

The Impact of Weight Stigma on Health

A Summary of Research Evidence

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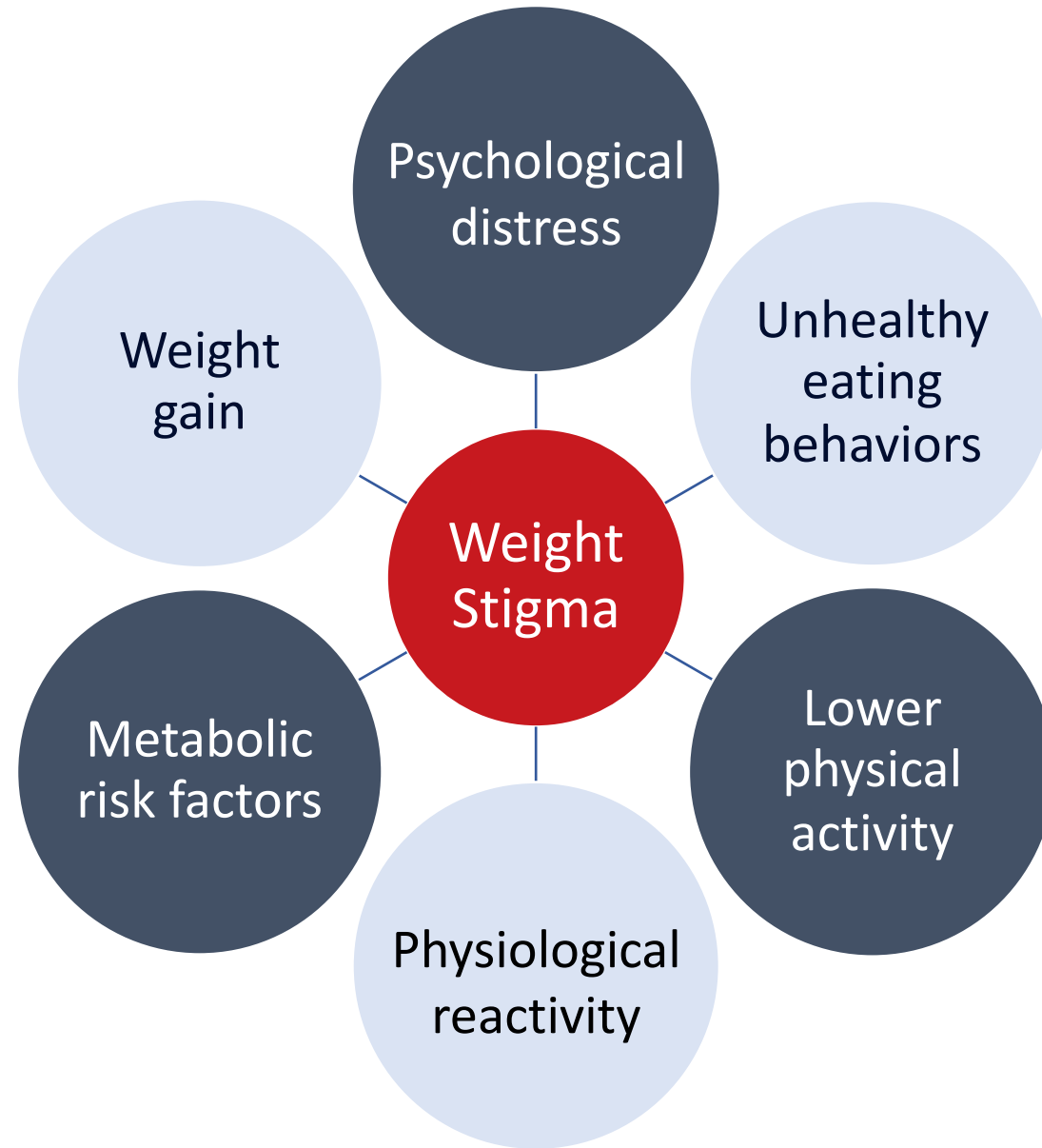


