

Cannabis Shows Promise In Treating Schizophrenia And Tourette Syndrome

By: Janet Burns

Despite cannabis' history in [folk pharmacopoeias](#), clinical studies of its medicinal impact remain limited in many areas. Based on some promising early results, researchers are now calling for a closer look at its applications for certain mental health conditions for which more 'traditional' treatments have come up short.

According to recent studies, the cannabis-derived chemical cannabidiol (CBD) may offer meaningful relief with [schizophrenia](#), a frequently chronic condition which can significantly interfere with how we think, feel, and behave.

At the University of Wollongong, researchers first discovered that CBD could provide new kinds of symptom relief for schizophrenic individuals by examining what science has uncovered about the chemical so far. To get a sense of CBD's impact on cognitive function in relation to schizophrenia, Dr. Katrina Green, Professor Nadia Solowij, and Wollongong Ph.D. candidate Ashleigh Osborne conducted a [detailed review](#) of 27 extant studies on the chemical and uncovered some "fascinating insights" about its potential therapeutic value.

In a [release](#), Green commented that CBD could provide direct neurological support for a range of conditions affecting the brain, from schizophrenia to dementia. "From this review, we found that CBD will not improve learning and memory in healthy brains, but may improve aspects of learning and memory in illnesses associated with cognitive impairment, including Alzheimer's disease, as well as neurological and neuro-inflammatory disorders," including hepatic encephalopathy, meningitis, sepsis, and cerebral malaria.

Green, who led the review, also noted that CBD may well be capable of reducing cognitive impairment that has been associated with THC, the main psychoactive component of cannabis, which has previously shown a potential to aggravate aspects of schizophrenia, anxiety, and other mental disorders.

Following the review, the researchers decided to put CBD's potential for easing cognitive schizophrenia symptoms to the test with their [own study](#) using a rat model. With help from Senior Professor Xu-Feng Huang and Ph.D. candidate Ilijana Babic, what they found was that "chronic" administration of CBD seemed to attenuate the cognitive deficits and social withdrawal that often afflict persons with schizophrenia, which the team simulated in rats using prenatal poly I:C infection.

"We found that CBD was able to restore recognition and working memory, as well as social behavior, to normal levels," Osborne said in a release. "These findings are interesting because they suggest that CBD may be able to treat some of the symptoms of schizophrenia that are seemingly resistant to existing medications. In addition, CBD treatment did not alter body weight or food intake, which are common side effects of antipsychotic drug treatment."

Osborne also explained to [ABC News Australia](#), "This is really important because current antipsychotic drugs don't address the cognitive deficits, which approximately 80% of patients with schizophrenia experience."

According to the Australian team, the results of their review and study indicate some promising possibilities for treating schizophrenia with CBD, but also that more scientific research is definitely in order.

"This is the first study to prove Cannabidiol can be used to treat symptoms of schizophrenia that aren't addressed by current medications," Osborne told ABC News. "These findings are really promising but further research is needed to see if these findings translate to people suffering from schizophrenia."

She added, "Ultimately, we hope that these findings lead to new improved medications."

According to a [recent study](#) on schizophrenia and cannabis use, people with a greater risk for schizophrenia are likelier than others to keep trying the plant for themselves in the meantime.



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In recent years, cannabis has also shown promise as a treatment for [Tourette Syndrome](#), characterized by involuntary physical or verbal tics that are often physically or socially painful to endure.

A [preliminary study](#) published this year provided a retrospective evaluation of cannabis' effectiveness and tolerability in treating adults with Tourette Syndrome. Conducted by researchers at the University of Toronto with support from the [Tourette Association of America](#), the study found that 18 of 19 participants were at least "much improved" after a regimen of inhaled cannabis, while tics scores for the whole group decreased by 60%.

As [NORML](#) reported, all of the study's participants experienced "clinically significant symptom relief," including reductions in irritability, impulsivity, anxiety, obsessive-compulsive symptoms, and rage outbursts. The drug was also well tolerated by the participants, with mostly minor side effects being reported.

Overall, the researchers wrote, "These study participants experienced substantial improvements in their symptoms, [which] is particularly striking given that almost all participants had failed at least one anti-tic medication trial. ... In conclusion, cannabis seems to be a promising treatment option for tics and associated symptoms."

As [NORML](#) pointed out, research has [previously](#) determined that oral doses of THC have helped to decrease tics and obsessive-compulsive behavior in patients with Tourette Syndrome by a hearty margin. Patients using inhaled cannabis, however, have "generally shown greater overall improvement."

See also: ['Iodine' Pools Thousands Of Patient Reviews To Help End The Pain Of Finding Medication](#)

Given that cannabis and the chemicals it contains have demonstrated promise or proven effectiveness in treating such ailments as pain, nausea, mental illness, multiple sclerosis, neuropsychiatric disorders, epilepsy, and various symptoms thereof, many patients and practitioners are hoping that the [Trump Administration](#) will allow more research on the plant going forward.

In recent months, however, members of the administration have indicated a desire to rather crack down on the drug's medicinal and recreational usage, at times due to the opinion--or, perhaps more accurately, the notion--that marijuana is [not a medicine](#).

According to Merriam-Webster, a medicine is "a substance or preparation used in treating disease;" according to our own [CDC](#), medicines are "used to treat diseases, manage conditions, and relieve symptoms."

As the CDC points out, medicines can also contain a number of different drugs, and thereby pose different health risks depending on each patient. For example, over-the-counter (OTC) pain medicines like Tylenol and Excedrin contain the drug acetaminophen, which can easily be overdosed on (and/or do real liver damage) by doubling the dose once or twice, regardless of its interactions with [other drugs](#), while over-dosing or incorrect use of OTC's like Advil and Aleve, which contain drugs called NSAIDs, cause [tens of thousands](#) of hospitalizations [each year](#), and [thousands](#) of [deaths](#), though exact estimates [vary](#).

Nevertheless, these drugs continue to be available as medicines because their perceived benefits are thought to outweigh the risks involved in taking them--an assessment which is critical for both doctors and drug manufacturers to perform, according to [the FDA](#).

And since research and experts have [consistently suggested](#) that the potential benefits of cannabis would far outweigh the risks and side-effects involved--enough to warrant further study, in the very least--hopefully our elected officials and appointed administrators will realign their sense of the plant with science's definition soon.

Janet Burns covers tech, culture, and [other fun stuff](#) from Brooklyn, NY. She also hosts the cannabis news podcast [The Toke](#).