

Cannabis use and non-cancer chronic pain

The Article by Gabrielle Campbell and colleagues in *The Lancet Public Health* (July 2018)¹ has received worldwide publicity as a demonstration that cannabis is ineffective in treating non-cancer pain. With medicinal cannabis policy in rapid transition, and chronic pain a leading indication for cannabis use,² high-quality studies are needed to better inform current debates. Unfortunately, this study¹ is not one of them.

This prospective cohort study involved questioning patients with chronic pain prescribed opioids about their recent use of (illicitly sourced) cannabis. The cannabis users (n=157) were compared with non-users (n=1047) on subjectively reported pain, disability, and anxiety. Although cannabis users reported that the drug was effective in relieving their pain, and despite their >45% reduction in opioid use over 4 years, the authors inferred from their statistical model that cannabis is ineffective in treating pain, and has no opioid-sparing effects.

The study is adrift with confounds. Patients with a severe and refractory illness are known to gravitate towards cannabis products.³ Indeed, the authors' previous study⁴ using the same cohort showed that patients who used cannabis were on higher opioid doses for longer than were non-users, with greater pain and poorer function. The inequality in groups at baseline is evident in table 2 of their Article,¹ but is barely commented upon.

The study design did not control for the dosing or formulation of cannabis consumed and allowed no objective confirmation of self-reported cannabis use (or non-use). Some apparent cannabis users could have only been consuming once per month. Given illicit sourcing, it can be assumed that most users are consuming street cannabis

containing high concentrations of Δ^9 -tetrahydrocannabinol via bongs or joints, perhaps even with tobacco.² This method of consumption is hardly medicinal, and considering that cannabis has more than 500 bioactive molecules varying greatly across cultivars and preparations, some strains might treat pain better than others.

An informative study would involve medically supervised administration of a standardised cannabinoid product within a structured pain management regimen. Such studies, although rare, tend to show medicinal cannabis efficacy in people with chronic pain.⁵ Opioid-sparing effects of medicinal cannabis are increasingly apparent from epidemiological data.⁶

Finally—it would appear important to note the authors' potential conflicts of interest listed in their Article, which includes links with opioid manufacturers.

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