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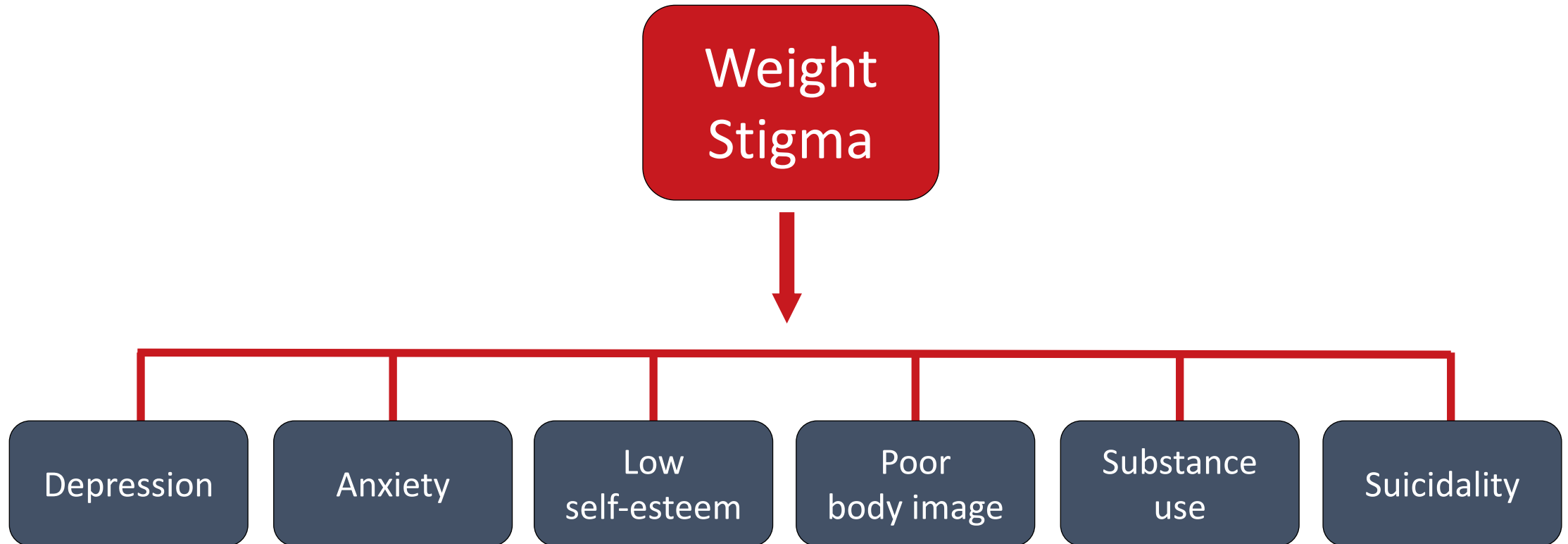


How does weight stigma affect people's health?



Emmer et al., *Obes Rev* 2020; Udo & Grilo, *J Psychosom Res* 2017; Wu & Berry, *J Adv Nurs* 2018; Zhu et al., *Stigma and Health* 2022.

Psychological distress



Weight gain and obesity

Longitudinal Evidence

Project EAT-IV (*Eating & Activity in Teens and Young Adults*)

N=1,830 adolescents followed for 15 years

Adolescence

Weight-based teasing in adolescence
(mean age: 15 years)



Adulthood

Odds of obesity 2x higher in both women and men
(mean age: 31 years)

*Adjusted for baseline body weight, race, SES, and age

Puhl, Wall, Chen, Austin, Eisenberg, Neumark-Sztainer. *Prev Med* 2017

English Longitudinal Study of Ageing

N=2,944 adults aged >50 followed for 6 years

Perceived weight discrimination



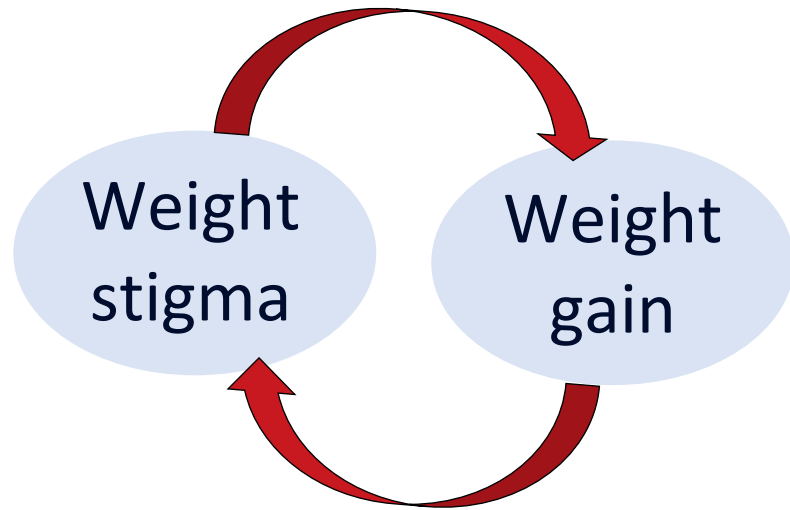
Significant increases in:

