

Publication

Functional brain network dysfunctions in subjects at high-risk for psychosis: A meta-analysis of resting-state functional connectivity.

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Although emerging evidence suggests that altered functional connectivity (FC) of large-scale neural networks is associated with disturbances in individuals at high-risk for psychosis, the findings are still far to be conclusive. We conducted a meta-analysis of seed-based resting-state functional magnetic resonance imaging studies that compared individuals at clinical high-risk for psychosis (CHR), first-degree relatives of patients with schizophrenia, or subjects who reported psychotic-like experiences with healthy controls. Twenty-nine studies met the inclusion criteria. The MetaNSUE method was used to analyze connectivity comparisons and symptom correlations. Our results showed a significant hypo-connectivity within the salience network ($p=0.012$, uncorrected) in the sample of CHR individuals ($n=810$). Additionally, we found a positive correlation between negative symptom severity and FC between the default mode network and both the salience network ($p<0.001$, $r=0.298$) and the central executive network ($p=0.003$, $r=0.23$) in the CHR group. This meta-analysis lends support for the hypothesis that large-scale network dysfunctions represent a core neural deficit underlying psychosis development.

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