

Boredom Proneness and Emotion Regulation Predict Emotional Eating Behaviors

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Abstract

The number of obese individuals and associated health and medical costs in the United States is concerning. Emotional eating has been implicated as an important risk factor for over eating and binge eating. The present study investigated whether being prone to boredom and having difficulties regulating emotions would predict emotional eating, in particular in response to boredom. The results showed that being prone to boredom and having difficulties regulating emotions uniquely predict eating in response to negative emotion. This was true for all negative emotions, including boredom. These findings help to further identify which individuals are at risk for emotional eating and potentially for unhealthy weight gain.

Introduction

Overeating in response to negative emotions is a problem (Arnow, Kenardy, & Agras, 1995; van Strien & Ouwens, 2007). It has been suggested that negative emotions prompt binge eating (Stice, Presnell, & Spangler, 2002; Stice, 2001) and encourage overeating in vulnerable individuals (van Strien, Engels, Leeuwe, & Snoek, 2005). The resulting associations with obesity and subsequent health risks are concerning (Ogden, Carrol, Kit, & Flegal, 2012; WHO, 2013).

Depression, anxiety, and anger have been commonly investigated as negative emotions that contribute to emotional eating (Nguyen-Rodriguez, Unger, & Spruijt-Metz, 2009; Schneider, Appelhans, Whited, Oleski, & Pagoto, 2010). One experimental study by Abramson and Stinson (1977) demonstrated that induced boredom led to increased food consumption for healthy and obese participants. Despite this early evidence, few studies have investigated boredom or its relation to other negative emotions (Macht, 2008). In addition, because negative emotions often reduce appetite, researchers have looked at individual differences that may moderate the relationship between negative emotions and overeating. (Canetti, Bachar, & Berry, 2002; Larsen, van Strien, Eisinga, & Engels, 2006). This study did that with a focus on boredom. We hypothesized that proneness to boredom coupled with difficulties in regulating negative emotions would lead to more emotional eating. We also expected proneness to boredom to be more predictive of bored eating in particular than emotional eating more generally.

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Methods

Participants

- 552 NDSU undergraduates
- 334 females, 220 males
- Age ranged from 18-46 ($M=19.25$; $SD=2.15$)
- Average Body Mass Index of 23.67 ($SD=3.796$)
- Participated in exchange for class credit.

Procedure

Participants took part in an online survey with measures completed in the following order:

- Demographics
- International Physical Activity Questionnaire (IPAC)
- Dutch Eating Behavior Questionnaire (DEBQ)
- Revised Emotional Eating Scale (EES)
- Boredom Proneness Scale (BPS)
- Difficulties in Emotion Regulation Scale (DERS)