- body weight
- waist circumference
- odds of developing obesity

*Adjusted for baseline BMI, age, sex, and wealth

Jackson, Beeken, Wardle. *Obesity* 2014

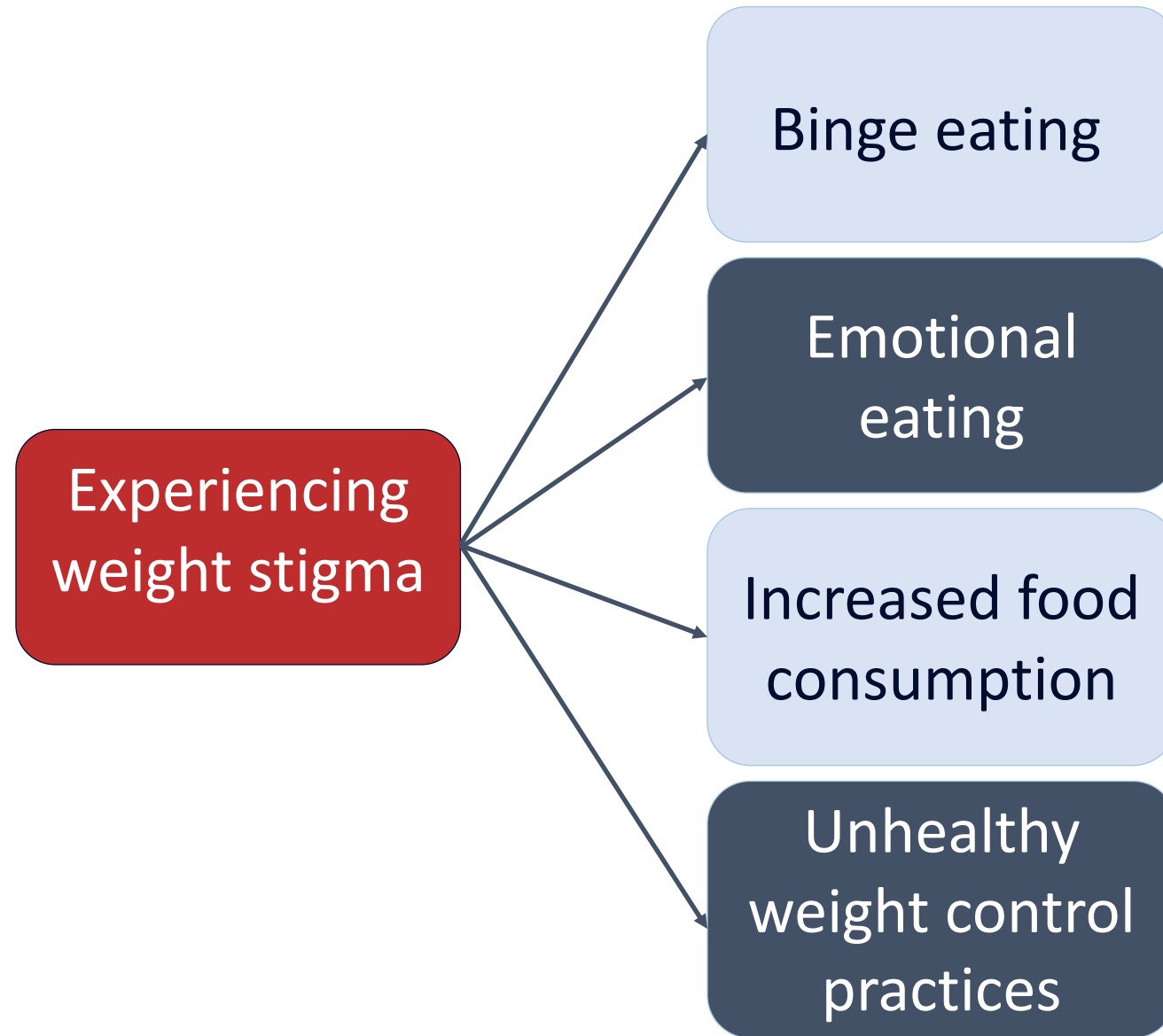
Weight gain and obesity



Experiencing weight stigma predicts increased weight gain and obesity over time, regardless of baseline BMI, age, race/ethnicity, and socioeconomic factors.

Weight stigma is a psychosocial consequence of obesity, but also a psychosocial contributor to obesity.

Weight stigma leads to unhealthy eating behaviors



Araiza & Wellman, *Appetite* 2017; Lee et al., *Int J Obes* 2021; Nolan & Esherman, *Appetite* 2016; Puhl et al., *Prev Med* 2017; Schvey et al., *Obesity* 2011; Vartanian & Porter, *Appetite* 2016; Wellman et al., *Appetite* 2019.

Eating as a coping response to weight stigma

N=2,449 women in a self-help weight loss support program

“How do you cope with weight stigma experiences?”

79% reported eating:

“turning to food” as coping mechanism

Puhl & Brownell, *Obesity* 2006

N=2,378 adults in a national community sample

Increased weight stigma



Coped by engaging in:
Disordered eating behaviors
Increased eating and food intake

Himmelstein et al., *Am J Prev Med* 2017.

