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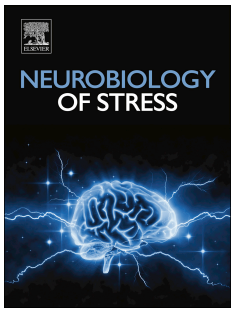

The potential of calibrated fMRI in the understanding of stress in eating disorders

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Abstract

Eating disorders (ED), including Anorexia Nervosa (AN), Bulimia Nervosa (BN), and Binge Eating Disorder (BED), are medically dangerous psychiatric disorders of unknown etiology. Accumulating evidence supports a biopsychosocial model that includes genetic heritability, neurobiological vulnerability, and psychosocial factors, such as stress, in the development and maintenance of ED. Notably, stress hormones influence appetite and eating, and dysfunction of the physiological stress response has been implicated in ED pathophysiology. Stress signals also appear associated with food reward neurocircuitry response in ED, providing a possible mechanism for the role of stress in appetite dysregulation. This paper provides a review of some of the interacting psychological, behavioral, physiological, and neurobiological mechanisms involved in the stress response among individuals with ED, and discusses novel neuroimaging techniques to address potential physiological confounds of studying neural correlates of stress in ED, such as calibrated fMRI.