

The Weight of Stigma: The Effects of Internalized Weight Bias on Eating Behavior in Young Adults Across the Weight Spectrum



Julia Nicholas¹, Lori Keeling¹, PhD, & Nancy Zucker^{1,2}, PhD

1. Department of Psychology and Neuroscience, Duke University

2. Department of Psychiatry and Behavioral Sciences, Duke University School of Medicine

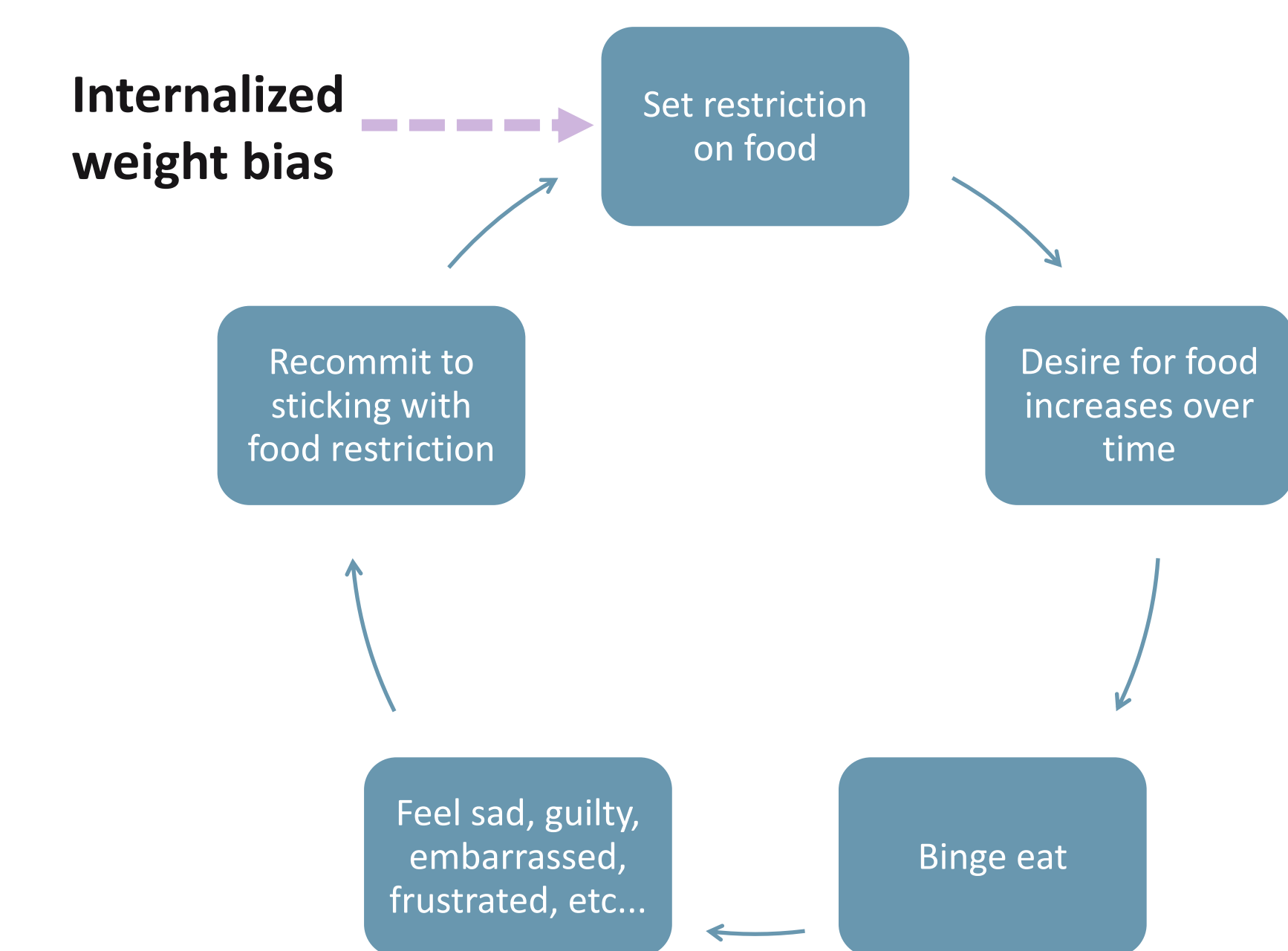


Introduction

BACKGROUND

- Internalized weight bias occurs when an individual views their own self-worth through the lens of common negative stereotypes and attitudes about people who are overweight.¹
- Internalized weight bias contributes to binge eating in young adults across the weight spectrum.²

The current study investigated the relationship between internalized weight bias, restrictive eating in social settings, and binge eating, using the all-or-nothing model of binge eating³ depicted below as a framework for understanding the potential role of internalized weight bias in eating behavior.



