

## **An association between cannabis use frequency and experience of depression among adult Australian males: A prospective cohort study**

**BRENDAN QUINN**<sup>1,3,4</sup>, JENNIFER PRATTLEY<sup>1</sup>, REBECCA JENKINSON<sup>2,3</sup>, CLEMENT WONG<sup>1</sup>, KARLEE O'DONNELL<sup>1</sup>, RUKHSANA TAJIN<sup>2</sup>, BOSCO ROWLAND<sup>1</sup>

<sup>1</sup>*Families, Society and Lifecourse Research, Australian Institute of Family Studies, Melbourne, Australia;* <sup>2</sup>*Australian Gambling Research Centre, Australian Institute of Family Studies, Melbourne, Australia;* <sup>3</sup>*Burnet Institute, Melbourne, Australia;* <sup>4</sup>*Department of Epidemiology and Preventive Medicine, Monash University, Melbourne, Australia*

Presenter's email: [brendan.quinn@burnet.edu.au](mailto:brendan.quinn@burnet.edu.au)

**Introduction and Aims:** Cannabis use and depression commonly co-occur. Research findings regarding the longitudinal relationship between cannabis consumption and trajectories and outcomes of depression are mixed. We investigated the effect of recent (past-year) cannabis use on experience of depressive symptoms among adult Australian males over three time points between 2013 and 2021.

**Design and Methods:** Data were from surveys with adult *Ten to Men: The Australian Longitudinal Study on Male Health (TTM)* participants conducted in 2013/14, 2015/16 and 2020/21. Recent experience of depression was classified using the Patient Health Questionnaire (PHQ-9; higher scores indicate greater experience of depression). A multilevel growth model was developed to examine the effect of past-year cannabis use frequency on depression over time, controlling for key sociodemographic and psychosocial factors (N=11,621; 22,088 observations).

**Results:** Experience of depressive symptoms tended to decrease with age; the mean PHQ-9 score among 18-24-year-old men was 4.8 vs 3.9 for those aged 45+. Multilevel growth model findings showed that, irrespective of age, men who had recently used cannabis had significantly higher PHQ-9 scores on average vs those who had not recently used ( $\chi^2_{(3)}=97.4$ ,  $p<0.001$ ). The estimated difference in average PHQ-9 score between using cannabis most frequently (approx. weekly or more) vs not at all was 1.5 (approx. 6% higher on the PHQ-9 scale) ( $p<0.001$ ).

**Discussion and Conclusions:** Cannabis use frequency was positively and significantly associated with experience of depressive symptoms among adult TTM participants.

**Implications for Practice or Policy:** As jurisdictions worldwide move to legalising recreational cannabis use, policymakers, practitioners and people who use cannabis need to be knowledgeable about the potential mental health outcomes of frequent consumption. The utility of using cannabis to counter depressive symptoms also needs to be better understood, and acknowledged as a key motivation for some people who use cannabis.

**Disclosure of Interest Statement:** The authors report no conflicts of interest. TTM is conducted in partnership with the Australian Government Department of Health.