshaw CP, Waasdorp TE, O'Brien LM, Gulemetova M. Teachers' and education support professionals' perspectives on bullying and prevention: findings from a National Education Association Study. *School Psych Rev*. 2013;42(3):280–297
19. Puhl RM, Luedicke J, Depierre JA. Parental concerns about weight-based victimization in youth. *Child Obes*. 2013;9(6):540–548
20. Puhl RM, Latner JD, O'Brien K, Luedicke J, Forhan M, Danielsdottir S. Cross-national perspectives about weight-based bullying in youth: nature, extent and remedies. *Pediatr Obes*. 2015;11(4):241–250 [PubMed](#)
21. Peterson JL, Puhl RM, Luedicke J. An experimental assessment of physical educators' expectations and attitudes: the importance of student weight and gender. *J Sch Health*. 2012;82(9):432–440
22. Zavodny M. Does weight affect children's test scores and teacher assessments differently? *Econ Educ Rev*. 2013;34:135–145
23. Greenleaf C, Weiller K. Perceptions of youth obesity among physical educators. *Soc Psychol Educ*. 2005;8(4):407–423
24. O'Brien KS, Hunter JA, Banks M. Implicit anti-fat bias in physical educators: physical attributes, ideology and socialization. *Int J Obes*. 2007;31(2):308–314
25. Greenleaf C, Martin SB, Rhea D. Fighting fat: how do fat stereotypes influence beliefs about physical education? *Obesity (Silver Spring)*. 2008;16(suppl 2):S53–S59
26. Peters DJ, Jones RJA. Future sport, exercise and physical education professionals' perceptions of the physical self of obese children. *Kinesiology*. 2010;42(1):36–43
27. Puhl RM, Brownell KD. Confronting and coping with weight stigma: an investigation of overweight and obese adults. *Obesity (Silver Spring)*. 2006;14(10):1802–1815
28. Puhl RM, Moss-Racusin CA, Schwartz MB, Brownell KD. Weight stigmatization and bias reduction: perspectives of overweight and obese adults. *Health Educ Res*. 2008;23(2):347–358
29. Klein H, Shiffman KS. Thin is "in" and stout is out" what animated cartoons tell viewers about body weight. *Eat Weight Disord*. 2005;10(2):107–116
30. Klein H, Shiffman KS. Messages about physical attractiveness in animated cartoons. *Body Image*. 2006;3(4):353–363
31. Robinson T, Callister M, Jankoski T. Portrayal of body weight on children's television sitcoms: a content analysis. *Body Image*. 2008;5(2):141–151
32. Throop EM, Skinner AC, Perrin AJ, Steiner MJ, Odulana A, Perrin EM. Pass the popcorn: "obesogenic" behaviors and stigma in children's movies. *Obesity (Silver Spring)*. 2014;22(7):1694–1700
33. Eisenberg ME, Carlson-McGuire A, Gollust SE, Neumark-Sztainer D. A content analysis of weight stigmatization in popular television programming for adolescents. *Int J Eat Disord*. 2015;48(6):759–766
34. Roberts DF, Foehr UG, Rideout V. *Generation M: Media in the Lives of 8-18 Year-Olds*. Menlo Park, CA: Henry J. Kaiser Family Foundation; 2005
35. Latner JD, Rosewall JK, Simmonds MB. Childhood obesity stigma: association with television, videogame, and magazine exposure. *Body Image*. 2007;4(2):147–155
36. Phelan SM, Burgess DJ, Yeazel MW, Hellerstedt WL, Griffin JM, van Ryn M. Impact of weight bias and stigma on quality of care and outcomes for patients with obesity. *Obes Rev*. 2015;16(4):319–326
37. Sabin JA, Marini M, Nosek BA. Implicit and explicit anti-fat bias among a large sample of medical doctors by BMI, race/ethnicity and gender. *PLoS One*. 2012;7(11):e48448
38. Huizinga MM, Bleich SN, Beach MC, Clark JM, Cooper LA. Disparity in physician perception of patients' adherence to medications by obesity status. *Obesity (Silver Spring)*. 2010;18(10):1932–1937
39. Gudzone KA, Beach MC, Roter DL, Cooper LA. Physicians build less rapport with obese patients. *Obesity (Silver Spring)*. 2013;21(10):2146–2152
40. Gudzone KA, Bennett WL, Cooper LA, Bleich SN. Patients who feel judged about their weight have lower trust in their primary care providers. *Patient Educ Couns*. 2014;97(1):128–131
41. Davis-Coelho K, Waltz J, Davis-Coelho B. Awareness and prevention of bias against fat clients in psychotherapy. *Prof Psychol Res Pr*. 2000;31(6):682–684
42. Eyal N. Denial of treatment to obese patients—the wrong policy on personal responsibility for health. *Int J Health Policy Manag*. 2013;1(2):107–110
43. Amy NK, Aalborg A, Lyons P, Keranen L. Barriers to routine gynecological cancer screening for White and African-American obese women. *Int J Obes*. 2006;30(1):147–155
44. Puhl RM, Peterson JL, Luedicke J. Parental perceptions of weight terminology that providers use with youth. *Pediatrics*. 2011;128(4). Available at: www.pediatrics.org/cgi/content/full/128/4/e786
45. Volger S, Vetter ML, Dougherty M, et al. Patients' preferred terms for describing their excess weight: discussing obesity in clinical practice. *Obesity (Silver Spring)*. 2012;20(1):147–150
46. Puhl R, Peterson JL, Luedicke J. Motivating or stigmatizing? Public perceptions of weight-related language used by health providers. *Int J Obes*. 2013;37(4):612–619
47. Cohen ML, Tanofsky-Kraff M, Young-Hyman D, Yanovski JA. Weight and its relationship to adolescent perceptions of their providers (WRAP): a qualitative and quantitative assessment of teen weight-related preferences and concerns. *J Adolesc Health*. 2005;37(2):163
48. Neumark-Sztainer D. Preventing obesity and eating disorders in adolescents: what can health care providers do? *J Adolesc Health*. 2009;44(3):206–213
49. Glickman D, Parker L, Sim LJ, Del Valle Cook H, Miller EA, eds. *Accelerating Progress in Obesity Prevention: Solving the Weight of the Nation*. Washington, DC: National Academies Press; 2012
50. Appel LJ, Clark JM, Yeh HC, et al. Comparative effectiveness of weight-loss interventions in clinical practice. *N Engl J Med*. 2011;365(21):1959–1968