Results

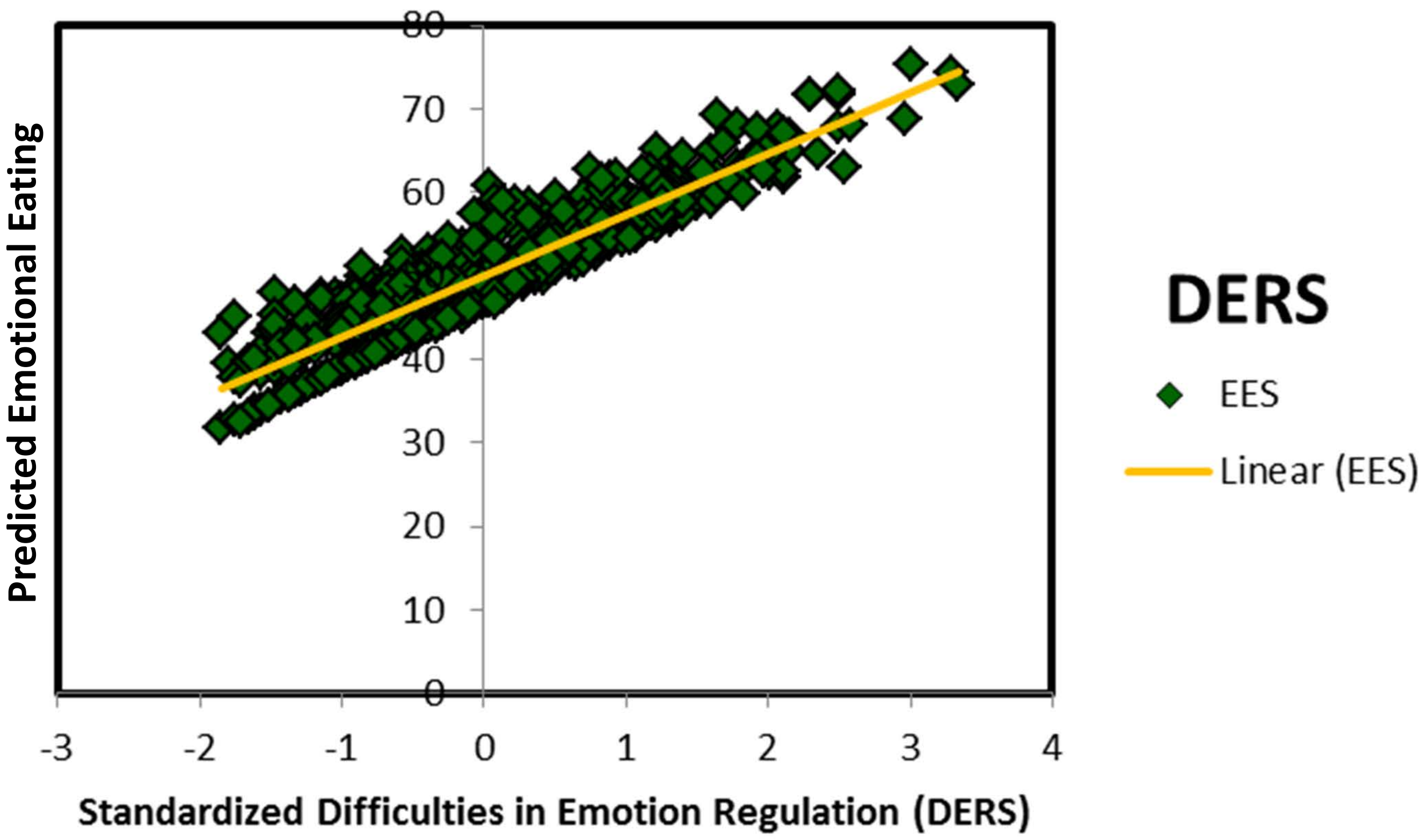
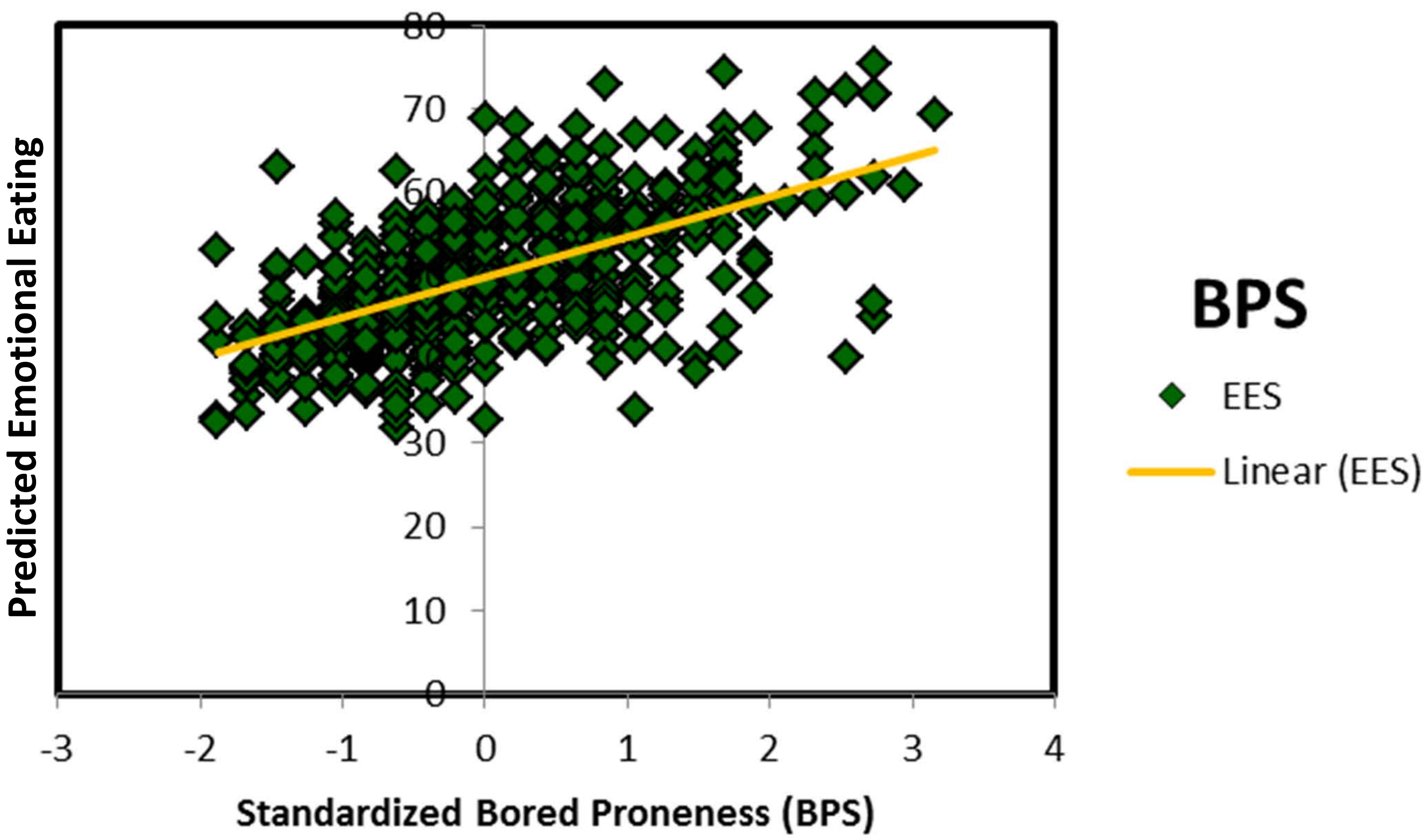
Sex, BPS, DERS, and their interactions were entered simultaneously to predict bored eating. The results indicated that women were more likely to engage in bored eating than men. Proneness to boredom ($\beta = .150$, $p < .01$), as well as difficulties in emotion regulation ($\beta = .276$, $p < .001$) predicted bored eating.

