Testing hypotheses about the relationship between cannabis use and psychosis.

Degenhardt L, Hall W, Lynskey M.
National Drug and Alcohol Research Centre, University of NSW, NSW 2052, Sydney, Australia.
l.degenhardt@unsw.edu.au

Abstract

AIM: To model the impact of rising rates of cannabis use on the incidence and prevalence of psychosis under four hypotheses about the relationship between cannabis use and psychosis.

METHODS: The study modelled the effects on the prevalence of schizophrenia over the lifespan of cannabis in eight birth cohorts: 1940-1944, 1945-1949, 1950-1954, 1955-1959, 1960-1964, 1965-1969, 1970-1974, 1975-1979. It derived predictions as to the number of cases of schizophrenia that would be observed in these birth cohorts, given the following four hypotheses: (1) that there is a causal relationship between cannabis use and schizophrenia; (2) that cannabis use precipitates schizophrenia in vulnerable persons; (3) that cannabis use exacerbates schizophrenia; and (4) that persons with schizophrenia are more liable to become regular cannabis users.

RESULTS: There was a steep rise in the prevalence of cannabis use in Australia over the past 30 years and a corresponding decrease in the age of initiation of cannabis use. There was no evidence of a significant increase in the incidence of schizophrenia over the past 30 years. Data on trends the age of onset of schizophrenia did not show a clear pattern. Cannabis use among persons with schizophrenia has consistently been found to be more common than in the general population.

CONCLUSIONS: Cannabis use does not appear to be causally related to the incidence of schizophrenia, but its use may precipitate disorders in persons who are vulnerable to developing psychosis and worsen the course of the disorder among those who have already developed it.