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STRESS IN WOMEN WITH POSTPARTUM OBSESSIVE-COMPULSIVE DISORDER: A NEUROIMAGING STUDY

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Objective: Postpartum onset of anxiety disorders, particularly of obsessive-compulsive disorder (OCD) are rarely reported in the literature although frequently observed in the clinical setting. The obsessions and compulsions focus on the newborn and create immense distress. Research on the stress response in postpartum psychiatric populations is limited and the neural and neuroendocrine correlates of postpartum OCD is unclear. Few studies investigated the brain circuitry involved in OCD, very few included women and none in the postpartum period, and none of which focus on the stress reactivity underlying network.

The purpose of this study is to examine neural activation in women with postpartum OCD as compared to healthy postpartum women in response to a stress task using functional magnetic resonance imaging (fMRI).

Method: Subjects are females diagnosed with postpartum OCD and matched healthy controls. During the stress phase, fMRI is recorded to observe brain activity while subjects complete the Montreal Imaging Stress Task (MIST), a psychological stressor. Saliva samples are obtained before and after the stressor to assess the hormonal stress response along with subjective stress rating.

Results: To date, 9 postpartum OCD women and 10 controls completed the study. Preliminary analyses show that the majority of the subjects demonstrated an increase in subjective stress rating with postpartum OCD women experiencing the MIST more stressful compared to controls. As previously reported we observed deactivation throughout the limbic system in all subjects but only the postpartum OCD women also recruited the orbitofrontal cortex.

Conclusion: These preliminary observations are consistent with the literature and point toward a distinct stress brain activation pattern in postpartum OCD women. It is hoped that the results of this study will provide further insight into the nature of neurophysiological and neuroendocrinological involvement in postpartum OCD.