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Weight stigma and its impact on paediatric care

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Abstract

Purpose of review—This review aims to evaluate current research findings relevant to weight stigmatization, to acknowledge the deleterious impact it has on the health of the paediatric population and to provide insight to optimize future guidelines for the treatment of individuals with overweight and obesity.

Recent findings—Obesity prevalence continues to rise in the USA with estimates in children from ages 2–19 years of 18.5%, an all-time high. With the increase in obesity, there has been a concomitant increase in weight stigma, which affects both youth and general population across varied levels of socioeconomic status and body sizes.

Summary—Weight stigma is a contributing phenomenon to the current obesity epidemic, as individuals with stigmatized experiences (weight-based teasing, bullying, victimization) have increased risks for acquiring adverse health outcomes that encompass the physical, behavioural and psychological. Weight stigma can also lead affected individuals to internalize such experiences which decrease their overall quality of life. Sources of stigma may come from peers, family, educators, media, as well as healthcare professionals, as highlighted in this review. Efforts to establish prevention and treatment strategies for weight stigma may generate further traction to help improve global obesity rates.

Video abstract—<http://links.lww.com/COE/A15>

Keywords

bias; obesity; paediatric; stigma; weight

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Conflicts of interest

The authors declare no conflicts of interest.

INTRODUCTION

Obesity, a chronic disease with multiple biopsychosocial factors, has become an unrelenting epidemic over the past four decades. Weight stigmatization is experienced by persons across sociodemographic and physical characteristics. Stigmatized experiences can be weight-based teasing, bullying or victimization, which produce adverse health outcomes. These health outcomes associated with overweight and obesity are significant to consider when treating the paediatric population.

PREVALENCE OF OBESITY AND IMPORTANCE OF WEIGHT STIGMA

The National Health and Nutrition Examination Survey (NHANES) is utilized to determine U.S. obesity prevalence. Obesity in youth aged 2–19 years is classified as having a BMI at least the 95th percentile of BMI-levels specific for sex and age [1]. In paediatric populations, obesity prevalence was found to plateau between 2005 and 2013. However, the 2016 NHANES survey had paediatric rates reach an all-time high of 18.5% [1]. This prevalence of obesity of 18.5% is significantly high compared to other chronic conditions.

Weight-based stigmatization is defined as negative beliefs and experiences projected upon an individual that include teasing and discrimination based on that individual's weight [2]. Weight stigma can produce polarizing inequities observed in the personal and professional relationships of individuals, as they can be associated with negative character attributions. Weight stigma can also manifest as social avoidance, stereotyping and victimization, and is observed as early as toddlerhood, increasing the urgency to screen for it in paediatric populations [2]. Currently, there is a cultural belief in western nations that perpetuating weight stigma will propel an individual to lose weight. However, weight stigma causes persons with overweight or obesity to internalize their experience, and does not lead to weight loss. This constructed phenomenon, introduced by Puhl *et al.* [2] as weight bias internalization (WBI), is influenced by individuals' weight status, weight loss attempts and irregular diet. Although research in WBI is relatively novel, studies have shown that WBI secondary to weight stigma is observed across a range of BMI and SES levels. Of the three representative samples surveyed by Puhl *et al.* [2], 44% of participants manifested WBI, which most severely affected white women with lower income. It is important to acknowledge who is at risk for high WBI to provide effective clinical support and prevent further stress in younger patients.

WEIGHT-BASED STIGMATIZATION IN THE GENERAL POPULATION

Puhl *et al.* [2] confirmed that weight stigma is common in the US. White women who are of low-income appear to be most vulnerable [2]. One study evaluated the extent of weight stigma via multinational comparisons; this assessment found that weight bias was consistent across the USA, Canada, Australia and Iceland, countries that share commonalities in overweight and obesity rates and sociocultural ideals of thinness [3]. This study also found higher levels of antifat attitudes in participants who believe that behaviour, not entities such as genetics and SES, was the sole reason for obesity [3].

