Medical Xpress

Researchers find neuroanatomical signature for schizophrenia

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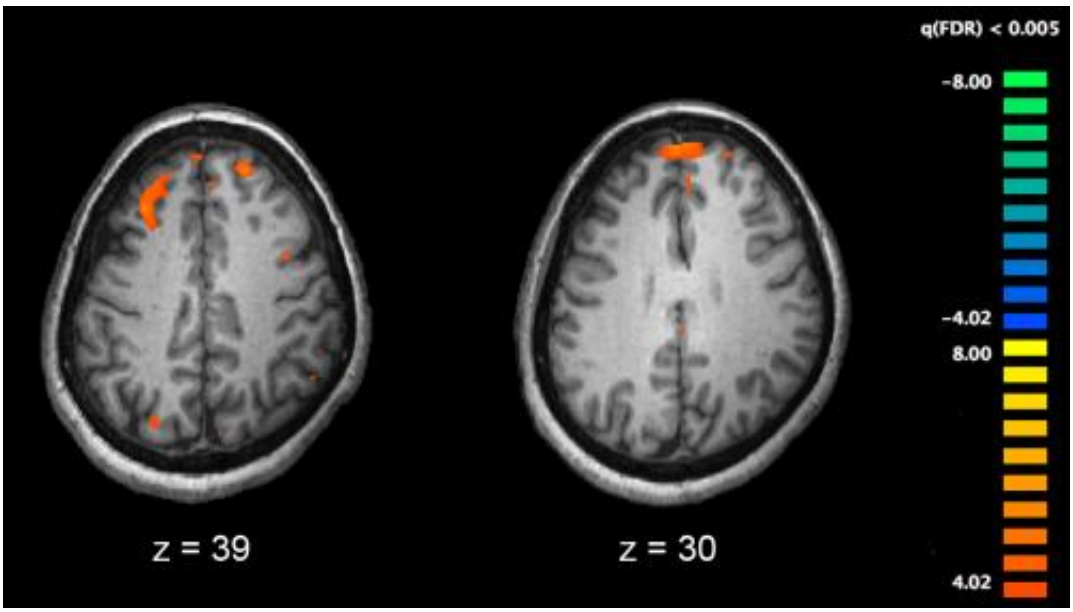

Functional magnetic resonance imaging (fMRI) and other brain imaging technologies allow for the study of differences in brain activity in people diagnosed with schizophrenia. The image shows two levels of the brain, with areas that were more active in healthy controls than in schizophrenia patients shown in orange, during an fMRI study of working memory. Credit: Kim J, Matthews NL, Park S./PLoS One.

While it is known that the incidence and outward symptoms of schizophrenia are strongly influenced by ethnic factors—for instance, patients from Asian ethnicities are more likely to experience visual hallucinations, whereas patients from western cultures and Caucasian

ethnicities are more likely to suffer from auditory hallucinations—it was unclear if brain deficits would differ amongst suffers from various ethnic backgrounds.

Previous research had indicated that there were neuroanatomical signatures for schizophrenia, but a study titled, "A Neuroanatomical Signature for Schizophrenia Across Different Ethnic Groups" by a team of researchers led by Qiyong Gong published in *Schizophrenia Bulletin* last month finds a consistent reduction in the gray matter volume [GMV] of the right anterior insula portion of the brain across all 4 ethnic groups (White Caucasians, African-Caribbeans, Japanese, and Chinese) examined in the study regardless of their symptoms, exposure to antipsychotic medication and image acquisition sequence. Building upon previous research showing consistent gray matter reduction in the right anterior insula—evident after a single episode of the illness—the authors conclude this reduction exists regardless of ethnic background.

Their work provides additional evidence that this region may provide valuable information that could be used to inform diagnostic evaluations in not only schizophrenia but other Axis I disorders such as bipolar disorder, depression, addiction, obsessive-compulsive disorder and anxiety regardless of ethnicity.

More information: The paper "A Neuroanatomical Signature for Schizophrenia Across Different Ethnic Groups" can be accessed here: schizophreniabulletin.oxfordjo … 0/schbul.sbv109.full

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