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Editorial

## Science Is Not Opinion

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# Science Is Not Opinion

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Contemporary medicine faces an expanding epistemological challenge: the erosion of scientific critique in the face of seductive yet fragile narratives. The debate surrounding the use of cannabis under the label of “medicinal” is an emblematic example of this phenomenon. The assertion that science is not opinion is not a rhetorical flourish—it marks the boundary separating safe clinical practice from the logic of marketing, social pressure, and belief systems that do not submit themselves to criteria of verifiability.

In a context where discourses about “natural products,” “alternative therapies,” and “autonomy in care” are gaining prominence, it becomes essential to reaffirm the nature of medicine: a practice grounded in

systematically evaluated evidence, not in subjective perceptions or rhetorical constructions.

The publication of the systematic review in *JAMA* in November 2025 reinforces this point. The work synthesizes decades of studies and demonstrates, clearly, that “the evidence is insufficient for most indications for which cannabis is promoted.” The contrast between scientific findings and the widely disseminated narrative—supported by personal testimonies, specialized media, and the global expansion of dispensaries—reveals a structural discrepancy between discourse and data. The term “medicinal” has come to operate as a communication strategy, generating symbolic legitimacy without providing corresponding empirical support [1].

Clinical practice requires that therapeutic claims rest on appropriate methodology rather than emotional appeal. Nevertheless, the popular imagination continues to embrace the idea that using cannabis “for anxiety,” “for pain,” or “for insomnia” is benign, natural, and safe. The review shows that only very specific indications have reasonable evidence—most notably chemotherapy-induced nausea and refractory epilepsies treated with pharmaceutical-grade CBD, the latter being products with rigorously controlled purity. For the remaining popular indications, robust evidence is lacking or the risks outweigh the potential benefits [1].

The literature further demonstrates that most products marketed as “medicinal” fail to meet minimal pharmaceutical standards [1]. Cash et al., for example, show that these products contain THC levels similar to recreational products, without consistent standardization across suppliers. The distinction between “recreational” and “medicinal” markets, therefore, often does not hold from a chemical or pharmacological standpoint—rendering the label “medicinal” essentially rhetorical [2].

The psychiatric risks associated with high-potency products intensify this concern. Studies such as that of Petrilli et al. document the direct relationship between higher THC concentration and increased psychosis, anxiety, depression, and dependence [3]. A meta-analysis shows that 29% of individuals using cannabis for “medical” reasons meet criteria for substance use disorder—an index wholly incompatible with the notion of safety suggested by the label [3].

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Added to this are labeling problems. Bonn-Miller et al. demonstrated significant under and overdosing in CBD-containing products. The absence of pharmaceutical precision—a basic requirement for any medication—prevents safe dosing, compromises clinical trials, and increases toxicological risks [4].

Another critical aspect is contamination. Gagnon et al. identified elevated levels of pesticides, heavy metals, and solvents in non-pharmaceutical products—conditions incompatible with good manufacturing practices and completely removed from the notion of a “natural and safe product” [5].

From an epidemiological standpoint, the clinical use of cannabis is rising in an environment where the medical profession itself reports insufficient preparation: only 33% state that they have adequate knowledge of the topic, and 86% report needing additional training to advise or prescribe. In other words, the use of the term “medical cannabis” has advanced far more rapidly than the scientific knowledge surrounding it, creating fertile ground for decisions based on opinion rather than evidence [1].

International scientific societies reinforce caution. The American Psychiatric Association explicitly recommends *not* using cannabis to treat any psychiatric disorder, citing the risk of precipitating psychosis, worsening depression, and increasing suicidality [6]. The National Academies of Sciences, Engineering, and Medicine conclude that most medical indications lack definitive evidence, while respiratory, cardiovascular, and psychiatric risks remain underestimated [7].

Taken together, these data reveal that “medical cannabis” is, in most cases, a discursive construction that generates empathy while artificially reducing perceived risk. It is a narrative effective from a communication standpoint but fragile as a scientific category.

For medicine, the designation “medicinal” can only apply to products subjected to the same criteria of control, purity, stability, and efficacy required of any other medication. Using the term indiscriminately compromises scientific coherence and weakens patient protection.

Science is not opinion. It is a disciplined process that exists precisely to restrain the allure of simple solutions to complex problems. The cannabis debate must be broad, but it must be conducted on the basis of evidence—not

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narrative. Defending this principle is not merely a technical imperative but an ethical requirement of contemporary medical practice.

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The authors declare no conflicts of interest.

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