EFFICACY AND TOLERABILITY OF SELECTED CANNABINOIDS FOR PAIN: A SYSTEMATIC REVIEW AND META-ANALYSIS

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ABSTRACT

Pain management is a complicated challenge for clinicians and a severe limitation to patients' lives; thus, cannabinoids were developed because they efficiently reduce chronic pain. However, the subject stays highly contentious in the public and clinical settings due to constraints in evidence and education. Hence, a systematic review and meta-analyses of double-blinded placebo-controlled randomized controlled clinical trials were undertaken to assess the efficacy of cannabinoids in pain management and patients' tolerability to the therapy. Databases such as ScienceDirect, PubMed, and the US CLINICAL TRIALS were searched from January 2015 to March 2022. After implementing PRISMA, studies with adult participants experiencing any type of pain with pain intensity measured using a numerical rating scale were included. Seven trials were reviewed, and qualified studies underwent meta-analyses for efficacy and tolerability. The pooled overall effect measure for efficacy of pain management revealed an SMD= -0.44 ($p < 0.05$) in favor of Cannabinoids compared to placebo. The pooled overall effect measure for patient tolerability on therapy revealed a Risk ratio= of 1.007 ($p > 0.05$), with no significant difference in the tolerability between cannabinoids and placebo. The two meta-analyses manifested substantial heterogeneity and publication biases that serve as a limitation of this review.

Keywords: Pharmacy Education, cannabinoids, pain management, sativex, nabiximols, cannabidivarin, dronabinol, systematic review, meta-analysis, efficacy, tolerability, Philippines