

Weight-Based Disparities in Youth Mental Health: Scope, Social Underpinnings, and Policy Implications

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Abstract

Weight-based disparities in mental health impair the well-being of youth with overweight and obesity, who comprise a growing majority of young people in the United States. This review summarizes research regarding the extent of weight-based disparities in youth mental health and describes the social underpinnings of these disparities across contexts. Youth with high weight face frequent stigmatization (e.g., bullying, victimization, negative judgment), particularly in the school setting. Weight-based disparities in youth mental health emerge not because of high body weight itself, but because of the stigma associated with having high body weight. As such, policy actions need to address weight stigma. Empirical evidence can inform sound policies to reduce the stigma experienced by youth with high weight in order to support equitable mental health outcomes for youth with diverse body sizes.

Keywords

weight stigma, youth, mental health, policy, schools

Tweet

To support equitable mental health outcomes for youth with diverse body sizes, empirically informed policy needs to address weight-related teasing and bullying.

Key Points

1. Weight-based mental health disparities among youth emerge due to the stigma associated with high weight.
2. Youth with high weight are disproportionately teased, bullied, and unfairly judged—particularly in the school setting—which contributes to the development of psychological and emotional distress.
3. Policy action to address and reduce weight stigma is critical to support equitable mental health outcomes for youth with diverse body sizes.
4. Policymakers should (1) strengthen local and federal anti-bullying policies to protect youth from being bullied about their weight; (2) increase funding for schools to address weight stigma; and (3) advocate for the adoption of school wellness programs that emphasize health, rather than weight.

Weight-based disparities in mental health have detrimental implications for the growing proportion of American youth with overweight and obesity (Ogden et al., 2020), contributing to life course inequalities (Elder, 1998; Wadsworth, 1997). Granted, high body weight links to psychological distress in youth; but, the disproportionate mental health

struggles among youth with overweight and obesity emerge due to the stigma associated with having high weight, rather than weight status itself (Russell-Mayhew et al., 2012). Rising rates of overweight and obesity among youth coincide with an increase in societal weight stigma (Charlesworth & Banaji, 2019). The stigmatization of individuals with high weight represents an urgent public health concern to be remedied, in part, through policy action.

To make a case for why policy needs to address the psychological implications of disparate social mistreatment facing youth with high weight, the present article begins by briefly reviewing the prevalence and scope of weight-based disparities in mental health. Subsequently, we describe the social origins of these disparities, with particular attention to the pervasiveness of weight stigma and the internalizing mechanisms linking stigma to compromised mental health. Finally, based on empirical evidence and support from key stakeholders (e.g., parents, teachers), we discuss several approaches to address the stigma faced by youth with high weight and provide policy recommendations that emphasize schools as a primary intervention point.

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Weight-Based Disparities in Youth Mental Health

In general, mental health comorbidities heighten among youth with higher body weight relative to their peers with “normal” body weight. For example, higher weight status has been implicated as a risk factor for youth anxiety (Burke & Storch, 2015), low self-esteem (Friedlander et al., 2003), depression (Kubzansky et al., 2012), and eating disorders (e.g., bulimic disorder; Flament et al., 2015). Rates of self-harming ideation have also been found to be elevated among youth with higher weight; notably, in contrast to a 12% suicide ideation rate for youth with “normal” weight, 20% of those with obesity indicate similar self-harming thoughts (Flament et al., 2015).

The negative association between body weight and youth mental well-being, however, does not emerge consistently across studies. In fact, some studies fail to directly link body mass index (BMI) to emotional distress (Juvonen et al., 2017) or psychopathology diagnosis (e.g., Lamertz et al., 2002), and others indicate that social-emotional challenges develop only in certain environmental contexts (Juvonen et al., 2018). Moreover, prospective studies show that psychological distress (e.g., depression) predicts increased weight gain over time in adolescents, more so than weight status predicting distress (Mannan et al., 2016). Thus, high weight does not guarantee mental health difficulties. As such, it is critical to consider how contextual factors beyond body weight itself account for overarching mental health trends among youth with overweight and obesity. Here, we focus on the social context of weight-based mental health disparities among youth to inform policy action.

