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Cannabis linked to earlier onset of psychosis – study

A new study has provided the first conclusive evidence that cannabis use significantly hastens the onset of psychotic illnesses during the critical years of brain development – with possible life-long consequences.

The first ever meta-analysis of more than 20,000 patients shows that smoking cannabis is associated with an earlier onset of psychotic illness by up to 2.7 years.

The analysis, by an international team including Dr Matthew Large, from the University of New South Wales (UNSW) School of Psychiatry and Sydney's Prince of Wales Hospital, is published today in the prestigious journal *Archives of General Psychiatry*.

In partnership with St Vincent's Hospital and The George Washington University School of Medicine and Health Sciences, the study set out to establish the extent to which use of cannabis, alcohol and other psychoactive substances affects the age at onset of psychotic illnesses such as schizophrenia.

Cannabis is the most widely used illicit drug in Australia with 33.5% of the population reporting use at some time, according to the 2007 National Drug Household Survey. Some 18% of all secondary school students aged 12-17 reported using the drug at some time in their life, according to the 2004 Secondary School Survey. (UNSW's National Cannabis Prevention and Information Centre <http://ncpic.org.au/>)

Building on several decades of research, the finding is an important breakthrough in the understanding of the relationship between cannabis use and psychosis, Dr Large said.

A number of previous studies have found an association between psychosis and the use of cannabis, alcohol and other psychoactive substances. However, the aim of this study was to specifically show the extent to which this is caused by cannabis use alone, he said.

The current findings support the view that cannabis use precipitates schizophrenia and other psychotic disorders, perhaps through an interaction between genetic and environmental disorders or by disrupting brain development, the team notes.

“The study re-analysed the results from 20,000 patients with schizophrenia or other psychotic illnesses from 83 previous studies. The study used meta-analysis – a modern statistical method – to show that an earlier onset of severe mental illness among substance users is a result of cannabis use, and cannot be explained by other factors such as alcohol use,” Dr Large said.

”Results of this study are conclusive and clarify previously conflicting evidence of a relationship between cannabis use and the earlier onset of a psychotic illness, with evidence supporting the theory that cannabis use plays a causal role in the development of psychosis in some patients.”

Dr Large said there was a high prevalence of substance use among individuals treated in mental health settings, and patients with schizophrenia were more likely to use substances than members of the wider community.

“The results of this study provide strong evidence that stopping or reducing cannabis use could delay or even prevent some cases of psychosis.

“The study raises the question of whether those substance users would still have gone on to develop psychosis a few years later.

“However, even if the onset of psychosis were inevitable, an extra two or three years of psychosis-free functioning could allow many patients to achieve important developmental milestones of late adolescence and early adulthood that could lower long-term disability arising from psychotic disorders,” Dr Large said.

“The results of this study confirm the need for an ongoing public health warning about the potentially harmful effects of cannabis.”

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