Research commentary by Dr Peter Gates

Across the literature regarding the harms associated with cannabis use, two important factors are commonly referenced: 1) the "age of initiation" (how old an individual was when they first used cannabis; with concerns that early use may interrupt normal cognitive and physical development) and, 2) the severity of use (which commonly refers to either frequency and quantity of use, but also diagnosis of cannabis use disorder). Consequently, it is a significant public health concern to see people initiating cannabis use at younger ages and using it frequently during adolescence and early adulthood, even despite intervention. Interestingly, the finer details of what constitutes severity of cannabis use are often ignored. Indeed, there is relatively little research regarding the harms associated with cannabis use which investigates both cannabis use frequency and quantity, with the majority of studies addressing only cannabis use frequency. Similarly, less research investigates cannabis use frequency and quantity as well as cannabis-related problems such as symptoms of cannabis use disorder.

A notable recent longitudinal study on cannabis harms has assessed the impact of both cannabis use frequency and symptoms of cannabis use disorder. This research drew data from the Cohort Study on Substance Use Risk Factors (C-SURF) ? a study completed by all males of conscription age (20.0 [SD=1.2] years) in Switzerland, with an optional follow-up completed an average of 15 (SD=2.8) months later. A total of 5223 Swiss males completed both assessments (87.2% of the baseline total), 5084 with complete data. Specifically, the survey assessed cannabis use; symptoms of cannabis use disorder; depression; as well as mental and physical health (assessed by the 12-item Short Form Health Survey and an accident/injury assessment).

Results from this study supported previous work demonstrating the cannabis use status in young adulthood, with 84.5% of the sample reporting the same cannabis use status at baseline and at the time of the follow-up survey. In contrast, 8.3% reported "late onset" (use at follow-up but not baseline) and 7.2% reported "maturing out" (use at baseline but not follow-up). Similarly, the frequency of cannabis use and number of cannabis use disorder symptoms did not change significantly between surveys. Following more detailed analysis, the authors reported that the number of symptoms of cannabis use disorder that were reported was a stronger predictor of negative health outcomes compared to cannabis use frequency (controlling for frequency of use and symptoms of cannabis use disorder, respectively). That is, those reporting symptoms of cannabis use disorder at baseline or follow-up were particularly likely to report health concerns, even compared to those reporting frequent use.

Of course the generalizability of the results is questionable, given that the sample was comprised entirely of males in their early twenties, however; the results highlight the importance of investigating not only cannabis use frequency, or quantity, or related problems ? but rather, investigating their combination. Thankfully, an increasing number of researchers recognise the utility of assessing more of the complexities of cannabis use. For example, along with the intricacies regarding the severity of cannabis use, the importance of considering

route of administration and the significance of cannabis potency (that is, the specific content of cannabinoids in the cannabis plant) are also often overlooked. These are just some of the hurdles to cross when investigating this most commonly used illicit substance. It is no coincidence that there is still much to learn despite decades of study and centuries of use.

<div id="cke_pastebin"> **Baggio, S., N'Goran, A. A., Deline, S., Studer, J., Dupuis, M., Henchoz, Y., & Gmel, G. (2014).**</div>
<div id="cke_pastebin"> *Patterns of cannabis use and prospective associations with health issues among young males*</div>
<div id="cke_pastebin"> *Addiction 109, 937-945.*</div>
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