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**Statement on clinical treatment practice**  
using cannabis in the treatment of patients  
with symptoms of Posttraumatic Stress Disorder (PTSD)  
in an outpatient office

We are a general medical and psychiatric practice in the city of Steinheim (Germany). We treat patients with a wide range of diagnoses. Many patients find their way to us because we are widely known experts in the application of medical cannabis in Germany. Patients are usually in our care for years or switch to their family doctor after successful initiation of treatment. Patients seek us out for regular consultations or these are conducted via video, usually on a quarterly basis. We have seen about 3500 patients and currently treat about 800 patients with cannabis.

Patients treated at our facility primarily use cannabis flowers, which they vape. The use of extracts or synthetic cannabis products accounts for less than 10% in our practice.

For cannabis treatment, patients receive dosage instructions from us physicians. We have learned in the last 5 years of legal cannabis prescription in Germany that patients need individualized strategies regarding their dosage. This means that patients are not assigned a specific dose in a way that is determined by their clinical picture, for example, but that this dose is adjusted accordingly in coordination with the effects and side effects that are produced individually. We then change the dosage prescription accordingly, as long as the patient's idiosyncrasy allows it and there is no evidence of the development of problematic use. The doses used in treatment of different disorders (e.g. acne inversa, psoriasis, ADHD, Morbus Crohn, colitis ulcerosa) is usually in the range of 0,5 to 3 gr. cannabis per day (usually with preparations of 20-25% THC and some CBD). We did not see cases where this leads to significant problems in everyday life performance.

We have treated approximately 50 patients with post-traumatic stress disorder with cannabis to date. Usually, cannabis is then the only medication the patient receives for the PTSD. The dosages range from 0.5 to 2.5 g (inhaled via vaporizer) in 3 to 7 applications per day. Our experience shows that the dosage and the frequency of intake must be adapted to each patient individually. This is done in close cooperation with the patient. Only after the individually adapted effective dosage has been found in the dosing phase are the patients given fixed dosing instructions. In many patients, it also turns out that the patients have to adjust the dose individually due to the changing severity of the symptoms on a daily or weekly basis, for which the patients are given appropriate leeway by the doctors (cf. Müller-Vahl & Grotenhermen 2019).

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The sorts of cannabis flowers available in Germany, which are primarily used for treating PTSD symptoms have 20-25% THC and usually 1-5% CBD, sometimes up to 9-14% CBD.

The results of the treatment of PTSD with cannabis flowers can be described as good from a clinical point of view. Patients consistently report a decrease in flashbacks, nightmares, and sleep disturbances. In addition, anxiety, hyperarousal, and avoidance behaviors are reduced in a clinically relevant manner. Our results come from clinical practice. They cannot meet scientific standards, if only because they are naturally subject to selection bias. Nevertheless, the consistency of the results is impressive.

Our treatment results confirm a reduction of anxiety and flashbacks in PTSD as described by Raymundi et al. (2020) and Chadwick et al. (2020). Data from case series and smaller studies show that the overall condition of PTSD patients treated with cannabis improves significantly in many cases (e.g. Betthausen et al. 2019, LaFrance et al. 2020). However, treatment is not tolerated by all patients; may even worsen symptomatology (e.g. Dagan & Yager 2020). If treatment is tolerated and effective, symptom reductions of more than 50% are common (LaFrance et al. 2020). Most of our PTSD patients report even better success rates in the range of 50 to 80% symptom reductions, but this is not representative. We see reductions especially in respect to flashbacks, nightmares, sleep, anxiety and affective dysregulation, which are common in PTSD patients (cf. Black et al. 2019, Hindocha et al. 2020). However, a recent placebo-controlled double-blind study using standardized daily dosing did not show significant improvement of PTSD symptoms in the cannabis-treated group (Bonn-Miller et al. 2021).

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## References

Betthausen K, Pilz J, Vollmer LE (2015) Use and effects of cannabinoids in military veterans with posttraumatic stress disorder. *J Health Syst Pharm* 72: 1279-84

Black N, Stockings E, Campbell G, Tran LT, Zagic D, Hall WD, Farrell M, Degenhardt L (2019) Cannabinoids for the treatment of mental disorders and symptoms of mental disorders: a systematic review and meta-analysis. *Lancet Psychiatry* 6: 995-1010

Bonn-Miller MO, Sisley S, Riggs P, Yazar-Klosinski B, Wang JB, Loflin MEL, Shechet B, Hennigan C, Matthews R, Emerson A, Doblin R (2021) The short-term impact of 3 smoked cannabis preparations versus placebo on PTSD symptoms: A randomized crossover clinical trial. *PLoS ONE* 16(3): e0246990. <https://doi.org/10.1371/journal.pone.0246990>

Chadwick VL, Rohleder C, Koethe D, Leweke FM (2020) Cannabinoids and the endocannabinoid system in anxiety, depression, and dysregulation of emotion in humans. *Curr Opin Psychiatry* 33: 20-42

Dagan Y, Yager J (2020) Cannabis and Complex Posttraumatic Stress Disorder: A Narrative Review With Considerations of Benefits and Harms. *J Nerv Ment Dis* 208: 619-627

Müller-Vahl K, Grotenhermen F (2019) Cannabis und Cannabinoide in der Medizin. Berlin: Medizinisch-Wissenschaftliche Verlagsgesellschaft

Hindocha C, Cousijn J, Rall M, Bloomfield MAP (2020) The Effectiveness of Cannabinoids in the Treatment of Posttraumatic Stress Disorder (PTSD): A Systematic Review. *J Dual Diagn* 16: 120-139

LaFrance EM, Glodosky NC, Bonn-Miller M, Cuttler C (2020) Short and Long-Term Effects of Cannabis on Symptoms of Post-Traumatic Stress Disorder. *J Affect Disord* 274: 298-304

Raymundi AM, da Silva TR, Sohn JM, Bertoglio LJ, Stern CA (2020) Effects of  $\Delta^9$ -tetrahydrocannabinol on aversive memories and anxiety: a review from human studies. *BMC Psychiatry* 20: 420-426