

Translating Evidence Based Medical Principles to Evidenced Based Politics
SB 17-017 Allow Medical Marijuana for Stress Disorders

Acute Stress Disorder and Post Traumatic Stress Disorder are serious, debilitating medical diagnoses. Because the disorder is common among our military veterans, these conditions engender an especially large emotional burden. It behooves the Colorado Assembly to legislate on the basis of sound medical evidence to ensure that the state faithfully executes its obligations to these vulnerable individuals.

Cannabis and cannabinoid drugs are frequently recommended in the popular press and on-line resources to relieve a host of medical problems. Unfortunately, the evidence supporting their use is very limited. An often cited reference utilized a systematic review and meta-analysis to assess cannabinoids for medical use.¹ The study concluded that there was moderate quality of evidence to support the use of cannabinoids for treatment of chronic neuropathic/cancer pain and spasticity due to MS, low quality of evidence for treatment of nausea and vomiting due to chemotherapy, weight gain in HIV infection, sleep disorders and Tourette syndrome. There was insufficient information to assess its efficacy for Stress Disorder and PTSD. While there are some indications (largely from animal studies, anecdotal reports or very small studies) that cannabinoids may temporarily improve sleep quality, frequency of nightmares and hyperarousal in PTSD, there are no large scale, randomized controlled studies to establish their utility.²⁻³ On the other hand there appears to be a correlation between PTSD and pathological cannabis use. Some researchers have warned that endocannabinoid activation by marijuana may lead to deleterious consequences including receptor down regulation and addiction.⁴ Furthermore, the only large observational study of veterans with PTSD found that marijuana use was associated with worse outcomes in PTSD symptom severity, violent behavior and measures of drug/alcohol use.¹⁵

Cannabis and cannabinoids have other potential adverse effects.^{1,5,6} Marijuana doubles the risk of involvement in a motor vehicle accident. Paranoid ideation and psychosis may occur in response to high doses of THC. Cannabis use disorders are positively associated with anxiety, depression, and substance use disorders.⁶⁻⁸ Marijuana addiction, which is common in patients with PTSD, can cause significant problems at work, at school, and in relationships.⁴ Multiple studies suggest that marijuana use is associated with structural changes in the brain of adolescents and young adults primarily in areas of high cannabinoid receptors.⁹⁻¹² This may translate into significant, potentially irreversible, cognitive dysfunction that impacts educational achievement and employment opportunity.¹³ Finally, marijuana is associated with an increased incidence of chronic bronchitis, respiratory tract infections, and pneumonia. Preliminary evidence suggests an association with myocardial infarction, stroke and peripheral vascular

disease. Studies are inadequate to exclude an association of marijuana and cancer. At least one large longitudinal study of males demonstrated an increase in mortality in those who were heavy users of cannabis.¹⁴

In view of the undocumented benefit in Stress Disorder and PTSD and the known adverse effects of cannabis use, it would seem premature for the Colorado Assembly to essentially endorse the use of cannabis for these conditions. While some of the preclinical studies and small trials raise hopes that medical marijuana could be an effective treatment for PTSD, other studies flash caution.

I would propose that the legislature defer action on this bill till the results of randomized controlled studies (or at least large case series) suggest that marijuana benefits outweigh the risks for patients with PTSD.⁵ To do otherwise is placing vulnerable Coloradoans at risk and delegitimizing the Colorado Assembly by establishing a precedent of following anecdote over science. For those Coloradoans who feel that marijuana is indispensable for their treatment, (until the benefits of medical marijuana is established) they have ready access to the recreational marijuana market.

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References:

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