



# CANNABIS AND SCHIZOPHRENIA: TRIGGER OR TREATMENT?

**A**s marijuana is becoming more popular and usage is on the increase, the question is often asked, does it serve as a trigger or treatment to people living with schizophrenia?

After numerous tests, scientists have found a correlation between marijuana and schizophrenia. Through a study conducted by researchers at Columbia University Medical Centre, it's been found that the risk of developing schizophrenia is higher in individuals who have a family history of the disorder, however, the use of marijuana is not a factor in the onset.

Schizophrenia is a complex and chronic brain disorder that includes symptoms such as delusions, hallucinations, trouble with thinking and concentration patterns along with a serious lack of motivation.

The study by the Department of Neurobiology at Columbia University Medical Centre has highlighted the following findings:

- People living with schizophrenia often use marijuana regularly but which came first? Using marijuana as a crutch for symptoms that pre-existed or were the symptoms induced by marijuana usage?
- Another factor considered by the research team are the strains of marijuana and their varying strengths. The stronger the strain, the sooner the onset of schizophrenia in people that have a family history of the disorder. In cases where individuals had no family history, the findings were inconclusive.

- To increase the levels of Tetrahydrocannabinol (THC), growers often add chemicals to make the high last longer. These chemicals are unknown to researchers, making the correlation unclear in some instances.

## EFFECTS OF MARIJUANA ON A PERSON LIVING WITH SCHIZOPHRENIA

In contrast, the symptoms of psychosis for a person living with schizophrenia increases with marijuana usage, which could result in severe outbursts and potentially lead to psychotic behaviours.

According to the prominent self-medication hypothesis, schizophrenia patients use substances to reduce the symptoms of their illness and



to counter the side effects of their antipsychotic medication. In the short term, this might reduce some of the extrapyramidal side effects, secondary negative symptoms and cognitive dysfunction associated with medication-induced D2 receptor-blockade. However, in the long term, this is likely to backfire and to exacerbate exactly these symptoms as a consequence of neuroadaptive mechanisms, associated with chronic drug exposure.

Consequently, this may also lead to

- More psychotic episodes
- Higher incidence of violent behaviour
- Multiple hospital admissions
- Increased cost of healthcare
- Longer hospital admissions
- Loss of income/unemployment
- Increased burden of medication
- Increased vulnerability to side effects
- Risk of medical problems especially cardiovascular diseases
- Comorbid psychiatric illnesses such as depression, anxiety and cognitive deficits
- Poor quality of life
- Homelessness
- Increased risk of suicide
- Early death

Unfortunately cannabis can negatively affect and interfere with patient's medication. Some studies have shown that using substances such as cannabis can decrease plasma levels (i.e. the amount of medication in the patient's blood) of common antipsychotics (medication used to treat schizophrenia) by approximately one-third in heavy users. This can lead to under-treatment at recommended dose of a given antipsychotic agent. Conversely, one could require larger doses of antipsychotic medication to treat some symptoms, which puts the patient at risk of experiencing side effects.

#### THE BURNING QUESTION

The study concludes that marijuana has a link to schizophrenia within certain populations, however, it does increase the possibility of schizophrenia through the following finding.

- If used by teenagers prior to their full brain development, they are at risk of being diagnosed with schizophrenia at an earlier stage than previous studies suggest.

Compared to schizophrenia patients who are not addicted to any substances, DD patients are usually

male and younger at the onset of the illness. It's estimated that one in six teenagers who experiment with cannabis will become addicted to it. Unfortunately the use of marijuana during adolescence may cause lasting cognitive deficits, even after sustained periods of abstinence.

Addressing the topic with your patient can be difficult, however, it's crucial to ask these tough questions in order to best treat the patient. A Health Care Professional (HCP) can say something like:

- *"Cannabis or marijuana [holy herb/weed/pot/mary jane etc] has recently been decriminalised in South Africa, and more people are using it recreationally like with cigarettes and alcohol. What type of substances/drugs do you use?"*
- The HCP can then give examples such as nicotine, alcohol, marijuana, rocks, speed, ecstasy, codeine, pain killers, sleeping tablets, etc? *Then ask what did you start with?*
- *When did you start using?*
- *What did you try next?*
- *How often do you use?*
- *How do you use it (different types of cannabis preparations currently - oils, creams, ingestables, smoked, etc.*
- *Then how much do you use on a typical day/week?*
- *On average how much do you spend in a week/month?*

Numerous studies mention that at some stage during their lifetime, as many as 50% to 65% of all schizophrenic patients meet the Dual Diagnosis (DD) criteria for schizophrenia and drug/substance use disorder. Thus, it's highly prevalent and can affect their management and the severity of the illness.

If you have a patient living with schizophrenia and using marijuana either for recreation or to self-medicate, encourage them to seek medical help. The schizophrenia24x7 website (<https://www.schizophrenia24x7.co.za>) also offers credible information on the disorder, the symptoms the treatment options available and can assist the person living with schizophrenia to get the help they need to live a fulfilled life. **MHM**

**References available upon request**

VOLUME 6 • ISSUE 6 • 2019

# MHMM

## MENTAL HEALTH MATTERS

**DO MEN WITH  
BIPOLAR  
DISORDER  
NEED A BETTER  
TREATMENT PLAN  
THAN WOMEN?**

**ADHD AND ITS  
COMORBIDITIES**

**CANNABIS AND  
SCHIZOPHRENIA**

**ARE WE GIVING UP  
ON THE ELDERLY  
TOO EASILY?**



Published by:  
**inhouse**  
PUBLICATIONS

**PROBLEMATIC  
INTERNET USE**

**Stressed out  
and sedated?  
Research  
surveying  
Substance  
abuse**

**EXTENDING  
THE  
POSITIVE  
EFFECTS OF  
EXPOSURE  
THERAPY**

**SLEEP AND  
THE PSYCHE**

**THE ART OF  
PSYCHIATRY**



*Making Mental Health Matter*