Social Origins

Weight stigma—the societal devaluation of individuals with higher body weight—commonly manifests among youth as weight-based teasing, bullying, and discrimination by a range of sources, including peers, teachers, parents, and siblings (Puhl & Latner, 2007; Puhl & Lessard, 2020). Compelling evidence implicates weight stigma, with its documented negative consequences for psychological well-being, as a social mechanism underlying weight-based disparities in youth mental health. To illustrate the social underpinnings of such disparities, we describe first the prevalence of weight stigma, including particular attention to characteristics that may heighten vulnerability to stigmatization, followed by evidence linking high weight and compromised mental health through experienced stigma.

Prevalence of Weight Stigma

Considerable evidence from a multitude of diverse samples underscores the pervasiveness of weight stigma among youth (Bucchianeri et al., 2013; Puhl, Latner, et al., 2016;

Puhl, Luedicke, et al., 2013). Indeed, adolescents and adults alike cite body weight as the most common reason for bullying in youth (Puhl et al., 2011; Puhl, Latner, et al., 2016). More so than harassment for disability, gender, race, or sexual orientation, harassment or bullying for body weight or physical appearance is reported by adolescent girls and boys as the most common form of prejudice-based harassment (Bucchianeri et al., 2016). Community sample investigations indicate that prevalence of weight-based victimization or discrimination ranges from nearly a quarter to nearly half of youth (Bucchianeri et al., 2016; Juvonen et al., 2017; Puhl, Wall, et al., 2017; Salmon et al., 2018), and these experiences are well-documented to occur across environmental contexts, including at school, home, online, and within healthcare settings (Puhl, Wall, et al., 2017; Valois et al., 2019).

Schools in particular represent a primary context for experiences of weight stigma. That is, not only do peers and classmates serve as the main perpetrators of weight-related harassment and mistreatment (Lessard, Lawrence, et al., 2021), but many teachers and school personnel possess negative weight biases (Lessard & Puhl, 2021). Such stigma in turn can cultivate a harmful weight climate wherein youth are exposed to negative weight-related ridicule and social norms that sanction targeted mistreatment of youth with high body weight (Juvonen et al., 2018; Lessard & Juvonen, 2020). Highlighting the ubiquity of weight stigma within schools, evidence suggests that nearly 80% of high school students have witnessed weight-based peer mistreatment at school (Puhl et al., 2011).

Despite the high prevalence of weight stigma overall, certain characteristics and social identities can heighten vulnerability to such negative experiences. For example, from an early age, youth with higher weight are more likely than their peers with “normal” weight to experience both generalized (Morales et al., 2019; Waasdorp et al., 2018) and weight-based victimization or discrimination (Bucchianeri et al., 2016; Juvonen et al., 2017; Koyanagi et al., 2020; Schvey et al., 2019). Populations with elevated rates of overweight and obesity—including sexual and/or gender minorities (SGM; Grammer et al., 2019), youth from marginalized racial/ethnic groups (Fryar et al., 2020), and those from lower socioeconomic status (SES; Williams et al., 2018)—can in turn be at greater risk of experiencing weight stigma. For example, SGM youth, over half of whom report being teased about their weight by peers and family (Puhl et al., 2019), disproportionately contend with weight stigma compared to their heterosexual and cisgender peers (Bucchianeri et al., 2016). Relative to evidence among SGM populations, findings concerning racial/ethnic weight stigma differences are more limited and mixed, with some results suggesting a similar prevalence of weight-based harassment (Juvonen et al., 2017; Puhl, Wall, et al., 2017; Young-Hyman et al., 2006), and others highlighting differential patterns of racial/ethnic variation across studies

(Bucchianeri et al., 2013, 2016). In addition, although studies with samples of diverse SES find weight stigma to be prevalent (McCormack et al., 2011), few directly compare the prevalence across SES, particularly among youth. Given these inconsistencies and limitations, along with the confluence of stigma based on multiple social identities (e.g., Crenshaw, 1990; Meyer, 2003), further investigation into weight stigma experiences among youth possessing marginalized social identities and characteristics is warranted.

