

Is Weight Stigma Making Us Sick?

Obesity has been linked with many (if not most) medical conditions, from cancer to erectile dysfunction to hypertension. One of the most common 'obesity-related comorbidities' is metabolic syndrome, which is a cluster of risk factors for cardiometabolic disease and type 2 diabetes. Most studies that link BMI and medical conditions (ie. 'obesity-related comorbidities') are correlational and don't factor in other variables that could influence these relationships. A recent study by Pearl et al (2017) examined the role of weight stigma in the relationship between BMI and medical conditions.

Weight stigma is defined as public derogation, devaluation, and discrimination due to weight and is commonly directed towards people who meet BMI criteria for obesity. Weight stigma is associated with psychological consequences including increased risk for depression, anxiety, body dissatisfaction, and low self-esteem, as well as medical consequences including increased mortality. Many people internalize weight stigma and apply the negative views towards themselves. This is called weight bias internalization (WBI) and it has similar psychological consequences as weight stigma perpetrated by other people. In fact, research suggests that WBI may be an even more robust predictor of psychological distress than weight stigma alone. Despite the association of WBI and psychological issues, the relationship between WBI and physical health/medical issues has not been examined in prior studies.

Pearl et al (2017) hypothesized that, in people who meet BMI criteria for obesity, higher levels of WBI would be associated with increased risk of metabolic syndrome. They explored WBI and the individual cardiometabolic risk factors that make up metabolic syndrome to determine which risk factors are most strongly linked to WBI. Participants were 178 adults who met BMI criteria for obesity who were enrolled in a weight loss trial. Data was collected at baseline (prior to the weight loss intervention). WBI was assessed using the Weight Bias Internalization Scale (WBIS), which is a validated measure of WBI. The researchers controlled for BMI and a number of other variables (including depression) in the data analysis and tested the relationship between WBI and metabolic syndrome above and beyond the effects of demographics, BMI, and depression. Results indicated that participants with higher WBIS scores had greater odds of having high triglycerides and/or taking medication for dyslipidemia. When participants were divided into groups of high vs low WBIS scores, results indicated that participants high in WBI had 3 times greater odds of meeting criteria for metabolic syndrome and 6 times greater odds of having high triglycerides and/or taking medication for dyslipidemia than participants who had low WBI.

This was a cross-sectional study so conclusions can't be made about causation, but the authors do propose a few different explanations for how WBI could lead to metabolic syndrome. WBI leads to chronic stress, which leads to oxidative stress and cortisol secretion, both implicated in metabolic syndrome. Chronic stress may trigger emotional eating or binge eating, also linked to development of metabolic syndrome. People who experience WBI may also lead more sedentary lifestyles due to internalized negative stereotypes such as laziness

and diminished self-efficacy to exercise. The authors suggest that future research utilize longitudinal methodology to better understand causality in the relationship between WBI and metabolic syndrome.

The authors conclude that their results support the growing body of research indicating a relationship between weight stigma and adverse physical health outcomes. These findings provide evidence against the argument (often used in obesity prevention/intervention campaigns) that stigma motivates behavioral change and will improve health. Quite the opposite, stigma is associated with an increased risk of the very comorbidities that obesity prevention/intervention is targeting. It is important to inform the public about the negative health outcomes of weight stigma, including WBI, and work towards reducing weight stigma for people of all sizes.

Reference: Pearl RL, Wadden TA, Hopkins CM, et al (2017). Association between weight bias internalization and metabolic syndrome among treatment-seeking individuals with obesity. *Obesity*, 25 (2): 317-322.