Interoceptive Awareness and Emotional Eating: The Role of Appetite and Emotional Awareness

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Emotional Eating

- Eating in response to an emotion rather than a physiological need (Moon & Berenbaum, 2009)
 - Results in an increase in unnecessary food intake (Macht, 2008)
- More common in women (Rommel et al., 2012)
- Can lead to an unhealthy weight, lower selfesteem, and depression (Brown et al., 2010)
 - Can contribute to development of eating disorders (Ouwens et al., 2009)



Interoceptive Awareness

- Sensitivity to stimuli originating from within the body
 - Ability to perceive and identify internal signals (Brown et al., 2010; Herbert & Pollatos, 2012)
- Difficulty perceiving internal bodily signals is a risk factor for the development of eating disorders (Fassino et al., 2004)







(Brown et al., 2010; Hill et al., 2011)

Appetite Awareness

- Appetite Awareness Training (AAT; Craighead & Allen, 1995)
 - Purpose is to improve ability to respond to internal cues for eating and therefore reduce overeating
 - Effectively reduces overeating and binge eating (Hill et al., 2011)
 - Deficits in appetite awareness are associated with binge eating



Emotional Awareness

Difficulty identifying feelings Misinterpretation of emotions as hunger Eat in response to the presence of emotions Pattern of Emotional Eating



(Hill et al., 2011)

Appetite and Emotional Awareness

- Separate constructs that have unique effects on disordered eating
 - Research on interventions for BED and BN specifically target appetite and emotional awareness, which results in symptom reduction (Brown et al., 2010; Hill et al., 2011)
- Each construct may serve different roles and have different implications for treatment
- Important to better understand these constructs in relation to emotional eating



Study Purpose: Aims 1 & 2

- Aim 1: To replicate the relationship between interoceptive awareness and emotional eating (e.g., Ouwens et al., 2009)
- Aim 2a: To examine the relationship between appetite awareness and emotional eating
- Aim 2b: To replicate the relationship between emotional awareness and emotional eating (e.g., Moon & Berenbaum, 2009)



Study Purpose: Aim 3

 Aim 3: To explore whether appetite or emotional awareness is a stronger predictor of emotional eating by examining these as concomitant predictors





Procedure

- Participants recruited from undergraduate classes
 - Eligible for extra credit
- Measures completed online through PsychData



Measures

Interoceptive Awareness Questionnaire- Expanded (IAQ-E) (Trenary et al., 2005) • Total Score	Interoceptive Awareness
Interoceptive Awareness Questionnaire- Expanded (IAQ-E) • Appetite Awareness Subscale	Appetite Awareness
 Toronto Alexithymia Scale-20 (TAS-20) (Bagby et al., 1994) Difficulty Identifying Feelings Subscale 	Emotional Awareness
Emotional Eating Scale (EES) (Arnow et al., 1995) • Total Score	Emotional Eating

Participants

- N = 147 female undergraduate students
- Age = 19.74 years
- BMI = 25.38 kg/m²



Results: Aims 1 & 2

Summary of Separate Simple Regression Analyses with Interoceptive, Appetite, and Emotional Awareness Predicting Emotional Eating (N=147)

Variable	В	SE B	β	F	р
Regression 1 Interoceptive Awareness	1.01	0.13	.54**	59.90**	.000
Regression 2 Appetite Awareness	1.74	0.23	.53**	55.72**	.000
Regression 3 Emotional Awareness	1.44	0.28	.39**	25.95**	.000

Note. $R^2 = .29$ for Regression 1; $R^2 = .28$ for Regression 2; $R^2 = .15$ for Regression 3.



Results: Aim 3

Simultaneous Multiple Regression Analysis with Appetite and Emotional Awareness Predicting Emotional Eating (N=147)

Variable	В	SE B	β	t	р
Step 1 Constant	-7.34	4.94		-1.49	.139
Appetite Awareness	1.45	0.26	.44	5.67	.000
Emotional Awareness	0.70	0.29	.19	2.46	.015

Note. $R^2 = .31$; F = 31.84.



Discussion

- Women with lower levels of interoceptive awareness report higher levels of emotional eating
- Decreased awareness of hunger and satiety cues, as well as emotions, may play an important role in emotional eating (Craighead & Allen, 1995; Moon & Berenbaum, 2009)



Discussion

- While appetite awareness and emotional awareness were unique predictors of emotional eating, the effect of appetite awareness was stronger
- Inability to identify emotions may have less of an impact than deficits in recognizing the most basic internal physiological sensations that direct eating
- Treatments such as AAT (Craighead & Allen, 1995) warrant further exploration with emotional eating



Limitations and Future Directions

Limitations

- Cross-sectional design
- Female college students
- Future Directions
 - Potential bi-directional associations
 - Explore optimal combination of appetite and emotional awareness in treating emotional eating
 - Clinical samples and men
 - Interoceptive exposure (Boswell et al., 2015)



Conclusion

- Expanded understanding of relationship between interoceptive awareness and emotional eating
- Appetite and emotional awareness are each separate, important aspects of interoceptive awareness in relation to emotional eating
- Target the improvement of both appetite and emotional awareness, with particular emphasis on appetite awareness, in treating emotional eating



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