

# Study finds genetic links between schizophrenia and cannabis use

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(Reuters) - Genes that increase the risk of a person developing schizophrenia may also increase the chance they will use cannabis, researchers said on Tuesday after studying more than 1,000 users of the drug.

The results chime with previous studies linking schizophrenia and cannabis, but suggest the association may be due to common genes and might not be a causal relationship where cannabis use leads to increased schizophrenia risk.

Cannabis is the most widely used illicit drug in the world, and its use is higher among people with schizophrenia than in the general population.

"We know that cannabis increases the risk of schizophrenia. Our study certainly does not rule this out, but it suggests that there is likely to be an association in the other direction as well – that a pre-disposition to schizophrenia also increases your likelihood of cannabis use," said Robert Power, who led the study at the Institute of Psychiatry at King's College London.

Schizophrenia is a common and severe psychiatric disorder that affects around one in 100 people. People who use cannabis are about twice as likely as those who do not to develop it.

The disorder typically begins in late adolescence or early adulthood and its most common symptoms are disruptions in thinking, language and perception. It often includes psychotic experiences, such as hearing voices or delusions.

While the exact cause is unknown, research to date suggests a combination of physical, genetic, psychological and environmental factors can make people more likely to develop it.

Previous studies have found a number of genetic risk variants associated with schizophrenia, each of which slightly increases a person's risk of developing the condition.

Cannabis use has frequently been associated with it, but there is much debate about whether this is because of a direct cause, or whether there may be shared genes which predispose people to both cannabis use and schizophrenia.

A study published in March 2011 found that people who use cannabis in their youth dramatically increase their risk of psychotic symptoms, and that continued use of the drug can raise the risk of developing a psychotic disorder in later life.

And earlier research found that young people who smoke cannabis for six years or more are twice as likely to have psychotic episodes, hallucinations or delusions.

This latest study, published in the journal *Molecular Psychiatry* on Tuesday, included 2,082 healthy people of whom 1,011 had used cannabis. Each participant's genetic risk profile - the number of genes related to schizophrenia each of them carried - was measured.

The researchers found that people genetically predisposed to schizophrenia were more likely to use cannabis, and to use it in greater amounts than those who had no schizophrenia risk genes.

Power said the result "highlights the complex interactions between genes and environments" when it comes to cannabis as a risk factor for schizophrenia.

"Certain environmental risks, such as cannabis use, may be more likely given an individual's innate behavior and personality, itself influenced by their genetic make-up," he said, adding that this finding was important to consider when calculating the economic and health impact of cannabis.