

Clinical reviews

Our panel of GPs review recent research papers in their specialist areas that may influence the way you practise

Reviewers

Addiction

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Mental health

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Respiratory disease

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Sexual health

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Smoking cessation

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Mental health

Regular cannabis use raises risk of psychosis

Daily cannabis use is associated with a three-fold increased risk of psychotic disorder, a multicentre, international case-control study has shown.

Patients aged 18-64 years who presented to mental health services in 11 sites across Europe and Brazil between May 2010 and April 2015 with a first episode of psychosis were recruited. All patients had been diagnosed using ICD-10 criteria.

The investigators also recruited controls from each of the local populations. Data were analysed on 901 cases and 1,237 controls.

The authors used data on the estimated concentration of Δ^9 -tetrahydrocannabinol (THC) for each study area in order to classify use as low (THC < 10%) and high (THC $\geq$ 10%) potency.

● Daily cannabis use was associated with an increased risk of psychotic disorder compared with never having used it; odds ratio (OR) 3.2 (95% CI: 2.2-4.1)

● Daily use of high-potency cannabis increased the odds further; OR 4.8 (95% CI: 2.5-6.3)

● Individuals who spent €20 or more a week on cannabis also had more than a two-fold increased risk of developing a psychotic disorder; OR 2.5 (95% CI: 1.6-3.8).

● Those who had started using high-potency cannabis by the age of 15 showed a doubling of risk; OR 2.3 (95% CI: 1.4-3.1)

In Amsterdam, London and Paris, the sites with highest consumption of high-potency cannabis, daily use of high-potency cannabis was associated with the greatest increase in odds for psychotic disorder compared with never use: OR 9.43 in Amsterdam; OR 5.16 in London and OR 4.28 in Paris.

Assuming causality, the authors estimate that 20% of new cases of psychotic disorder would be avoided if there was no daily cannabis use, and that if high-potency cannabis were no longer accessible the adjusted incidence rates for all psychotic disorder in Amsterdam would drop by around 50% from 37.9 to 18.8 cases per 100,000 person-years and in London by around 30% from 45.7 to 31.9 cases per 100,000 person-years.

Establishing simple causal relationships between complex behaviours and mental health outcomes is a challenge, and the link between cannabis use and psychosis provides a good example of this. While observational and some experimental studies had suggested a link between heavy cannabis use and the development of psychosis, other evidence, such as the increasing use of cannabis in some populations without an increase in the incidence of psychotic illness, had not.

This study provides the first confirmation that in areas where the prevalence of daily cannabis use and use of high-potency cannabis are high in the general population there is an excess of cases of psychotic disorder.

The study authors conclude: 'Our findings confirm previous evidence of the harmful effect on mental health of daily use of cannabis, especially of high-potency types. Importantly, they indicate for the first time how cannabis use affects the incidence of psychotic disorder. Therefore, it is of public health importance to acknowledge

alongside the potential medicinal properties of some cannabis constituents the potential adverse effects that are associated with daily cannabis use, especially of high-potency varieties.'

DR JEZ THOMPSON

Di Forti M, Freeman TP, Tripoli G et al. The contribution of cannabis use to variation in the incidence of psychotic disorder across Europe (EU-GEI): a multicentre case-control study *Lancet Psychiatry* 2019 Published Online March 19, 2019 <http://dx.doi.org/10.1016> »