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Is the grass really greener for anxiety? Evaluating the effectiveness of medicinal cannabis for anxiety symptoms

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Abstract

Background and Aims: Since medicinal cannabis was rescheduled to a controlled prescription medication in Australia in 2016, prescribing has increased markedly, with anxiety being the second most common condition treated since 2017. However, the evidence supporting its effectiveness remains inconsistent, with limited rigorous investigation specific to anxiety disorders.

Our study evaluated longitudinal changes in anxiety symptoms, following initiation of medicinal cannabis treatment in individuals diagnosed with anxiety or post-traumatic stress disorder (PTSD).

Design and Methods: Using a retrospective follow-up study of a cohort using data from the Australian Emyria Clinical e-Registry, we examined medicinal cannabis naïve adults (≥18 years) with anxiety or PTSD, who commenced treatment with medicinal cannabis (December 2018-November 2022) and completed baseline DASS-21 and at least one follow-up assessment. We excluded participants with psychosis, bipolar disorder, or recent cannabis use. We investigated whether age, gender, diagnosis of depression, pain, insomnia and concomitant medications were associated with clinically meaningful improvement in anxiety, defined as a ≥4-point decrease on the DASS-21 anxiety subscale (standardised to a 0-42 scale) at 90-day follow-up. Associations were tested using independent sample t-tests or chi-squared tests, as appropriate.

Results: Overall, of the 483 eligible participants, 237 (49%) experienced a clinically meaningful reduction in DASS-21 anxiety scores at 90-day follow-up. Higher baseline anxiety severity was significantly associated with greater symptom reduction (66% with severe anxiety vs 14% with normal levels; p=0.001). No significant differences in anxiety improvement were observed by age (48.7 vs 49.4; p=0.633) or gender (47.3% males vs 51.1% females; p=0.403). Participants on sleep medication were less likely to improve (47.1% yes vs 52.9% no; p=0.585), while no significant differences were observed with use of other medications or comorbid diagnosis. Participants who improved in anxiety also showed significantly greater reductions in total DASS-21, depression and stress scores (all p=0.001).

Conclusions: Medicinal cannabis was associated with reductions in anxiety, particularly among those with greater baseline severity. These findings help address the evidence gap regarding the effectiveness of medicinal cannabis for anxiety disorders and may inform clinical decision-making and guide future research.

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