Stigma as a Link Between Body Weight and Mental Health Distress

Robust evidence indicates that weight-based disparities in youth mental health can, in large part, be accounted for by weight stigma. Indeed, youth who experience discrimination, teasing, or bullying for their weight are at increased risk of anxiety, depression, low self-esteem, body dissatisfaction, eating pathology, self-harm, and suicidal behaviors, among other negative affective outcomes (Eisenberg et al., 2019; Juvonen et al., 2017; Pearlman et al., 2020; Puhl et al., 2019; Rosenthal et al., 2013; Sutin et al., 2018). In fact, multiple cross-sectional (e.g., Patte et al., 2021) and longitudinal (e.g., Juvonen et al., 2017) studies document that, when considering body weight and weight stigma simultaneously, experiences of stigma are a consistently stronger predictor of youth mental health distress than body weight itself. Moreover, sophisticated statistical models empirically show that links between BMI and mental health distress can in fact be accounted for—or mediated—by the heightened experiences of weight stigma that youth with higher body weight face. For instance, a longitudinal study of ethnically diverse middle school students in California found that higher BMI was indirectly related to the development of social anxiety through elevated levels of weight-based discrimination by peers (Juvonen et al., 2017). Similar evidence among adolescents in Amsterdam found that having been bullied by peers in school mediated the relation between high weight status and psychosocial problems and suicidal thoughts (van Vuuren et al., 2019). Collectively, these findings underscore that the social stigma of high weight—rather than the high weight itself—contributes to negative mental health outcomes.

In light of its robust impact on well-being, why does weight stigma take such a significant toll on mental health? Mental health consequences of weight stigma may be due in part to youth's *weight bias internalization* (WBI). Weight bias internalization is a cognitive and affective process of self-stigma and self-blame by agreeing with negative weight-based stereotypes, applying these to oneself, and devaluing oneself on the basis of societal stigma toward individuals with higher body weight (Durso & Latner, 2008). Not only are levels of WBI higher among youth in increasing body weight categories (Puhl & Himmelstein, 2018) who are more likely to face frequent stigmatization (Bucchianeri

et al., 2016; Juvonen et al., 2017; Koyanagi et al., 2020; Morales et al., 2019; Puhl et al., 2013; Waasdorp et al., 2018), but WBI in turn is associated with greater mental distress (Ciupitu-Plath et al., 2018; Roberto et al., 2012), even after accounting for BMI (Chan et al., 2019). As such, weight-based mental health disparities seem to emerge to the extent that youth have internalized experiences of weight stigma and perceive their bodies to deviate from societal ideals and expectations that emphasize thinness. Indeed, underscoring the role of internalization, recent review evidence indicates that it is the perception of having high weight—rather than the high weight itself—that contributes to compromised mental health (Robinson et al., 2020). These findings parallel earlier evidence that high school students' perceived weight is more strongly linked to suicide ideation than BMI (Eaton et al., 2005).

Taken together, although youth with high body weight may be more likely to experience emotional and psychological distress in general, this association is far from absolute; that is, weight-based disparities in youth mental health arise as a function of the stigma associated with high weight, which leaves youth with overweight and obesity disproportionately teased, bullied, and treated unfairly. Such social mistreatment in turn can initiate a cascade of internalization processes (e.g., self-blame) that compromise mental health.

Policy Implications and Recommendations

The pervasive stigma underlying youth weight-based mental health disparities demands broad-reaching action to reduce weight stigma. The literature supports several policy strategies to address weight stigma. As schools represent a primary context for youth experiences of weight stigma, policy recommendations should target the school setting. First, policies and legislation protecting youth from weight-based bullying would reduce stigma experiences in the school setting. Second, increased funding for schools to address weight stigma would bolster awareness and resources to support youth with diverse body sizes. Third, advocacy for school wellness programs to emphasize health—rather than weight—would promote youth mental and physical well-being. We describe each of these policy strategies below.

Strengthen Local and Federal Anti-Bullying Policies to Protect Youth from Being Bullied About Their Weight

Individuals across diverse backgrounds agree that policies should address weight-based mistreatment experienced by youth. High levels of support from general samples of U.S. adults (Puhl, Luedicke, et al., 2015), parents (Puhl, Suh, et al., 2017), and educators (Puhl, Neumark-Sztainer, et al., 2016) have been documented for weight-based anti-bullying policies and legislation to include explicit protections against bullying based on body weight at the school and state levels. Support for federal legislative action to protect youth from

weight-based bullying also replicates across multiple samples of adults (Puhl & Luedicke, 2014; Puhl, Luedicke, et al., 2015; Puhl, Suh, et al., 2017), with a notable majority of parents agreeing that the government should play a more active role in protecting youth with high weight from discrimination and pass a federal law to prohibit weight-related bullying (Puhl & Luedicke, 2014).