51. Hopkins KF, Decristofaro C, Elliott L. How can primary care providers manage pediatric obesity in the real world? *J Am Acad Nurse Pract.* 2011;23(6):278–288
52. Kushner RF, Zeiss DM, Feinglass JM, Yelen M. An obesity educational intervention for medical students addressing weight bias and communication skills using standardized patients. *BMC Med Educ.* 2014;14:53
53. Matharu K, Shapiro JF, Hammer RR, Kravitz RL, Wilson MD, Fitzgerald FT. Reducing obesity prejudice in medical education. *Educ Health (Abingdon).* 2014;27(3):231–237
54. O'Brien KS, Puhl RM, Latner JD, Mir AS, Hunter JA. Reducing anti-fat prejudice in preservice health students: a randomized trial. *Obesity (Silver Spring).* 2010;18(11):2138–2144
55. Persky S, Eccleston CP. Impact of genetic causal information on medical students' clinical encounters with an obese virtual patient: health promotion and social stigma. *Ann Behav Med.* 2011;41(3):363–372
56. Poustchi Y, Saks NS, Piasecki AK, Hahn KA, Ferrante JM. Brief intervention effective in reducing weight bias in medical students. *Fam Med.* 2013;45(5):345–348
57. Swift JA, Tischler V, Markham S, et al. Are anti-stigma films a useful strategy for reducing weight bias among trainee healthcare professionals? Results of a pilot randomized control trial. *Obes Facts.* 2013;6(1):91–102
58. Bucchianeri MM, Eisenberg ME, Wall MM, Piran N, Neumark-Sztainer D. Multiple types of harassment: associations with emotional well-being and unhealthy behaviors in adolescents. *J Adolesc Health.* 2014;54(6):724–729
59. Eisenberg ME, Neumark-Sztainer D, Haines J, Wall M. Weight-teasing and emotional well-being in adolescents: longitudinal findings from Project EAT. *J Adolesc Health.* 2006;38(6):675–683
60. Hayden-Wade HA, Stein RI, Ghaderi A, Saelens BE, Zabinski MF, Wilfley DE. Prevalence, characteristics, and correlates of teasing experiences among overweight children vs. non-overweight peers. *Obes Res.* 2005;13(8):1381–1392
61. Jensen CD, Steele RG. Body dissatisfaction, weight criticism, and self-reported physical activity in preadolescent children. *J Pediatr Psychol.* 2009;34(8):822–826
62. Puhl RM, Latner JD. Stigma, obesity, and the health of the nation's children. *Psychol Bull.* 2007;133(4):557–580
63. Eaton DK, Lowry R, Brener ND, Galuska DA, Crosby AE. Associations of body mass index and perceived weight with suicide ideation and suicide attempts among US high school students. *Arch Pediatr Adolesc Med.* 2005;159(6):513–519
64. Eisenberg ME, Neumark-Sztainer D, Story M. Associations of weight-based teasing and emotional well-being among adolescents. *Arch Pediatr Adolesc Med.* 2003;157(8):733–738
65. Goldfield G, Moore C, Henderson K, Buchholz A, Obeid N, Flament M. The relation between weight-based teasing and psychological adjustment in adolescents. *Paediatr Child Health.* 2010;15(5):283–288
66. Strauss RS, Pollack HA. Social marginalization of overweight children. *Arch Pediatr Adolesc Med.* 2003;157(8):746–752
67. Quick VM, McWilliams R, Byrd-Bredbenner C. Fatty, fatty, two-by-four: weight-teasing history and disturbed eating in young adult women. *Am J Public Health.* 2013;103(3):508–515
68. Puhl RM, Leudick J. Weight-based victimization among adolescents in the school setting: emotional reactions and coping behaviors. *J Youth Adolesc.* 2012;41(1):27–40
69. King KM, Puhl RM, Luedicke J, Peterson JL. Eating behaviors, victimization, and desire for supportive intervention among adolescents in weight-loss camps. *Eat Behav.* 2013;14(4):484–487
70. Puhl RM, Luedicke J. Weight-based victimization among adolescents in the school setting: emotional reactions and coping behaviors. *J Youth Adolesc.* 2012;41(1):27–40
71. Haines J, Neumark-Sztainer D, Eisenberg ME, Hannan PJ. Weight teasing and disordered eating behaviors in adolescents: longitudinal findings from Project EAT (Eating among teens). *Pediatrics.* 2006;117(2). Available at: www.pediatrics.org/cgi/content/full/117/2/e209
72. Olvera N, Dempsey A, Gonzalez E, Abrahamson C. Weight-related teasing, emotional eating, and weight control behaviors in Hispanic and African American girls. *Eat Behav.* 2013;14(4):513–517
73. Losekam S, Goetzky B, Kraeling S, Rief W, Hilbert A. Physical activity in normal-weight and overweight youth: associations with weight teasing and self-efficacy. *Obes Facts.* 2010;3(4):239–244
74. Slater A, Tiggemann M. Gender differences in adolescent sport participation, teasing, self-objectification and body image concerns. *J Adolesc.* 2011;34(3):455–463
75. Greenleaf C, Petrie TA, Martin SB. Relationship of weight-based teasing and adolescents' psychological well-being and physical health. *J Sch Health.* 2014;84(1):49–55
76. Haines J, Kleinman KP, Rifas-Shiman SL, Field AE, Austin SB. Examination of shared risk and protective factors for overweight and disordered eating among adolescents. *Arch Pediatr Adolesc Med.* 2010;164(4):336–343
77. Quick V, Wall M, Larson N, Haines J, Neumark-Sztainer D. Personal, behavioral and socio-environmental predictors of overweight incidence in young adults: 10-yr longitudinal findings. *Int J Behav Nutr Phys Act.* 2013;10(1):37
78. Hunger JM, Tomiyama AJ. Weight labeling and obesity: a longitudinal study of girls aged 10 to 19 years. *JAMA Pediatr.* 2014;168(6):579–580
79. Puhl RM, Wall MM, Chen C, Bryn Austin S, Eisenberg ME. Experiences of weight teasing in adolescence and weight-related outcomes in adulthood: a 15-year longitudinal study. *Prev Med.* 2017;100:173–179
80. Jackson SE, Beeken RJ, Wardle J. Perceived weight discrimination and changes in weight, waist circumference, and weight status. *Obesity (Silver Spring).* 2014;22(12):2485–2488