WEIGHT-BASED STIGMATIZATION IN YOUTH

It is crucial to address and reduce weight-based stigmatization, as this may lead to increased obesity and associated comorbidities. Young individuals with obesity, like adults, might be perceived as sloppy and sedentary, which fosters a hostile environment for youth. Kyle *et al.* [4[■]] highlighted that weight stigma impedes progress in eradicating obesity, yet policies addressing obesity prevention neglect the concerns of youth. Unfortunately, awareness campaigns perpetuate weight stigma by using weight-biased messages and halting screening programmes intended to address this issue. In school, children with a high BMI are most vulnerable to verbal and physical victimization by fellow students [5[■]]. Several studies have explored the development of obesity bias in children [5[■],6[■],7,8]. Ruffman *et al.* [9[■]] found bias onset as early as toddlerhood at 32 months. Toddlers' preferences for looking at average-looking figures versus those who were 'fat', were influenced by maternal attitudes [9[■]]. Supporting evidence found that bias was observed in preschool, which continued to develop strongly as students entered later childhood (8–11 years old) [10]. Regarding body image, children with obesity were found to inaccurately perceive their body sizes compared to measured BMI; this is reflective of the ideals of thinness and their reluctance to self-identify with stigmatized weight categories [6[■],7]. Bullying and teasing occur regardless of race, family SES and academic achievement [8]. The effects of weight labelling are also detrimental to individuals with obesity, as studies have reported adolescents experience sadness and embarrassment from certain terminology, highlighting the emotional impact of weight-based words [11[■],12]. It is not just in explicit situations, but rather in daily life, that terminology can affect the quality of life of adolescents with obesity.

WEIGHT BIAS AND PARENTAL INFLUENCE

Weight bias by parents and educators, as either implicit or explicit attitudes, may affect the emotional and physical development of children. Although those who exhibit explicit bias overtly stereotype individuals with obesity as lazy or incompetent, those who exhibit implicit bias may unintentionally communicate judgement or victimization [13[■]]. Studies report that weight status of youth negatively impacted caregivers' perceptions in the capacity of individuals' physical, social and academic abilities [13[■],14[■],15]. Parents were also found to exhibit implicit bias, matching 'fat and bad' versus its positive counterpart, suggesting that parents and educators play pivotal roles in the socialization of children and are, thus, influential in transmitting weight bias to children [13[■],14[■]]. In one Australian study, strong implicit and explicit bias from health and physical education teachers were reported, due to a lack of concrete inclusivity training [15]. Not only does weight stigma hinder students from participating in physical activity, but it also impacts their social development and psychological well being [15]. Indeed, children with overweight or obesity are more likely to experience additional prejudice and negative attributions from teachers, which further compound the likelihood for adverse health outcomes.

WEIGHT BIAS IN THE MEDIA

Multiple studies assessed weight bias among popular television programming and film, especially those geared to youth. A recent study found a recurring presence of obesity-

promoting content and verbal insults about body sizes [16^{■■■}]. This negative portrayal of overweight and obesity influences young viewers of the presumed societal acceptability of such behaviour. Children's movies rarely exposed the harmful outcomes of unhealthy eating, which may mislead viewers to mimic obesogenic behaviour without any negative expectations [17]. Weight-loss reality shows like *The Biggest Loser* also reinforce obesity stereotypes, as viewers produced a stronger dislike of individuals with excess weight after viewing only one episode [18]. Online social media has played a large role in the development of sociocultural ideals for youth exposed to internet use [19^{■■■}]. A recent study assessed weight stigma in anonymous comments in the video-sharing web-site, *YouTube*. Verbal attacks were found in videos depicting individuals with overweight or obesity [19^{■■■}]. Although these videos provide an avenue for discussing obesity, results have shown more aggressive messages against individuals with excess weight. Health education campaigns may also create negative health outcomes through weight stigma, as findings show prominent usage of weight-stigmatizing imagery [20,21]. Positive media portrayals of persons with obesity can promote health education without contributing to weight stigma [22].

