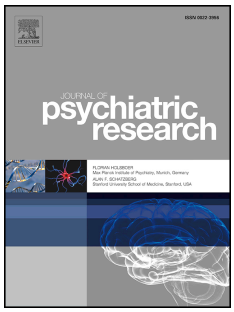
Accepted Manuscript



Individual differences in corticolimbic structural profiles linked to insecure attachment and coping styles in motor functional neurological disorders

Benjamin Williams, Rozita Jalilianhasanpour, Nassim Matin, Gregory L. Fricchione, Jorge Sepulcre, Matcheri S. Keshavan, W. Curt LaFrance, Jr., Bradford C. Dickerson, David L. Perez

PII: S0022-3956(18)30104-3

DOI: 10.1016/j.jpsychires.2018.04.006

Reference: PIAT 3348

To appear in: *Journal of Psychiatric Research*

Received Date: 26 January 2018

Revised Date: 16 March 2018

Accepted Date: 5 April 2018

Please cite this article as: Williams B, Jalilianhasanpour R, Matin N, Fricchione GL, Sepulcre J, Keshavan MS, LaFrance Jr. WC, Dickerson BC, Perez DL, Individual differences in corticolimbic structural profiles linked to insecure attachment and coping styles in motor functional neurological disorders, *Journal of Psychiatric Research* (2018), doi: 10.1016/j.jpsychires.2018.04.006.

Abstract

Background: Insecure attachment and maladaptive coping are important predisposing vulnerabilities for Functional Neurological Disorders (FND)/Conversion Disorder, yet no prior structural neuroimaging studies have investigated biomarkers associated with these risk factors in FND populations. This magnetic resonance imaging study examined cortical thickness and subcortical volumes associated with self-reported attachment and coping styles in patients with FND. We hypothesized that insecure attachment and maladaptive coping would relate to limbic-paralimbic structural alterations.

Methods: FreeSurfer cortical thickness and subcortical volumetric analyses were performed in 26 patients with motor FND (21 women; 5 men) and 27 healthy controls (22 women; 5 men). For between-group comparisons, patients with FND were stratified by Relationship Scales Questionnaire, Ways of Coping Scale-Revised, and Connor-Davidson Resilience Scale scores. Within-group analyses were also performed in patients with FND. All analyses were performed in the complete cohort and separately in women only to evaluate for gender-specific effects. Cortical thickness analyses were whole-brain corrected at the cluster-wise level; subcortical analyses were Bonferroni corrected.

Results: In women with FND, dismissing attachment correlated with reduced left parahippocampal cortical thickness. Confrontive coping was associated with reduced right hippocampal volume, while accepting responsibility positively correlated with right precentral gyrus cortical thickness. These findings held adjusting for anti-depressant