These coping responses can become long-term patterns in reaction to weight stigma

Lower physical activity

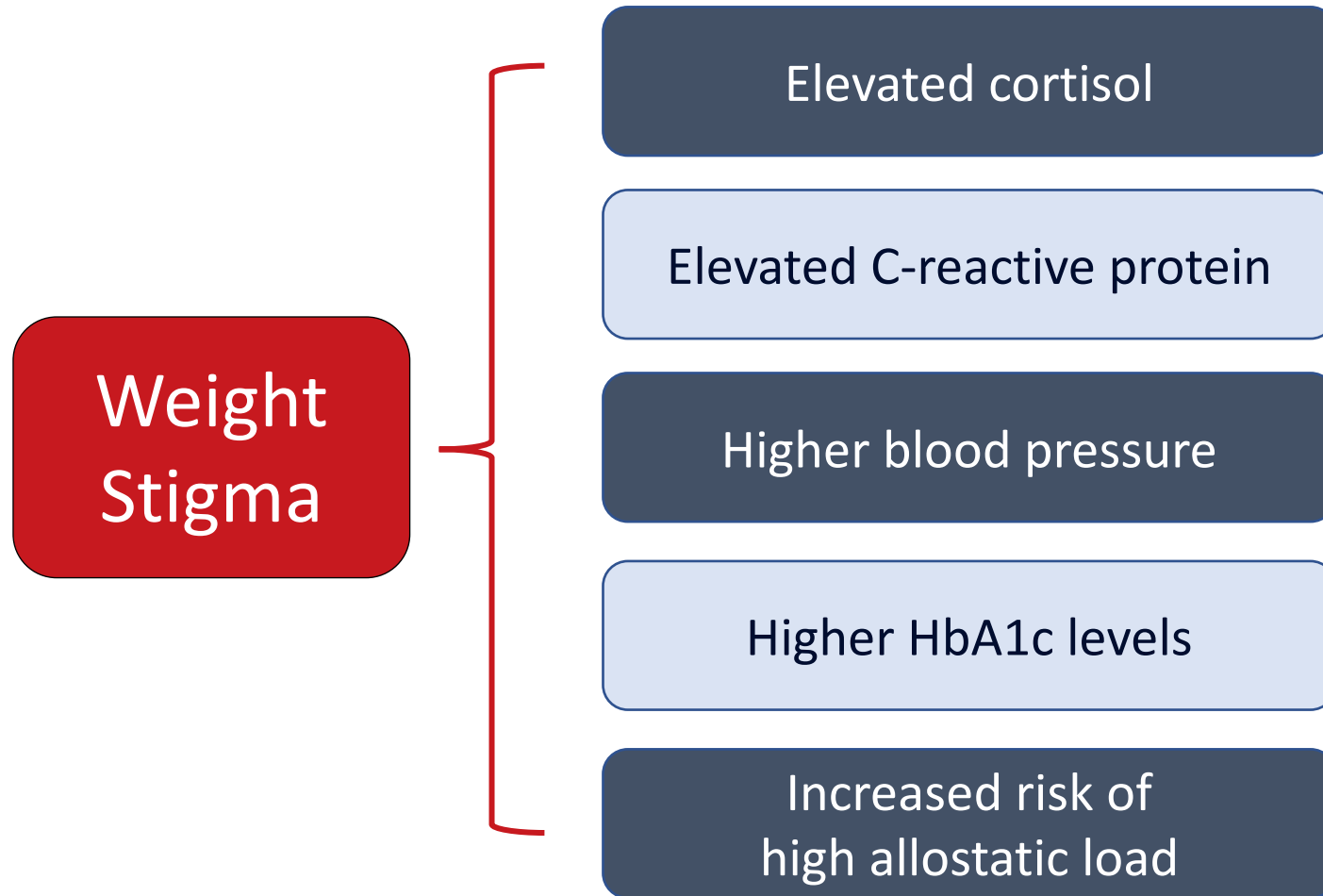
Negative feelings about engaging in physical activity