HYPOTHESES

Hypothesis 1: Restrictive eating in social settings will mediate the relationship between internalized weight bias and binge eating.

Hypothesis 2: Gender will moderate the relationship between internalized weight bias and eating behavior, with women evidencing greater restrictive eating in social settings.

Hypothesis 3: More salient and significant memories will be associated with more severe internalized weight stigma.

Method

PARTICIPANTS

Duke University undergraduates ($N = 100$) were recruited from the Psychology & Neuroscience subject pool to take an online survey. The data from 3 participants were incomplete and were excluded from analysis.

	MEN	WOMEN	TOTAL
n	35	62	97
M _{age} (SD)	19.23 (1.31)	18.68 (0.83)	18.94 (1.16)
M _{BMI} (SD)	23.43 (3.14)	23.80 (4.45)	23.67 (4.01)
Ethnicity			
White	24	36	60
Black	0	10	10
Asian	12	17	29
Latinx	4	8	12
Native American	0	1	1
Pacific Islander	0	0	0
Other	0	2	2

MEASURES

Demographics. Gender, age, ethnicity, BMI.

Binge eating. Item 6 of the Eating Disorder Diagnostic Scale (EDDS)⁴: “How many times per month over the past 3 months have you eaten an unusually large amount of food and experienced a loss of control?”

Internalized weight bias. The Modified Weight Bias Internalization Scale (WBIS-M)².

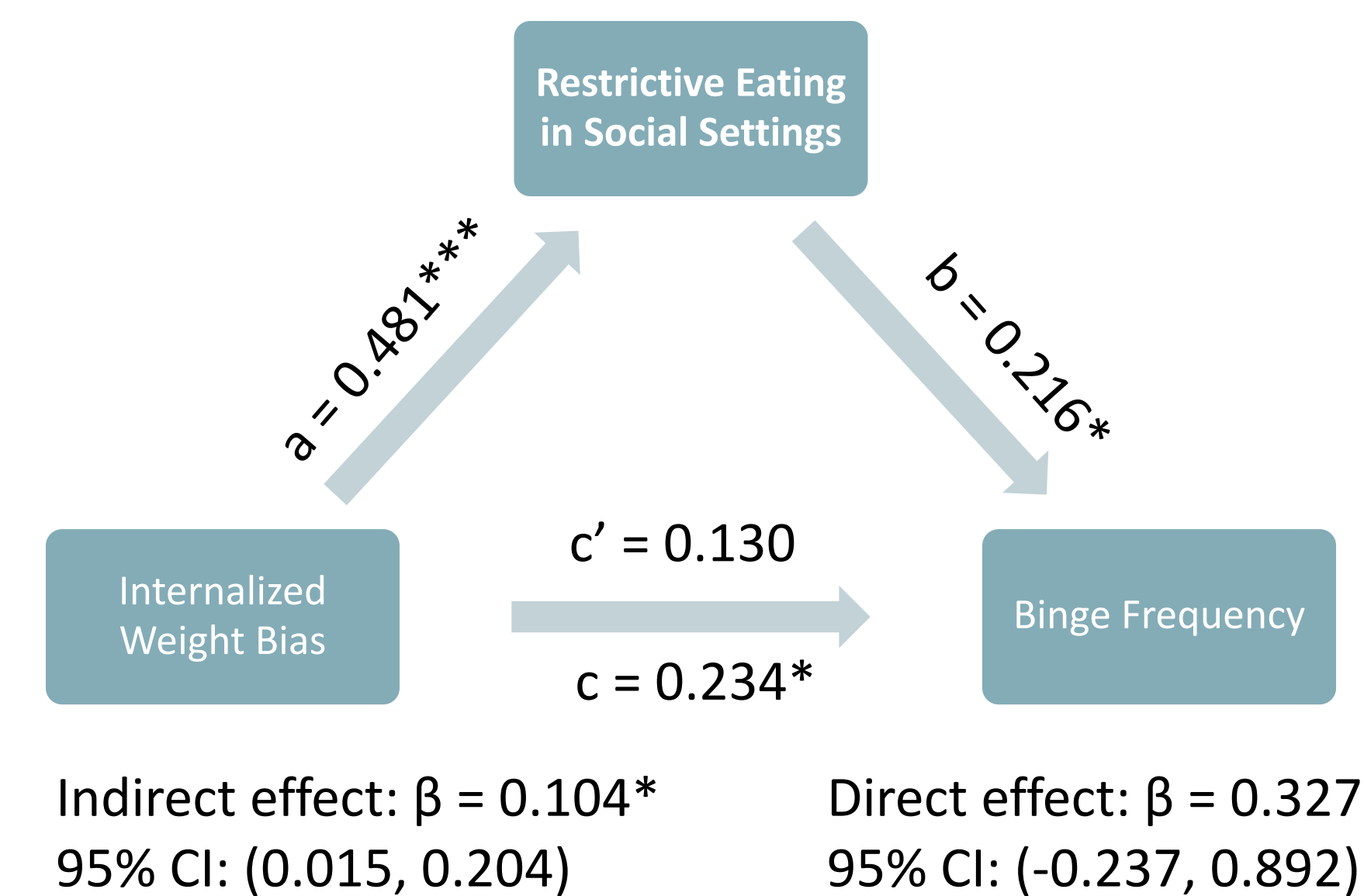
Restrictive eating in social settings. Researcher-designed questions related to eating less in front of other people

