

# Young adult sequelae of adolescent cannabis use: an integrative analysis

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## Summary

### Background

Debate continues about the consequences of adolescent cannabis use. Existing data are limited in statistical power to examine rarer outcomes and less common, heavier patterns of cannabis use than those already investigated; furthermore, evidence has a piecemeal approach to reporting of young adult sequelae. We aimed to provide a broad picture of the psychosocial sequelae of adolescent cannabis use.

### Methods

We integrated participant-level data from three large, long-running longitudinal studies from Australia and New Zealand: the Australian Temperament Project, the Christchurch Health and Development Study, and the Victorian Adolescent Health Cohort Study. We investigated the association between the maximum frequency of cannabis use before age 17 years (never, less than monthly, monthly or more, weekly or more, or daily) and seven developmental outcomes assessed up to age 30 years (high-school completion, attainment of university degree, cannabis dependence, use of other illicit drugs, suicide attempt, depression, and welfare dependence). The number of participants varied by outcome (N=2537 to N=3765).

### Findings

We recorded clear and consistent associations and dose-response relations between the frequency of adolescent cannabis use and all adverse young adult outcomes. After covariate adjustment, compared with individuals who had never used cannabis, those who were daily users before age 17 years had clear reductions in the odds of high-school completion (adjusted odds ratio 0.37, 95% CI 0.20—0.66) and degree attainment (0.38, 0.22—0.66), and substantially increased odds

of later cannabis dependence (17·95, 9·44—34·12), use of other illicit drugs (7·80, 4·46—13·63), and suicide attempt (6·83, 2·04—22·90).

## **Interpretation**

Adverse sequelae of adolescent cannabis use are wide ranging and extend into young adulthood. Prevention or delay of cannabis use in adolescence is likely to have broad health and social benefits. Efforts to reform cannabis legislation should be carefully assessed to ensure they reduce adolescent cannabis use and prevent potentially adverse developmental effects.

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