Lower intentions to be physically active

Avoidance of exercise



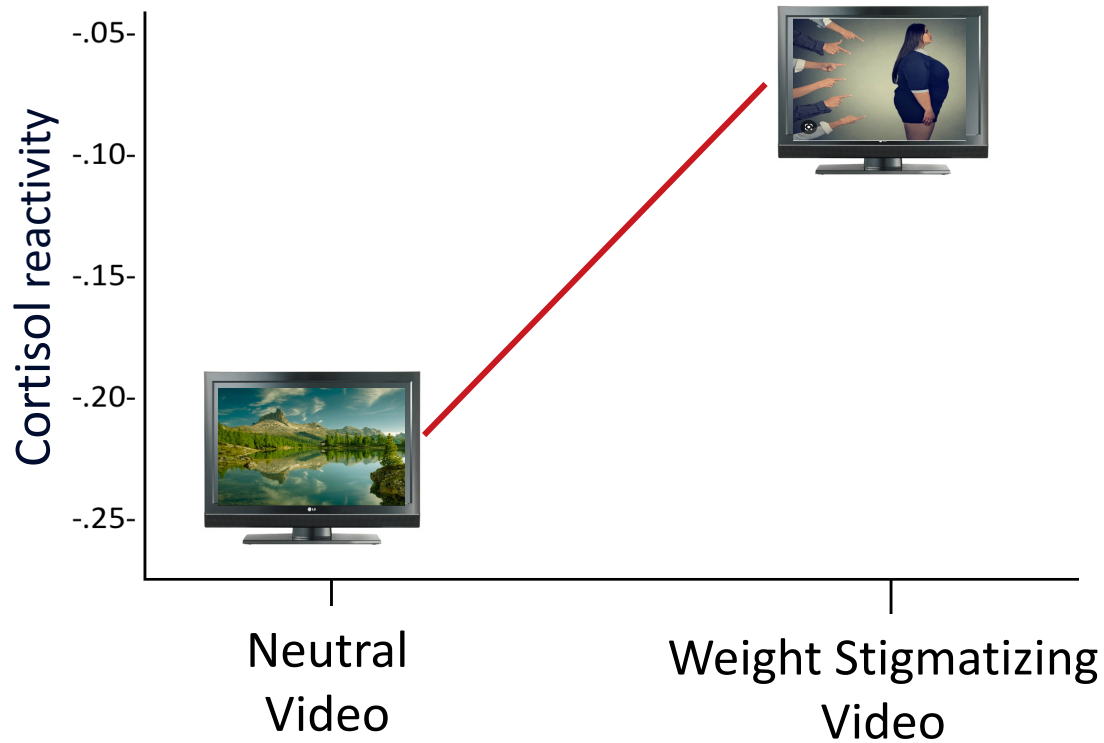
Physiological reactivity



Increased risk of mortality independent of BMI

Media exposure to weight stigma increases physiological reactivity

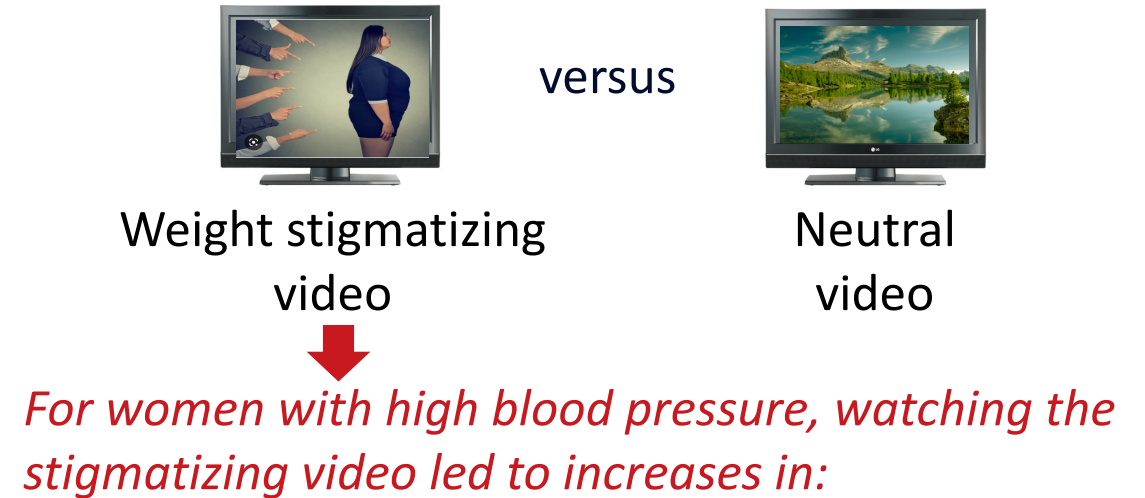
Cortisol Reactivity



N = 128 women of different body sizes

Schvey et al., *Psychsom Med* 2014

Blood Pressure



- Systolic blood pressure
- Diastolic blood pressure
- Ambulatory blood pressure
- Heart rate

N = 50 women with obesity, with either normal or high blood pressure

Panza et al., *J Psychom Res* 2023

Poor cardio- metabolic health

Weight stigma may increase risk of:

Metabolic
syndrome

Cardiovascular
disease

Myocardial
infarction

Original Article
CLINICAL TRIALS AND INVESTIGATIONS

Obesity

Association Between Weight Bias Internalization and Metabolic Syndrome Among Treatment-Seeking Individuals with Obesity