81. Sutin AR, Terracciano A. Perceived weight discrimination and obesity. *PLoS One*. 2013;8(7):e70048
82. Schvey NA, Shomaker LB, Kelly NR, et al. Pressure to be thin and insulin sensitivity among adolescents. *J Adolesc Health*. 2016;58(1):104–110
83. Puhl RM, Himmelstein MS, Armstrong SC, Kingsford E. Adolescent preferences and reactions to language about body weight. *Int J Obes (Lond)*. 2017;41(7):1062–1065
84. Kyle TK, Puhl RM. Putting people first in obesity. *Obesity (Silver Spring)*. 2014;22(5):1211
85. Motivational Interviewing Network of Trainers. Motivational interviewing. Available at: www.motivationalinterviewing.org/. Accessed September 12, 2017
86. Barlow SE; Expert Committee. Expert committee recommendations regarding the prevention, assessment, and treatment of child and adolescent overweight and obesity: summary report. *Pediatrics*. 2007;120(suppl 4):S164–S192
87. Broccoli S, Davoli AM, Bonvicini L, et al. Motivational interviewing to treat overweight children: 24-month follow-up of a randomized controlled trial. *Pediatrics*. 2016;137(1):1–10
88. Cinelli RL, O’Dea JA. Obesity prevention programs in children: impact on weight, shape and food concern. *Curr Obes Rep*. 2016;5(1):88–96
89. Halfon N, Larson K, Slusser W. Associations between obesity and comorbid mental health, developmental, and physical health conditions in a nationally representative sample of US children aged 10 to 17. *Acad Pediatr*. 2013;13(1):6–13
90. Hertz MF, Everett Jones S, Barrios L, David-Ferdon C, Holt M. Association between bullying victimization and health risk behaviors among high school students in the United States. *J Sch Health*. 2015;85(12):833–842
91. Frederick CB, Snellman K, Putnam RD. Increasing socioeconomic disparities in adolescent obesity. *Proc Natl Acad Sci USA*. 2014;111(4):1338–1342
92. Guidelines for Media Portrayals of Individuals Affected by Obesity. 2014. Available at: www.obesityaction.org/wp-content/uploads/Guidelines-for-Media-Portrayals-of-Individuals-Affected-by-Obesity-2016.pdf. Accessed September 20, 2017

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Pediatrics originally published online November 20, 2017;

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OFFICIAL JOURNAL OF THE AMERICAN ACADEMY OF PEDIATRICS

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