

Internalized Weight-related Stigma and Well-Being Among College Students with Overweight and Obesity: The Role of Fusion as a Moderator

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Cognitive Fusion Does Not Moderate the Relationship Between Internalized Weight-related Stigma and Well-being Among College Students with Overweight and Obesity

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INTRODUCTION

- 16-20% of university students are overweight or obese (Peltzer et. al, 2014; Telleria-Aramburu & Arroyo-Izaga, 2021).
- 66% experience weight-related stigma (Puhl et al., 2021).
- Weight-related self-stigma is positively correlated with worse health outcomes, loneliness, and depression/anxiety (Phelan et al., 2015).
- There must be moderating variables involved in this relationship. Two such variables may be cognitive fusion and defusion.

METHOD

Participants

- 385 participants
- Mean age = 24.72 (SD = 7.24)
- BMI mean = 31.40 (SD = 5.53), 48.31% overweight and 51.69% obese
- Gender: 72.7% female, 22.3% male, 1.6% non-binary, 3.4% other
- Race: 42.1% White, 40.8% Latino/a/x or Hispanic, 7.5% Black, 4.2% Asian, 5.1% other
- Grade: 48.3% of the sample were freshmen, 28.3% sophomores, 16.6% juniors, and 6.8% seniors.

Measures

- **Demographic Questionnaire** - Items assessed were age, gender identity, race, ethnicity, year in school, height, and weight.
- **Modified Weight Bias Internalization Scale** - 11-item scale assessing the level of internalized weight-related stereotypes and self-evaluation based on weight. Higher scores indicate more internalized weight bias.
- **Flourishing Scale** - 12-item scale assessing perceived success in social and psychological realms. Higher scores indicate increased well-being.
- **Multidimensional Psychological Flexibility Inventory** - fusion and defusion subscales assessing the level of identification with one's thoughts. Higher scores indicate greater fusion and defusion, respectively.

Procedures

- Undergraduate students completed a series of online questionnaires for course credit

RESULTS

Table 1

Correlations, Means, and Standard Deviations among Constructs

Variables	1	2	3	4	5
1. Fusion					
2. Defusion	-.54***				
3. Stigma	.30***	-.24***			
4. Well-being	-.51***	.51***	-.33***		
5. BMI	.11**	-.13**	.39***	-.14**	
Mean	16.62	16.55	13.98	43.91	31.40
SD	7.44	6.41	12.38	7.44	5.53

Note. N = 385, * $p < .05$, ** $p < .01$, *** $p < .001$

Table 2

Overall model, conditioning effects, and interaction effect estimating well-being

	b	SE	t	p	95% CI
Overall model					
F(4, 380) = 51.27, $p < .001$, $R^2 = .35$					
Intercept	57.75	2.53	22.87	< .001	[52.78, 62.71]
Internalized weight-stigma	-.18	.04	-4.18	< .001	[-.26, -.09]
Fusion	-.44	.12	-3.75	< .001	[-.68, -.21]
Stigma x Fusion	.002	.002	.91	.36	[-.002, .007]
BMI	-.01	.06	-.10	.92	[-.12, .11]

Table 3

Overall model, conditioning effects, and interaction effect estimating well-being

	b	SE	t	p	95% CI
Overall model					
F(4, 380) = 58.26, $p < .001$, $R^2 = .38$					
Intercept	45.46	2.72	16.69	< .001	[40.10, 50.81]
Internalized weight-stigma	-.21	.04	-4.79	< .001	[-.30, -.13]
Defusion	.30	.11	2.62	.01	[.07, .52]
Stigma x Defusion	.003	.003	1.36	.18	[-.002, .008]
BMI	.02	.06	.43	.67	[-.09, .14]

Correlations

- Stigma was negatively correlated with well-being
- Fusion was negatively correlated with well-being, defusion was positively correlated
- BMI was negatively correlated with well-being
- See Table 1

Moderation Analysis: Fusion

- The conditional effect of internalized weight-stigma predicts flourishing.
- The conditional effect of fusion predicted flourishing.
- The interaction between fusion and internalized weight-stigma did not predict well-being (Table 2).

Moderation Analysis: Defusion

- The conditional effect of internalized weight-stigma predicts flourishing.
- The conditional effect of defusion predicted flourishing.
- The interaction between defusion and internalized weight-stigma did not predict well-being (Table 3).

DISCUSSION

- The conditional effects of fusion and defusion predicted flourishing but the interactions did not.
- Future research should examine other possible moderators that impact the relationship between internalized weight-stigma and flourishing.
- Limitations: this study only took place at one university amongst college students enrolled in introductory psychology courses.