Rebecca L. Pearl¹, Thomas A. Wadden¹, Christina M. Hopkins^{1,2}, Jena A. Shaw¹, Matthew R. Hayes^{1,3}, Zayna M. Bakizadd¹, Nasreen Alfaris⁴, Ariana M. Chao^{1,5}, Emilie Pinkasavage¹, Robert I. Berkowitz^{1,6}, and Najj Alamuddin^{1,7}

Journal of Psychosomatic Research

journal homepage: www.elsevier.com/locate/jpsychores

Cardiovascular disease and perceived weight, racial, and gender discrimination in U.S. adults

Tomoko Udo^{a,*}, Carlos M. Grilo^{b,c}

Internalization of weight bias

Societal and/or interpersonal experiences of weight stigma

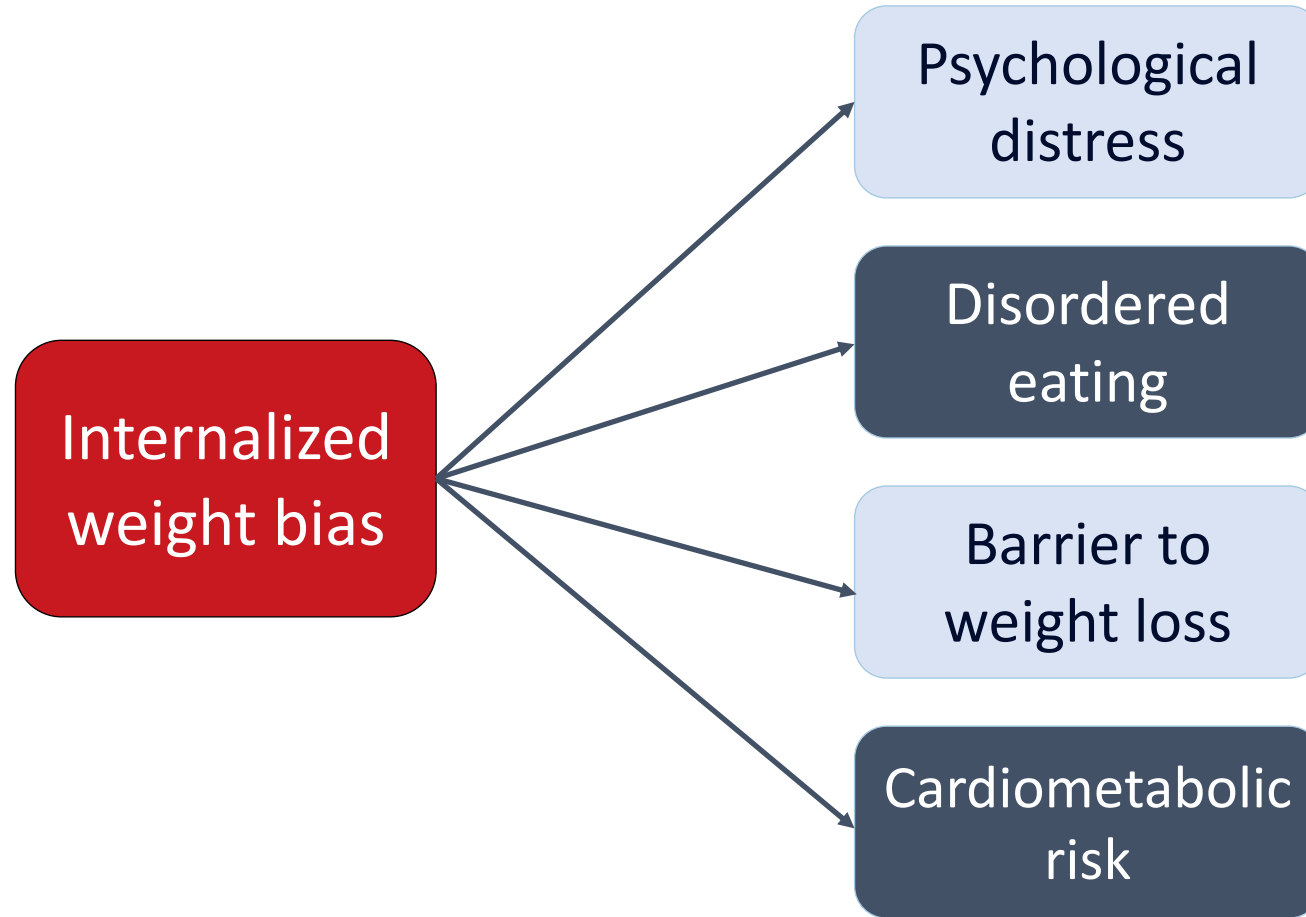


Negative external judgments become an internalized process of negative self-judgment