ADVERSE HEALTH OUTCOMES OF PERSONS WITH OBESITY

Stigmatized individuals have increased risks for acquiring adverse health outcomes that encompass the physical, behavioural and psychological. A 15-year prospective study explored weight-based teasing in adolescents, which lead to high BMI, binge eating, difficulty in controlling weight and low self-esteem in adulthood [23^{■■■}]. Supporting research found that stigmatized individuals have heightened risks for WBI and adopting antifat perceptions; additional outcomes include anxiety and substance abuse [24[■],25^{■■■}, 26^{■■■},27[■],28[■]]. Among the psychiatric comorbidities observed, major depressive disorder (MDD) was most consistently reported with obesity [25^{■■■}]. WBI can not only add insult to the mental health of individuals, but it may also further physiological stress [29–32]. Pearl *et al.* [26^{■■■}] found WBI as a risk factor for cardiometabolic syndrome, which can lead to diabetes, heart disease and stroke. In addition, weight stigma and high BMI decrease probability of individuals to seek healthcare. Experienced and internalized weight stigma can lead to a shameful body image and low self-esteem, which lead to healthcare stress and avoidance [33^{■■■}]. Further avoidance of healthcare may accumulate and contribute to the aforementioned adverse health outcomes.

MEDICAL TRAINEES AND WEIGHT BIAS

Medical education has been shown to contribute to weight bias among students and is well positioned to mitigate bias through intervention. In a survey of over 4000 medical students, nearly three-fourth of students displayed implicit bias and roughly two-third exhibited explicit bias [34]. The characterization of both high explicit and implicit bias is unlike that seen with racism, wherein implicit bias is much more prevalent than explicit bias, suggesting that educational interventions to reduce weight stigma must uniquely tackle both forms of bias. Medical students with lower BMI, male sex and medical specialties as opposed to primary care were more likely to display bias [34].

Explicit weight bias, in particular, has been shown to increase on average during medical school, despite reductions in implicit bias over the same time [35]. The increase in bias in medical students is secondary to minimal positive associations with patients who have obesity and increased by exposure to instances of discrimination and/or negative remarks by faculty towards these patients. These data, in particular, suggest that medical schools have agency in reducing weight bias among their students by facilitating positive interactions with patients and by teaching medical educators about weight stigma prevalence, and how to actively combat stereotypes when instructing [35,36]. Such an obesity curriculum was implemented amongst a group of paediatric residents, who subsequently showed significant improvement in weight bias scores [36].

Other healthcare professional trainees such as student nurses have also been shown to display negative attitudes towards patients with obesity [37]. A recent study focused on the possible role of 'bariatric empathy suits' to make the daily experience of living with obesity more tangible to nurses, and subsequently improve attitude. The students undergoing the simulation showed improvements in their attitude and support of patients with obesity.

HEALTHCARE PROFESSIONALS AND WEIGHT BIAS

Obesity medicine specialists, the primary healthcare providers for patients with obesity, were assessed between 2001 and 2013 to determine whether they demonstrated implicit and explicit weight bias. Over the 12-year period, obesity medicine specialists had an increase in explicit despite reductions in implicit bias [38]. Weight bias among healthcare professionals can influence how providers view their patients, which in turn affects behaviour and judgement when they provide treatment [39]. Such changes can reduce quality of care patients with obesity receive, which may then influence whether patients seek appropriate care and/or limit proper adherence to prescribed treatment regimens. Thus, weight bias can diminish care quality irrespective of the provider's intent. This is evident from the first touchpoints patients have with providers. Women deemed overweight in initial screening by a health-care professional were more likely to be distressed about weight and body shape, suggesting a lack of support for patients to facilitate progress [40].

Furthermore, providers who explicitly stereotype patients with obesity as 'lazy' and 'weak' are more likely to ascribe lack of treatment progress to poor adherence [39]. Such providers may be less likely to set aside time to talk about the factors contributing to the patients' obesity and poor health. In a study of primary care physicians (PCPs), those interacting with patients with obesity spent less time with the patient than those interacting with individuals with normal weight, and more often felt that the session was wasted time. In addition, providers who harbour negative attitudes towards obesity are more likely to misattribute the extent of a patient's health problems to their obesity rather than explore diagnostics and treatment options for improving the patient's primary and secondary conditions. Specifically, in regard to treatment of diabetes, weight bias among healthcare providers such as PCPs and endocrinologists has led to confusion of treatments for diabetes and obesity, thereby leading to insufficient diabetes care [41]. Indeed, the American Diabetes Association's Standards of Medical Care in Diabetes in 2015 designated reduced weight bias as essential for diabetes outcome improvement.

