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## Endocannabinoid system dysfunction in mood and related disorders.

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### Author information

#### Abstract

**OBJECTIVE:** The endocannabinoid (EC) system is widely distributed throughout the brain and modulates many functions. It is involved in mood and related disorders, and its activity may be modified by exogenous cannabinoids. This article examines the therapeutic potential of cannabinoids in psychiatric disorders.

**METHOD:** An overview is presented of the literature focussed on the functions of the EC system, its dysfunction in mood disorders and the therapeutic potential of exogenous cannabinoids.

**RESULTS:** We propose (hypothesize) that the EC system, which is homoeostatic in cortical excitation and inhibition, is dysfunctional in mood and related disorders. Anandamide, tetrahydrocannabinol (THC) and cannabidiol (CBD) variously combine antidepressant, antipsychotic, anxiolytic, analgesic, anticonvulsant actions, suggesting a therapeutic potential in mood and related disorders. Currently, cannabinoids find a role in pain control. Post mortem and other studies report EC system abnormalities in depression, schizophrenia and suicide. Abnormalities in the cannabinoid-1 receptor (CNR1) gene that codes for cannabinoid-1 (CB1) receptors are reported in psychiatric disorders. However, efficacy trials of cannabinoids in psychiatric disorders are limited but offer some encouragement.

**CONCLUSION:** Research is needed to elucidate the role of the EC system in psychiatric disorders and for clinical trials with THC, CBD and synthetic cannabinoids to assess their therapeutic potential.

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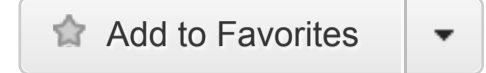
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