To protect youth from bias-based bullying, most anti-bullying policies currently enumerate key characteristics that place youth at risk for victimization, such as race and disability (Kull et al., 2015). Explicit inclusion of marginalized characteristics (e.g., based on sexual orientation) in policies can minimize bias-based mistreatment and related mental health distress (Saewyc et al., 2014). Yet, despite evidence of the benefits of enumeration, in addition to the overwhelming support for policies to include special protections from weight-based bullying, weight enumeration—or, the inclusion of weight as a protected class—is rare. For example, among a sample of U.S.-based educators, only 37% indicated that body weight was included in their school’s anti-bullying policy (Puhl, Neumark-Sztainer, et al., 2016). At the district and state level, weight enumeration is even more rare. In fact, a report on enumerated categories in anti-bullying policies across the United States revealed that only 20% of school districts enumerated physical appearance and *no* school districts explicitly enumerated body weight (Kull et al., 2015). Further, although all states have anti-bullying legislation in place, only three include policy language that provides protections based on weight (*State Anti-Bullying Laws & Policies*).

Although empirical evidence is limited, a growing body of work suggests that specific enumeration of “weight” in anti-bullying policies and laws can be useful in reducing the weight stigma experienced by youth. For example, adolescents living in states with weight-enumerated anti-bullying laws are less frequently bullied for their weight, compared to their peers living in states without weight-enumerated anti-bullying laws (Lessard, Watson, et al., 2021). At the school level, negative weight biases are lower among educators whose school district anti-bullying policy includes enumeration of body weight; notably, sensitivity analyses reveal that, unlike the explicit mention of “weight,” enumeration of “appearance” broadly was unrelated to educators’ weight biases (Lessard & Puhl, 2021). Likewise, enumeration of “physical appearance” in state anti-bullying legislation is unrelated to weight-related bullying disparities (Hatzenbuehler et al., 2017).

As such, policymakers at the local and federal levels should consider adding the specific enumeration of “weight” to anti-bullying policies and legislation alongside other characteristics like race/ethnicity and sexual orientation already present in these policies, particularly given the feasibility of implementation and minimal financial burden. In the event that policies include only appearance-related terminology, which is more common than weight enumeration at both

the school (Lessard & Puhl, 2021) and state (Hatzenbuehler et al., 2017) level, modifications should include specific reference to body weight in order to provide youth with adequate protection from weight-related mistreatment.

Increase Funding for Schools to Address Weight Stigma

Whereas enumeration in anti-bullying policies and legislation requires little financial resources, funds to build the professional competency of the school staff (e.g., via teacher training) on weight stigma and develop weight inclusive curricula may be necessary to equip members of the school community with resources and skills to support youth with diverse body sizes. Teachers, in particular, are fundamental to weight stigma reduction efforts, and many youth desire teachers to help them cope with experiences of weight-based victimization (Puhl, Peterson, et al., 2013); however, students (Lessard, Lawrence, et al., 2021) and parents (Puhl & Luedicke, 2014) express little confidence in teachers’ preparedness to handle incidents of weight-based mistreatment at school. Yet, without the relevant knowledge and training, which requires both time and money, teachers cannot necessarily support students with high weight and intervene in the presence of weight-based victimization. Indeed, two-thirds of parents believe that funding in schools is insufficient to deal with weight-related bullying (Puhl & Luedicke, 2014), and school administrators cite limited financial resources and training as key barriers for staff to implement effective, non-stigmatizing practices (Kenney et al., 2017).

Just as school counselors with greater multicultural knowledge are more likely to intervene during instances of bias-based harassment, bullying, and discrimination targeting Latino/a students (Toomey & Storlie, 2016), increased understanding of the prevalence and harm associated with weight stigma will presumably encourage educators to more frequently and consistently intervene when youth are experiencing weight-related stigma. Similar findings have been documented in the context of SGM stigma, whereby teachers who have received training specifically related to LGBT topics are more supportive of LGBT students (Swanson & Gettinger, 2016). Although almost all (99%) secondary school educators feel that it is important for them to intervene when students are facing weight-related mistreatment, nearly two-thirds desire additional training on when and how to intervene when students are experiencing weight stigma (Puhl, Neumark-Sztainer, et al., 2016). Recent evidence from a teacher training intervention suggests that integration of content related to weight (e.g., body self-reflection, examination of experiences of students with larger bodies in school, strategies to enhance inclusivity of nutrition and physical education and engage with students targeted by weight stigma) increases teachers’ ability to identify the harm in peer-to-peer weight-related teasing and recognize

their responsibility to respond to such incidents (Saunders et al., 2021).

