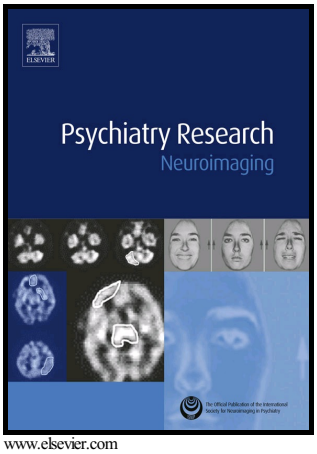

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Amygdala-based intrinsic functional connectivity and anxiety disorders in adolescents and young adults

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Abstract

Anxiety disorders (AD) are the most prevalent group of psychiatric disorders in adolescents and young adults. Nevertheless, its pathophysiology of anxiety disorders is still poorly understood. This study investigated differences in the functional connectivity of intrinsic amygdala-based networks of participants with and without AD. Resting state fMRI data were obtained from 18 participants with an AD and 19 healthy comparison individuals. Psychiatric diagnosis was assessed using standardized structured interviews. The comparison between groups was carried out using functional connectivity maps from six seed regions defined using probabilistic maps bilaterally within the amygdala (basolateral, superficial and centromedial amygdala). We found significant between-group differences in five clusters, which showed aberrant functional connectivity with the left basolateral amygdala: right precentral gyrus, right cingulate gyrus, bilateral precuneus, and right superior frontal gyrus in subjects with AD as compared with the comparison subjects. For the comparison subjects, the correlations between the amygdala and the five clusters were either non-significant, or negative. The