

Does Visceral Sensitivity Change the Association between Body Dissatisfaction and Mental Health Outcomes?

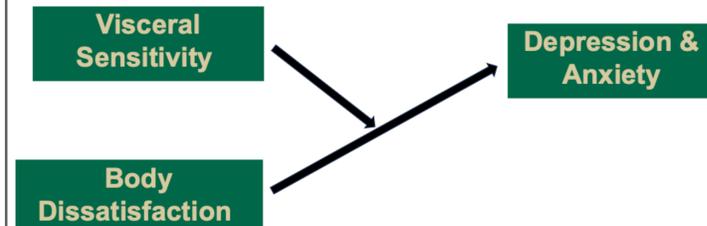
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Introduction

- Higher gastrointestinal (GI) visceral sensitivity (VS; i.e., hypersensitivity to GI cues) and body dissatisfaction [BD] are both associated with increased depression and anxiety.¹⁻⁴
- Additionally, higher BD is associated with higher VS in clinical eating disorder samples⁵
- VS and BD may interact to predict increased risk for other mental health outcomes, such as depression and anxiety.⁶
- AIM:** This study aimed to assess whether the relationship between BD and mental health outcomes depends on the level of VS.
- Hypothesis:** BD will be positively associated with Depression and Anxiety, and this association will be especially strong for individuals high in VS (see Figure 1).

Figure 1: Hypothesis Prediction Model



Methods

Procedure & Participants

- 591 university Students (53.3% women; 44.5% Non-Hispanic White; 23.0% Hispanic; 20.8% sexual minorities; 2.3% gender minorities; $M_{age} = 19.92$ [$SD = 3.24$]).
- Online survey; SONA points awarded upon completion

Measures

- The Patient Health Questionnaire 9 (PHQ-9)⁷
- The Generalized Anxiety Disorder 7 (GAD-7)⁸
- The Body Dissatisfaction subscale of the Eating Pathology Symptoms Inventory (EPSI)⁹.
- The Visceral Sensitivity Index (VSI)¹⁰

Data Analysis

- Moderation was assessed via Model 1 of the PROCESS macro¹¹ in SPSS v28

Main Findings

Visceral Sensitivity moderated the association between body dissatisfaction and anxiety, but not depression. Specifically, the association between body dissatisfaction and depression was stronger at higher levels of visceral sensitivity.

Results

- There was a significant interaction effect between visceral sensitivity and body dissatisfaction predicting anxiety (see Table 1), but not depression ($p = .260$). See Table 1 for final models.
- The association between body dissatisfaction and anxiety was strongest among individuals with high visceral sensitivity (See Figure 2 and Table 2)

Table 1: Summary of Final Regression Models Predicting Mental Health Outcomes

Variable	Depression				Anxiety			
	B (SE)	LLCI	ULCI	β	B (SE)	LLCI	ULCI	β
BD	.41 (.03)	.35	.47	.49***	.16 (.06)	.03	.29	.20*
VS	.07 (.01)	.04	.09	.20***	.03 (.02)	-.01	.06	.09
BD*VS	-	-	-	-	.005 (.001)	.002	.007	.34**
R^2	.35				.34			

(SE) = standard error; LLCI = lower-level confidence interval; ULCI = upper-level confidence interval

* $p < .05$; ** $p < .01$; *** $p < .001$

Figure 2: Body Dissatisfaction and Generalized Anxiety by Visceral Sensitivity

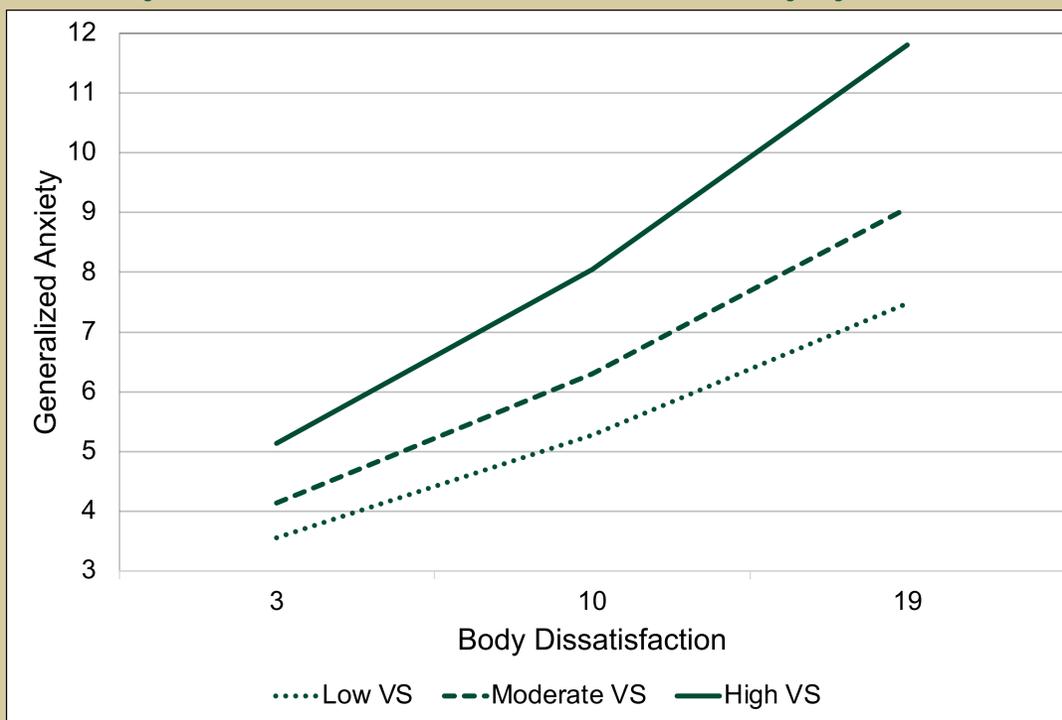


Table 2: Anxiety and BD Moderation Results

	B (SE)	LLCI	ULCI	p
Low VS	.25 (.04)	.16	.33	<.001
Moderate VS	.31 (.03)	.25	.37	<.001
High VS	.42 (.03)	.35	.49	<.001

Discussion

- College students with both high body dissatisfaction and high visceral sensitivity may be at increased risk for anxiety
- College students with anxiety may benefit from cognitive behavioral approaches for body dissatisfaction and interoceptive exposures targeting visceral sensitivity, a notion worthy of future research.

Limitations

- Because this was a cross-sectional study as opposed to a longitudinal study, we are unable to establish a temporal precedence in the relationships between BD, VS and mental health outcomes.

Future Directions

- The current study assessed general anxiety and future work should examine this interaction effect with other specific types of anxiety (e.g., social anxiety, panic attacks, specific phobias). In particular, high levels of social anxiety are associated with high BD,¹² and this association may be especially strong for individuals high in visceral sensitivity.
- These findings should be replicated with longitudinal and/or experimental designs.

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