To the extent that teachers receive effective education on weight stigma and feel confident in their ability to disrupt weight-based mistreatment, a weight-inclusive peer culture is likely to follow suit. Insofar as teachers serve as role models for inclusive behaviors (Juvonen et al., 2019), when youth see their teacher reprimand a student for bullying another for their weight and provide support to the victim, they are likely to use similar positive intervention strategies in the future. Such modeling behaviors can be further supplemented with the inclusion of classroom curricula related to weight stigma. Not only has research shown teachers to effectively deliver school-based body-related acceptance interventions (Diedrichs et al., 2015), but 9-in-10 educators agree that student curricula should include content aimed at reducing weight-related bullying (Puhl, Neumark-Sztainer, et al., 2016).

Advocate for the Adoption of School Wellness Programs That Emphasize Health—Rather Than Weight

School wellness programs represent a key public health approach for addressing rising rates of overweight and obesity among youth. However, programs emphasizing weight loss are more commonly utilized in school settings than evidence-based programs that promote healthy eating and physical activity, despite their potential to reinforce and strengthen weight stigma (Kenney et al., 2017). For example, although associated with decreased weight satisfaction and increased peer weight talk (Madsen et al., 2021), weight assessment and monitoring practices are widespread in schools. Indeed, half of all U.S. states have legislation requiring schools to monitor student BMI (Ruggieri & Bass, 2015). Advocacy from policymakers against such weight surveillance campaigns is critical to avoid sending messages to youth that reinforce beliefs about the social (un)acceptability of high weight and exacerbate internalized weight stigma (Pearl, 2018). Indeed, findings from a recent systematic review highlighted weight stigma as a common concern of parents related to BMI reporting (Tatum et al., 2021), and few educators support in-school weight assessments or reporting students' weight status to their families (Puhl, Neumark-Sztainer, et al., 2016).

Although less common than weight surveillance (Ruggieri & Bass, 2015), weight reporting to families, which is sometimes referred to as a "BMI report card," is particularly likely to promote weight-focused communication at home (e.g., parental encouragement of their child to control their weight or size) in ways that can be harmful to youths' health and well-being (Gillison et al., 2016). Shifting the focus within such school-based programs from weight to health, for example, through self-assessments of nutritious

eating, stress, body satisfaction, and physical activity, may minimize the stigma experienced by youth with overweight and obesity insofar as high weight is not synonymous with poor health or emphasized as a controllable characteristic (Hunger et al., 2020). As such, policymakers should prioritize identification of weight-focused wellness programs within schools and support the adoption of nonstigmatizing practices of promoting healthy eating and physical activity for all students across diverse body sizes.

Conclusion

To date, much of the existing research on youth with higher body weight has emphasized individual differences relative to their peers with "normal" weight, yet a robust body of literature has highlighted societal stigma as an underlying driver of such differences (Pont et al., 2017; Puhl et al., 2020; Puhl & Latner, 2007). In light of the persistence of weight stigma (Charlesworth & Banaji, 2019) and the growing number of youth with overweight and obesity who may be directly targeted (Ogden et al., 2020), it is now more critical than ever to consider concrete policy actions to minimize youths' exposure to and experiences of weight stigma. This starts first with ensuring that policymakers understand that disparate emotional and psychological distress among this growing population stems not from high weight itself, but from the unjust social mistreatment they more frequently face (e.g., teasing, bullying, negative judgment). In order to support equitable mental health outcomes, policymakers in turn have an important role to play in enacting targeted approaches to address entrenched weight stigma. Our review highlights the strong support from youth and adults (e.g., parents, educators) for policy actions to address weight stigma, particularly in the school setting—a primary context for the stigmatization of youth with high weight. The goal is to ensure youth are afforded equal opportunities for healthy development regardless of their body size or weight status.

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