- Awareness of stereotypes
- Apply stereotypes to oneself
- Self-directed stigma and self-blame

Internalized weight bias and health



Findings persist after accounting for BMI and experienced stigma

Interferes with weight management

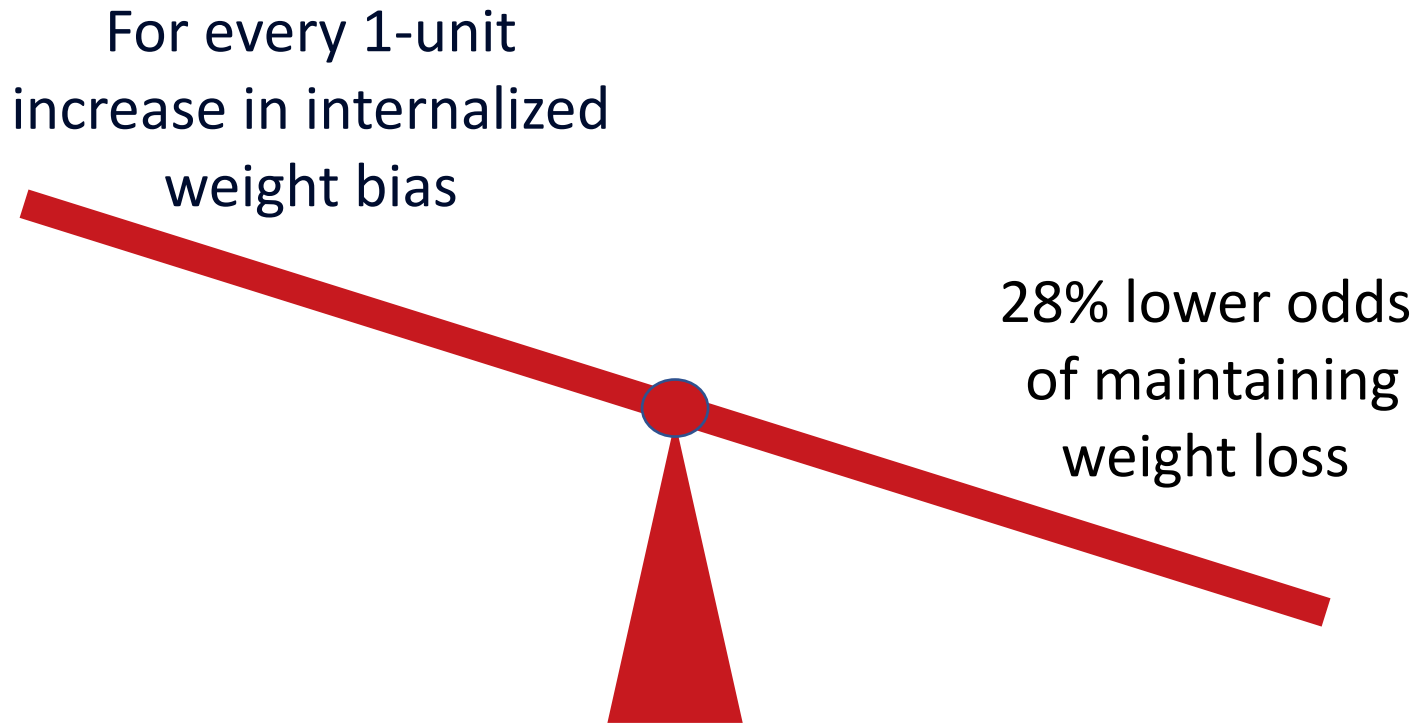
- National, community sample of 549 adults who reported intentional weight loss of $\geq 10\%$ in the past year
- 314 maintained weight loss, 235 re-gained weight:

What factors are related to weight loss maintenance (WLM)?



Internalized weight bias interferes with weight management

Internalized weight bias impairs efforts to sustain weight loss, independent of how much stigma people experience:



Puhl, Quinn, Weisz, Suh. *Ann Beh Med.* 2017



Creates barriers for weight management

- U.S. adults engaged in weight management (N=18,769)
- Internalized weight bias was associated with:

Lower odds of achieving
5%-15% weight loss

Higher odds of
5%-10% weight gain

Poorer weight management behaviors,
less food monitoring,
lower eating self-efficacy

*Controlled for age, sex, race/ethnicity, education, marital status, BMI, overweight onset, program duration

Internalized weight bias and coping strategies

Internalizing weight bias is associated with:

more use of maladaptive coping strategies in response to stigma

Maladaptive Coping:

