

Could Underperceiving Your Weight Benefit Your Health?

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In the past several years, there has been a move towards making people more aware of their BMI. Efforts include encouraging physicians to talk to patients about their weight (even incentivizing them through insurance reimbursements) and involving the school system by sending home BMI report cards notifying parents of their child's weight status. These initiatives stem from the assumption that if a person is aware of being "overweight" or "obese" they will take measures to successfully lose weight and keep it off long-term. Unfortunately, this assumption is not based on scientific research. Prior research studies investigating weight misperception (the discrepancy between what a person thinks their weight category is and their actual weight category) found that people who inaccurately perceive their weight as less than it actually is gain *less* weight over time than those who accurately perceive themselves as "overweight." This means that making people more aware of being "overweight" or "obese" could actually lead to more weight gain in the long-term. Might it also lead to worse health outcomes?

In this month's research summary, we'll be looking at a study by Unger et al (2017) that sought to further investigate the effects of weight misperception by examining weight self-perception in adolescence and blood pressure in young adulthood. The researchers used data from the National Longitudinal Study of Adolescent to Adult Health (Add Health) to obtain a nationally representative sample of 2,463 adolescents who met BMI criteria for "overweight" or "obesity." Data was collected at several points beginning in 1994-1995 (wave 1) when participants were in grades 7-12 and concluding in 2008 (wave 4) when participants were between the ages of 24-32 years old. This study used data from wave 2 (1996), the first year height and weight were measured, and wave 4 (2008). They compared participants' answers to the question at wave 1: "How do you think of yourself in terms of weight?" with measured height and weight. Participants who perceived themselves as "normal weight" despite having a BMI in the "overweight" or "obese" range were classified as "underperceivers." Outcome data included systolic (SBP) and diastolic blood pressure (DBP) measured at wave 4.

Among adolescent girls with BMI in the "overweight" or "obese" categories, misperception as "normal weight" was associated with lower blood pressure in adulthood. On average, female underperceivers had a SBP 4.33 mm Hg and a DBP 2.84 mm Hg lower than women who had accurately perceived themselves as "overweight" or "obese" in adolescence. These are clinically significant differences comparable to the pooled effect of antihypertensive medications in clinical trials of mild to moderate hypertension. This relationship was independent of changes in BMI; thus it was not explained by the lower weight gain in underperceivers. This association was only significant for girls and there was no significant association between weight underperception and blood pressure in boys.

The authors conclude that weight underperception may be associated with better long-term health outcomes in women. Stress and social stigma, and the associated psychological effects, may partially explain this relationship. Women who underperceive their weight may be less likely to have experienced weight stigma and discrimination since pervasive shaming messages about one's weight would make one more likely to perceive oneself as "overweight" or "obese." Previous research has concluded that psychosocial stress (closely associated with weight stigma and discrimination) increases the risk of elevated blood pressure. Access to health care could also partially explain the relationship between weight self-perception and blood pressure since prior studies have shown that women categorized as "overweight" or "obese" often avoid or delay medical care due to widespread fat-bias in health care settings. Women who perceive their weight in these categories may be more likely to avoid or delay medical care than women who underperceive themselves as "normal" weight.

Encouraging youth to perceive themselves as "overweight" or "obese" --as is the intention of interventions such as "BMI report cards" or encouraging physicians to focus on weight with patients—can have unintended health consequences. Results of this study support the arguments that labeling people as "overweight" or "obese" can be harmful as it increases social stigma, leads to poor self-image, negative psychological outcomes, and mistrust of the healthcare system.

Reference: Protective Misperception? Prospective Study of Weight Self-Perception and Blood Pressure in Adolescents with Overweight and Obesity
Unger E, Kawachi I, Milliren C, et al (2017) *Journal of Adolescent Health*, 60: 680-687