WEIGHT BIAS IN PAEDIATRIC SETTINGS

Recent studies have begun to assess weight bias among providers in paediatric clinics. Both paediatric nurses and support staff were shown to have weight bias [42[■]]. Those who more frequently cared for patients with obesity were more likely to believe that the condition is controllable, suggesting increased patient interaction may incline nurses to attribute obesity to patient volition. Support staff individuals felt that caring for children with obesity was a negative experience. In addition, language used in the paediatric setting has been shown to affect adolescent willingness to trust their provider [43[■]]. Adolescents, on average, prefer to describe overweightness with words such as ‘BMI, plus size, and weight problem’ instead of ‘obese, fat, and large’ [43[■]]. Despite these findings, word preferences were variable depending on BMI, sex and degree to which the patient has internalized their weight. These findings suggest that appropriate terminology usage when discussing weight with adolescents is an important first step when delivering effective care.

IMPROVING STRATEGIES FOR PREVENTING WEIGHT BIAS

A recent systematic review of weight bias interventions shows a lack of methodologically sound, long-term interventional strategies, suggesting that more robust trials with properly randomized designs are needed to understand which combination of interventional strategies should be adopted to meaningfully reduce weight bias [44[■]]. There are several promising strategies to explore to reduce weight bias. Firstly, providers should empower patients with obesity in the clinical setting, so they feel less threatened by the prospect of weight bias by creating a physical space and hospital culture that promotes respectful language, diversity and zero-tolerance for weight discrimination [39]. Secondly, educational interventions for providers that acknowledge the detrimental effects of weight stigma in healthcare should be implemented throughout a healthcare professional’s career [39]. Third, communication should be patient-centred and condition-focused rather than directly related to weight loss in order to improve motivation and treatment adherence [39].

Furthermore, educational interventions that emphasize the complexity of obesity and highlight its genetic and environmental contributors would help reduce explicit bias, steer providers away from placing excessive blame on the patient for their weight and promote increased use of interdisciplinary teams [45]. Implicit bias can be tackled by making healthcare professionals aware of the ways in which unconscious attitudes can hinder effective care. This may then influence providers to undergo further interventions, such as exposure to counter-stereotypical cases, empathy exercises and stress reduction tactics during patient interactions [41[■]].

The evidence for the effect of community-based obesity interventions on mental health is lacking. It is extremely likely that weight bias has inhibited proper tailoring of treatment modalities for adolescents. Evaluation for effective treatment for adolescents, combined with innovative use of nonphysician healthcare professionals, especially at the community-level, may help deliver more unbiased care to adolescents [45]. Interventions in the community aimed to reduce adolescent obesity must more frequently include measures of mental health to better understand how psychological consequences of obesity are influencing weight-

reduction outcomes, and to understand whether community interventions are harming adolescent mental health [46].

Lastly, we support the use of people-first language in clinical and literature settings when discussing patients with obesity. People-first language aims to avoid reducing patient identity to their obesity, and subsequently aims to mitigate weight bias by acknowledging the individual prior to their condition (i.e. describing a ‘person with obesity’ rather than ‘obese’) [47]. Such language is the standard for many disease areas, but proper usage for obesity is lacking. Thus, emphasis for the use of people-first language should be incorporated into any intervention aiming to reduce weight bias.

CONCLUSION

As one of numerous factors that impact obesity, weight stigma is observed across a wide spectrum from subtle judgement to overt bullying and has been shown to produce adverse biopsychosocial outcomes. With youth obesity rates at its highest, it is of paramount importance to reduce weight stigma and provide nonbiased empathetic care to paediatric patients. A multitude of promising community-based patient-centred prevention methods are available, yet further innovations are necessary to understand which combination of interventional strategies will meaningfully reduce weight stigma and subsequently obesity. For now, addressing and reducing weight stigma in clinical settings is an important step to improving the healthcare experience of persons with overweight or obesity.

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■ of special interest

■ ■ of outstanding interest

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KEY POINTS

- Weight-based stigmatization consists of implicit or explicit teasing, bullying or victimization that greatly contributes to the growing obesity epidemic.
- Peers, family, educators and media are immensely influential in transmitting weight stigma to children, perpetuating an adverse cycle of weight stigma and obesity.
- Weight stigma, and its internalization, has been shown to produce harmful physiological, behavioural and psychological outcomes in impacted individuals.
- Explicit and implicit weight bias is observed among physicians, nursing staff and medical trainees, which diminish the quality of care received by patients with overweight and obesity.