

Engaging in Physical Activity to Cope is Associated with Compulsive Exercise and Eating Disorder Severity

Krystal Badillo & Kyle P. De Young, PhD
Department of Psychology, University of North Dakota,



Introduction

Research in undergraduates indicates that those who endorse exercising in response to negative affect are more likely to report body image concerns and eating disorder behaviors.

The purpose of this study tested whether the tendency to engage in physically activity to cope with stress is associated with frequency of compulsive exercise and whether this exercise is associated with eating disorder severity .

Method

Participants (N=105 at baseline and N=87 at week 6) comprised a mixed eating disorder sample (anorexia nervosa, bulimia nervosa, binge eating disorder, and purging disorder). The sample was 71.4% Caucasian, 8.6% African American, 7.6% Hispanic , 8.6% Asian/pacific islander, 1% Native American, and 1.9% as mixed or other.

Participants completed the Coping Inventory for Stressful Situations, a measure of the manner in which participants typically respond to stress, the Big Five Personality Inventory, and the Eating Disorder Examination-Questionnaire (EDEQ), a broad measure of eating pathology that provides a global index of severity and includes an estimate of the number of times over the previous 28 days individuals engaged in compulsive exercise, at baseline. Six weeks later, participants completed the EDEQ again.

Results

Generalized linear models indicated that physical activity-oriented coping was uniquely associated with compulsive exercise frequency, accounting for significant variance above and beyond that accounted for other types of coping, eating disorder severity, and personality traits (Table 1).

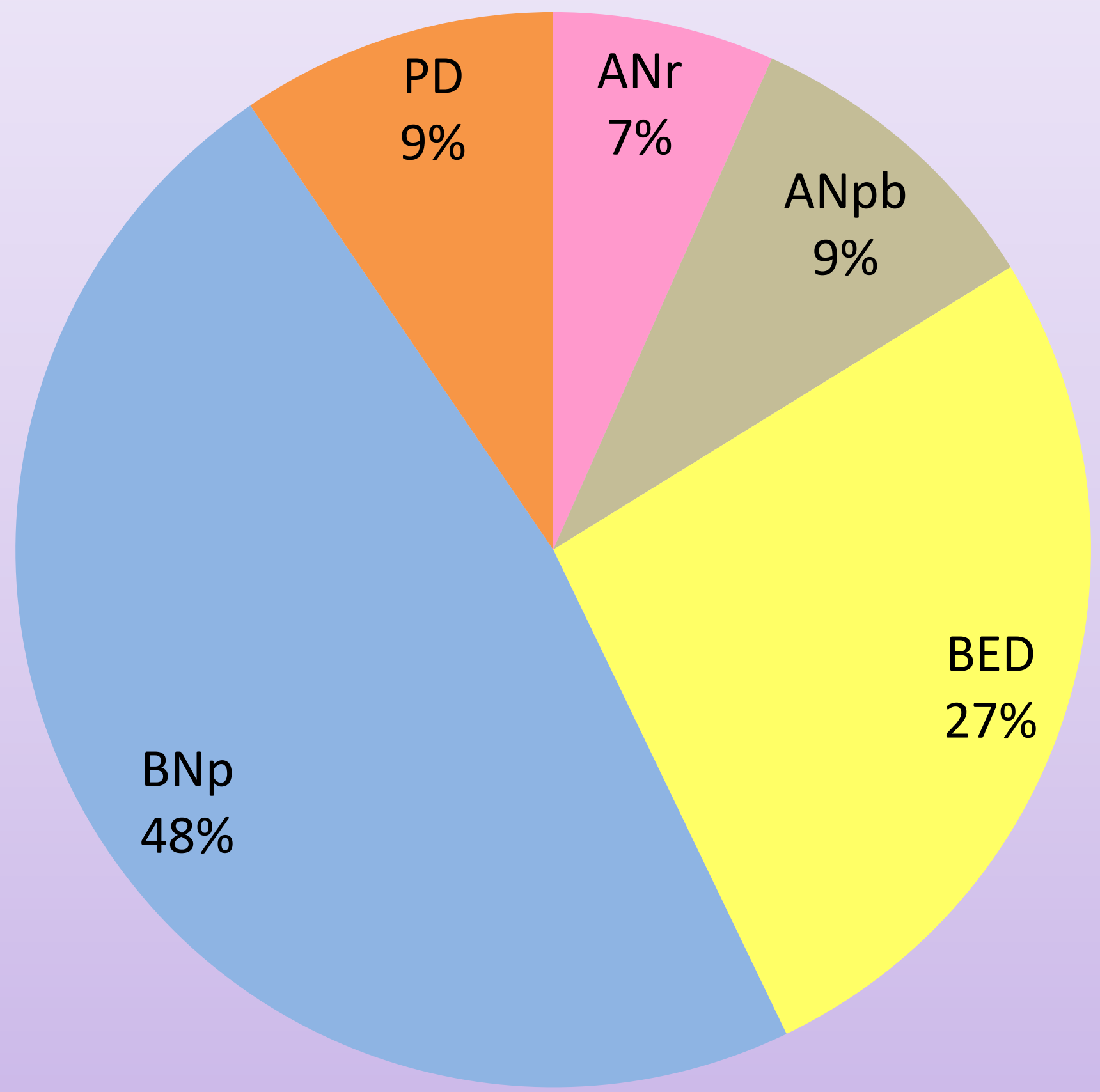
Further, physical activity-oriented coping uniquely predicted the frequency of compulsive exercise 6 weeks later.

EDEQ Global scores, a measure of eating disorder severity, were also a significant predictor of compulsive exercise frequency at 6 weeks.

Generalized Linear Model Results Predicting Compulsive Exercise Frequency

Baseline Measures	Exercise Frequency at Baseline				Exercise Frequency at Week 6			
	B	SE	Wald X ² (1)	p	B	SE	Wald X ² (1)	p
Intercept	-.471	2.208	.045	.831	.658	1.722	.146	.703
Physical Activity Coping	.198	.042	22.224	<.001	.158	.025	55.578	<.001
Task Coping	.011	.016	.458	.498	-.004	.011	.116	.733
Emotion Coping	.016	.017	.897	.344	-.010	.013	.660	.417
Avoidance Coping	.001	.013	.010	.920	-.027	.013	4.047	.044
Extraversion	-.031	.021	2.152	.142	.017	.017	1.021	.312
Agreeableness	-.007	.028	.057	.811	.007	.019	.119	.731
Conscientiousness	-.017	.025	.462	.497	.016	.021	.639	.424
Neuroticism	-.020	.032	.388	.534	-.044	.035	1.596	.207
Openness	-.002	.021	.008	.928	-.012	.017	.501	.479
Global ED Severity	.233	.143	2.678	.102	.486	.123	15.669	<.001

Eating Disorder Diagnoses



Conclusion

The results of this study indicate that the tendency to engage in physical activity to cope with stress predicts compulsive exercise frequency in individuals with eating disorders, and that such exercise is associated with eating disorder psychopathology.

These results mirror those found in undergraduates for whom exercise behavior motivated by negative affect is associated with eating disorder psychopathology. Together, these studies amplify the importance of considering the function of exercise behavior relative to the experience of negative emotionality in eating disorders.