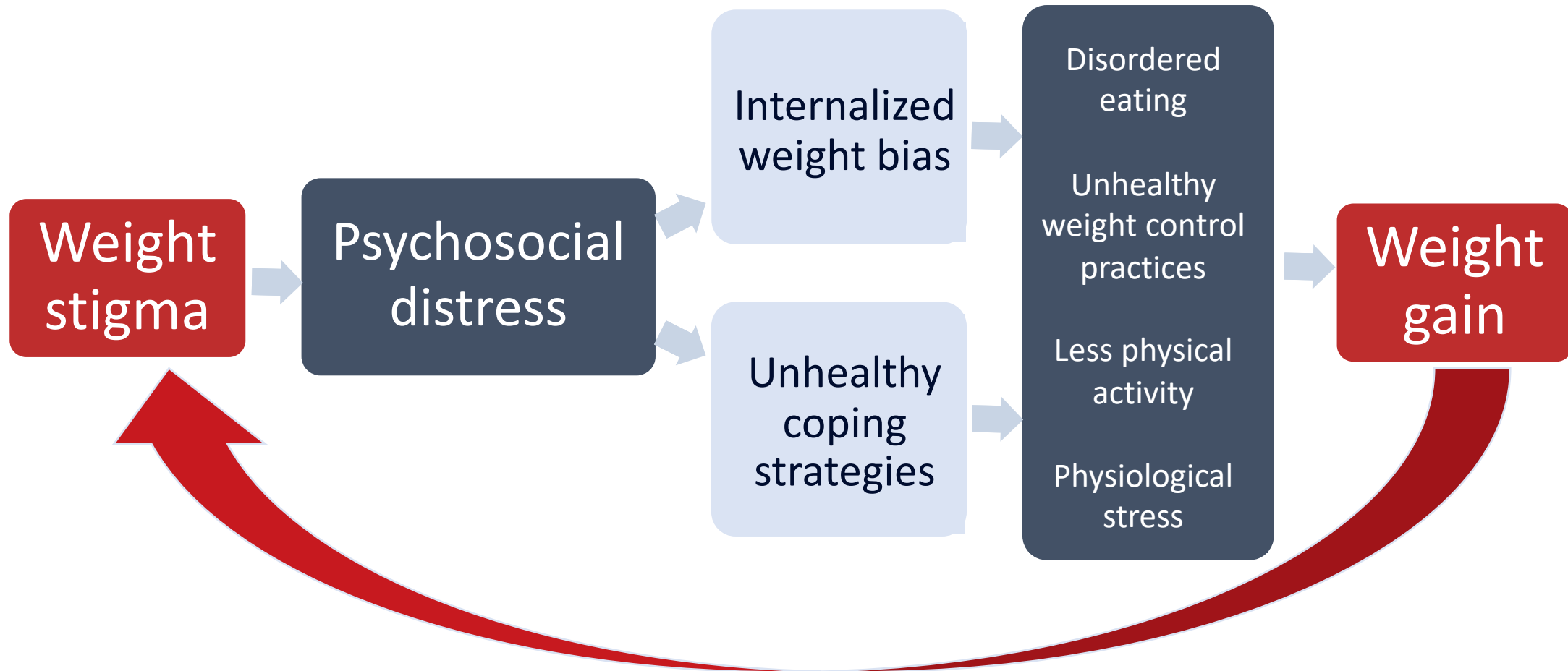
- Avoiding exercise
- Disordered eating
- Self-blame
- Disengagement

less use of adaptive coping strategies in response to stigma

Adaptive Coping:

- Self-acceptance
- Positive self-talk
- Emotional support

Pathway from weight stigma to weight gain



Weight stigma is a public health issue

nature
medicine

CONSENSUS STATEMENT

<https://doi.org/10.1038/s41591-020-0803-x>



OPEN

Joint international consensus statement for ending stigma of obesity

People with obesity commonly face a pervasive, resilient form of social stigma. They are often subject to discrimination in the workplace as well as in educational and healthcare settings. Research indicates that weight stigma can cause physical and psychological harm, and that affected individuals are less likely to receive adequate care. For these reasons, weight stigma damages health, undermines human and social rights, and is unacceptable in modern societies. To inform healthcare professionals, policymakers, and the public about this issue, a multidisciplinary group of international experts, including representatives of scientific organizations, reviewed available evidence on the causes and harms of weight stigma and, using a modified Delphi process, developed a joint consensus statement with recommendations to eliminate weight bias. Academic institutions, professional organizations, media, public-health authorities, and governments should encourage education about weight stigma to facilitate a new public narrative about obesity, coherent with modern scientific knowledge.

Nature Medicine | VOL 26 | April 2020 | 485–497 www.nature.com/naturemedicine

Endorsed by over 100 professional scientific and medical organizations:

“Weight stigma represents a major obstacle in efforts to effectively prevent and treat obesity and type 2 diabetes. Tackling stigma is not only a matter of human rights and social justice, but also a way to advance prevention and treatment of these diseases.”

