

Web-only Commentary

Cannabis use, now widespread in many countries, is surrounded by controversy, a large part of which is related to its legal status. That harms accompany use of cannabis and other drugs is undisputed. Because cannabis is usually smoked, it should not be too difficult to compare the physical consequences of tobacco smoking with those of cannabis smoking, but no such comparison is yet available, and speculation continues.^{1,2} In this paper by Macleod *et al*, confusion is apparent when they say “it is probable that cannabis use is associated with some physical harm, as most users apparently smoke the drug with tobacco”. The psychological and social consequences of cannabis use present an even greater challenge, and data are also needed here, because objective evidence is needed in order to further medical knowledge and support political decision making. However, a key question in this context is, are any links that may be found causal or not? To address this, Macleod *et al* have examined the literature on cannabis and, as cross sectional studies cannot establish causality, they selected 16 longitudinal studies with what they considered to be good methodology. In this type of assessment, a meta-analysis is clearly inappropriate. It could also be argued that it is pointless to aim at producing an overall conclusion when considering 16 separate studies with different aims and outcome measures. That approach could lead to missing important lessons. In the event, their examination of these studies led them to suggest that a non-causal explanation is possible for most of the associations found between cannabis exposure and both psychological and social harm. They also found that cannabis use was consistently associated with reduced educational attainment and the use of other drugs and, if used at a young age, with increased subsequent problems. As far as mental illness is concerned, they accept that there is a four to fivefold relative risk of schizophrenia over 10–30 years of follow up, based mainly on the Swedish conscript study³ and the Dunedin study, which showed that a tenth of those who became cannabis users by the age of 15 developed schizophreniform disorder by the age of 26, compared with 3% of the remaining cohort,⁴ but hypothesise that if the association were truly causal, then the overall incidence of schizophrenia

would have doubled, which it has not. Against this last point it could be argued that most of the increase in cannabis use is relatively recent. It now has to be accepted that there is a link between cannabis use and psychosis—there are good reasons for suspecting that it is partly causal, perhaps in a vulnerable subset of individuals.⁵ Even though, as ever, “further research is needed”, the warning signals—at least for the link between cannabis and schizophrenia—are there, and it may well be time to take heed.

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