

## **Cannabis link to mental illness strengthened**

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The link between regular cannabis use and later depression and schizophrenia has been significantly strengthened by three new studies.

The studies provide "little support" for an alternative explanation - that people with mental illnesses self-medicate with marijuana - according to Joseph Rey and Christopher Tennant of the University of Sydney, who have written an editorial on the papers in the *British Medical Journal*.

One of the key conclusions of the research is that people who start smoking cannabis as adolescents are at the greatest risk of later developing mental health problems. Another team calculates that eliminating cannabis use in the UK population could reduce cases of schizophrenia by 13 per cent.

Until now, say Rey and Tennant, there was "a dearth of reliable evidence" to support the idea that cannabis use could cause schizophrenia or depression. That lack of good evidence "has handicapped the development of rational public health policies," according to one of the research groups, led by George Patton at the Murdoch Children's Research Institute in Melbourne, Australia.

The works also highlights potential risks associated with using cannabis as a medicine to ease the symptoms of muscular sclerosis, for example.

### **Pharmacological effect**

Patton's team followed over 1600 Australian school pupils aged 14 to 15 for seven years. Daily cannabis use was associated with a five-fold increased risk of depression at the age of 20. Weekly use was linked to a two-fold increase. The regular users were no more likely to have suffered from depression or anxiety at the start of the study.

The reason for the link is unclear. Social consequences of frequent cannabis use include educational failure and unemployment, which could increase the risk of depression. "However, because the risk seems confined largely to daily users, the question about a direct pharmacological effect remains," says Patton.

In separate research, a team led by Stanley Zammit at the University of Cardiff, UK, evaluated data on over 50,000 men who had been Swedish military conscripts in 1969 and 1970. This group represents 97 per cent of men aged 18 to 20 in the population at that time.

The new analysis revealed a dose-dependant relationship between the frequency of cannabis use and schizophrenia. This held true in men with no psychotic symptoms before they started using cannabis, suggesting they were not self-medicating.

### **Genetic factors**

Finally, researchers led by Terrie Moffitt at King's College London, UK, analysed comprehensive data on over 1000 people born in Dunedin, New Zealand in 1972 and 1973.

They found that people who used cannabis by age 15 were four times as likely to have a diagnosis of schizophreniform disorder (a milder version of schizophrenia) at age 26

than non-users.

But when the number of psychotic symptoms at age 11 was controlled for, this increased risk dropped to become non-significant. This suggests that people already at greater risk of later developing mental health problems are also more likely to smoke cannabis.

The total number of high quality studies on cannabis use and mental health disorders remains small, stress Rey and Tennant. And it is still not clear whether cannabis can cause these conditions in people not predisposed by genetic factors, for example, to develop them.

"The overall weight of evidence is that occasional use of cannabis has few harmful effects overall," Zammit's team writes. "Nevertheless, our results indicate a potentially serious risk to the mental health of people who use cannabis. Such risks need to be considered in the current move to liberalise and possibly legalise the use of cannabis in the UK and other countries."

Journal references: *British Medical Journal* (vol 325, p1195, p1199, p1212, p1183)