

Cannabis vaping: a systematic review and meta-analysis of its sociodemographic, behavioural and psychological correlates

JACK CHUNG^{1,2}, **CARMEN LIM**^{1,2}, **JANNI LEUNG**^{1,2,3}, **DANIEL STJEPANOVIC**¹, **WAYNE D. HALL**^{1,4}, **GARY C. K. CHAN**¹

¹ *National Centre for Youth Substance Use Research, The University of Queensland, Brisbane, Australia,* ² *School of Psychology, The University of Queensland, Brisbane, Australia,* ³ *National Drug and Alcohol Research Centre, UNSW Sydney, Sydney, Australia,* ⁴ *Queensland Alliance for Environmental Health Sciences, The University of Queensland, St Lucia, QLD, 4072, Australia*

Presenter's email: <yiuchak.chung@uq.edu.au>

Introduction and Aims: In recent years, electronic vaporisers have been adopted to deliver psychoactive substances such as cannabis and its derivatives apart from nicotine. Cannabis vaping as the route of administration has increased in popularity among young people. To date, no study has reviewed the correlates of cannabis vaping among youths. This systematic review summarised evidence on the sociodemographic, behavioural and psychological correlates of cannabis vaping.

Design and Methods: A systematic search was conducted using PubMed, PsycINFO, Scopus and Web of Science for original research published since 2003. Publications reporting the correlates of cannabis vaping in the general youth population were included. Quality assessment was conducted using the Modified Newcastle-Ottawa Scale. Random effects meta-analysis was performed on correlates with sufficient data.

Results: Twenty-two studies met eligibility criteria (n=258,798). Eighteen studies focussed on adolescent while four studies focussed on young adult populations. All included studies were from the U.S. and Canada. Across all age groups, males were more likely to vape cannabis than females (pooled adjusted OR=1.76; 95%CI=1.49-2.06). The odds of cannabis vaping were higher among older than younger adolescents. Ethnicity, socio-economic status, education and mental health were not consistently associated with increased risk of cannabis vaping.

Discussions and Conclusions: Our study indicated that certain socio-demographic groups were more prone to use vaping as a route of administration for cannabis. This review highlighted the need to explore and allocate necessary resources to the identified groups, as frequent long-term use of cannabis vaping has been associated with deleterious health effects later in life.

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