In order to test for the possibility that these variables would predict emotional eating independently of bored eating, Sex, BPS, DERS, and their interactions were also entered into equations to predict EES_{total} and the DEBQ Emotional scale, while controlling for bored eating.

Sex ($\beta = -.437$, $p < .001$), BPS ($\beta = .254$, $p < .05$), and DERS ($\beta = 1.05$, $p < .001$) predicted emotional eating as measured by the EES when bored eating was controlled. BPS was predictive of emotional eating on the DEBQ, when controlling for bored eating, $\beta = .124$, $p < .01$. Sex and difficulties in emotion regulation were both predictive of emotional eating, $\beta = -.321$ and $.299$, $ps < .001$. No interactions were significant.

Correlations among Primary Variables

Variable	1	2	3	4	5	6	7	8	9	10
1. Sex	—									
2. Activity	.24**	—								
3. BMI	.14**	-.08	—							
4. BPS	.07	-.14**	.10*	—						
5. DERS	.00	-.08	.06	.52**	—					
6. EESb	-.19**	-.12**	-.01	.27**	.39**	—				
7. EESo	-.15**	-.11*	.04	.27**	.42**	.77**	—			
8. DBQem	-.31**	-.15**	.05	.26**	.36**	.66**	.77**	—		
9. DBQex	-.02	-.03	-.02	.22**	.25**	.48**	.42**	.45**	—	
10. DBQre	-.34**	-.12**	.18**	.13**	.23**	.17**	.17**	.27**	.03	—
M		3159.1	23.7	8.94	82.2	14.2	49.9	32.0	31.1	25.4
SD		2435.6	3.8	4.76	21.2	4.8	17.5	11.2	6.1	9.0



Conclusions

- Proneness to boredom was predictive of bored eating independently of difficulties in emotion regulation and was also predictive of eating in response to other negative emotions.
- In every model we tested, except when external eating was the dependent variable, difficulties in emotion regulation predicted emotional eating.
- Similar to studies which have shown a relationship between neuroticism and problematic eating behaviors, it may be that the relationships observed in this study simply reflect a general association between the likelihood of experiencing negative emotion and eating in response to a variety of negative emotions.
- Findings suggest that strategies for dealing with boredom, or perhaps improving attentional control, and alternative means for coping with negative emotions might be employed to reduce the impact of emotional eating.