Scientists identify 8 genetic diseases that lead to schizophrenia

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Researchers have identified eight genetically different diseases that contribute to schizophrenia, a finding that debunks a previous belief that only one type of the condition existed.

"What we did with this research, after a decade of frustration in the field of psychiatric genetics, is identify the manner in which the genes interact with each other, in an orchestrated manner in the case of healthy patients, or disorganized, as happens in the cases that lead to the different types of schizophrenia", the authors of the paper, which was published Tuesday in the *American Journal of Psychiatry*, wrote.

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Researchers from the University of Granada in Spain and Washington University in St. Louis studied the gene networks of nearly 4,200 patients diagnosed with schizophrenia. Another 3,200 healthy patients acted as the control group.

The study authors divided the patients diagnosed with schizophrenia into different groups based on the type and severity of their symptoms. They then classified the profiles of these symptoms into eight different types of diseases based on their underlying DNA networks, according to a news release.

Scientists already knew that 80 percent of schizophrenia cases were hereditary, but they had yet to pinpoint the specific genes that linked to it. In the past, they had searched only for associations between individual genes and schizophrenia. But in the current study, researchers found 42 gene groups that were linked to a variety of symptoms for the condition. Researchers validated the gene groups in two independent samples of people diagnosed with schizophrenia.

The interaction networks of those gene groups appeared to provide a 70 to 100 percent risk scale for

predicting the condition, "which makes it almost impossible that individuals with those genetic variation networks will avoid schizophrenia," the researchers wrote.

By identifying these networks and their behavior in symptomatic schizophrenia patients, 'it will soon be possible to determine a possible localized treatment for the specific paths that cause schizophrenia," study co-author Igor Zwir, researcher at the University of Granada, said in the news release.