

Book review

Psychological Medicine, 42 (2012).

doi:10.1017/S0033291712001237

First published online 28 May 2012

Marijuana and Madness (2nd edn). Edited by D. Castle, R. M. Murray and D. C. D'Souza. (Pp. 252, \$85.00, ISBN: 978 1107 000216.) Cambridge University Press: New York, NY. 2011.

While the prevalence of cannabis use has declined in some countries (e.g. Australia), the quantity of quality psychiatric research related to this substance has increased. The first edition of this book was published in 2004. Eight years later, there is much new material in the second edition. The editorial writing group has expanded to three (David Castle and Robin Murray have been joined by Deepak Cyril D'Souza). The original 13 chapters have expanded to 21. New chapters explore the potential impact of cannabis use on neurodevelopment and the pubertal brain. Chapters related to the impact of cannabis use on brain function, and the epidemiological evidence implicating cannabis use as a causal factor related to schizophrenia, have been updated. The field is so active – perhaps we will not need to wait another 8 years for the third edition.

In recent years, the scope of research has expanded beyond the links between cannabis *versus* depression and schizophrenia. The second edition includes a new chapter on bipolar disorder. There is greater attention on the links between cannabis use and psychotic-like experiences (i.e. isolated, subclinical symptoms). With respect to the interaction between cannabis and genetic susceptibility, the field is moving very quickly. While very recent research suggests links between single nucleotide polymorphisms in candidate genes, cannabis and risk of schizophrenia (van Winkel, 2011), we have also witnessed well-powered null studies related to past favoured candidates (e.g. COMT polymorphisms; Zammit *et al.* 2011). Links between cannabis use and altered dopaminergic function remain tantalizing, but incomplete.

The attractive feature of cannabis and brain outcomes research is that this exposure should be modifiable. However, the effect size between the variables of interest is small – in other words, the number of people who would need to reduce cannabis use in order to prevent one person developing schizophrenia is large (several thousand) (Hickman *et al.* 2009).

The chapters are well written and the overall layout is excellent. Hopefully the next edition can have the colour plates appearing within the relevant chapters rather than bunched in the middle of chapter 11. This book will have a broad appeal. The chapter on treatment of cannabis use in those with psychosis will appeal to the clinician, but the book will be of greatest interest to the research community. The links between cannabis use and 'madness' has stimulated important epidemiology research, and also galvanized discoveries in molecular, cellular and neuroscience systems. It is a great example of 'translational epidemiology' (McGrath & Richards, 2009).

References

- Hickman M, Vickerman P, Macleod J, Lewis G, Zammit S, Kirkbride J, Jones P (2009). If cannabis caused schizophrenia – how many cannabis users may need to be prevented in order to prevent one case of schizophrenia? England and Wales calculations. *Addiction* 104, 1856–1861.
- McGrath JJ, Richards LJ (2009). Why schizophrenia epidemiology needs neurobiology – and vice versa. *Schizophrenia Bulletin* 35, 577–581.
- van Winkel R (2011). Family-based analysis of genetic variation underlying psychosis-inducing effects of cannabis: sibling analysis and proband follow-up. *Archives of General Psychiatry* 68, 148–157.
- Zammit S, Owen MJ, Evans J, Heron J, Lewis G (2011). Cannabis, COMT and psychotic experiences. *British Journal of Psychiatry* 199(5), 380–385.

JOHN J. McGRATH

(Email: j.mcgrath@uq.edu.au)