Depression. The Beck Depression Inventory-II (BDI-II)⁵.

Weight stigma memories. Version of the Autobiographical Memory Questionnaire^{6,7} (AMQ) specific to body shame, Centrality of Event Scale (CES)⁸.

Results

HYPOTHESIS 1



The direct path from internalized weight bias to binge frequency becomes nonsignificant with the addition of restrictive eating in social settings as a mediator. * $p < .05$, *** $p < .001$

HYPOTHESIS 2

Linear regression analysis revealed that there was no significant gender difference in the effect of internalized weight bias on restrictive eating in social settings ($\beta_{men} = .312$, $\beta_{women} = .256$, $t = -.375$, $p = .708$).

HYPOTHESIS 3

Eighty-six participants wrote about past experiences of weight stigma and body shame. Memory salience accounted for significant variance in WBIS-M score ($R^2 = .271$, $F(1, 84) = 31.281$, $p < .001$), as did memory significance ($R^2 = .154$, $F(1, 84) = 15.293$, $p < .001$).

WEIGHT STIGMA MEMORIES

Qualitative analysis of body shame memories revealed several recurring themes:

- Removing clothing in front of others
- Disgust at one's appearance in photographs
- Comparing their bodies with peers' or with their younger selves
- Embarrassment about poor athletic performance
- Shame after eating large amounts of food

Discussion

- Restrictive eating in social settings mediates the relationship between internalized weight bias and binge eating.
- Stigmatizing experiences may contribute to weight bias internalization in individuals across the weight spectrum.

Conclusion

- The current study suggests that increased risk for binge eating among individuals with internalized weight bias may be a product of shame around eating in front of others.
- Forms of restrictive eating less severe than total fasting may have significant impacts on binge eating risk, although further study is needed before causation can be established.

References

- Durso, L. E., & Latner, J. D. (2008). Understanding self-directed stigma: Development of the Weight Bias Internalization Scale. *Obesity, 16*(S2), S80-6.
- Pearl, R. L., & Puhl, R. M. (2014). Measuring internalized weight attitudes across body weight categories: Validation of the Modified Weight Bias Internalization Scale. *Body Image, 11*(1), 89-92.
- Craighead, L. W. (2006). *The appetite awareness workbook: How to listen to your body & overcome bingeing, overeating & obsession with food*. Oakland, CA: New Harbinger Publications.
- Stice, E., Telch, C. F., & Rizvi, S. L. (2000). Development and validation of the Eating Disorder Diagnostic Scale: A brief self-report measure of anorexia, bulimia, and binge-eating disorder. *Psychological Assessment, 12*(2), 123-131.
- Beck, A. T., Steer, R. A., & Brown, G. K. (1996). *BDI-II, Beck depression inventory: Manual* (2nd ed). Boston: Psychological Corp.
- Rubin, D. C., Schrauf, R. W., & Greenberg, D. L. (2003). Belief and recollection of autobiographical memories. *Memory & Cognition, 31*(6), 887-901.
- Duarte, C., & Pinto-Gouveia, J. (2017). Self-defining memories of body image shame and binge eating in men and women: Body image shame and self-criticism in adulthood as mediating mechanisms. *Sex Roles, 77*(5-6), 338-351.
- Berntsen, D., & Rubin, D. C. (2006). The Centrality of Event Scale: A Measure of Integrating a Trauma into One's Identity and its Relation to Post-Traumatic Stress Disorder Symptoms. *Behaviour Research and Therapy, 44*(2), 219-231.