MEDICAL CANNABIS FOR CHRONIC PAIN: A SYSTEMATIC REVIEW OF EFFECTIVENESS

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BACKGROUND

Chronic pain significantly impacts patients' **quality of life** and places a burden on healthcare systems globally, affecting approximately one in five adults in Malta[1]. Despite the availability of conventional treatments, many individuals continue to experience **inadequate pain relief**, which has led to increased interest in alternative therapies such as **medical cannabis**.

AIM & OBJECTIVES

Aim: To evaluate the **effectiveness** of medical cannabis for chronic pain through an analysis of **real-world evidence** and **patient-reported outcomes**.

Objectives:

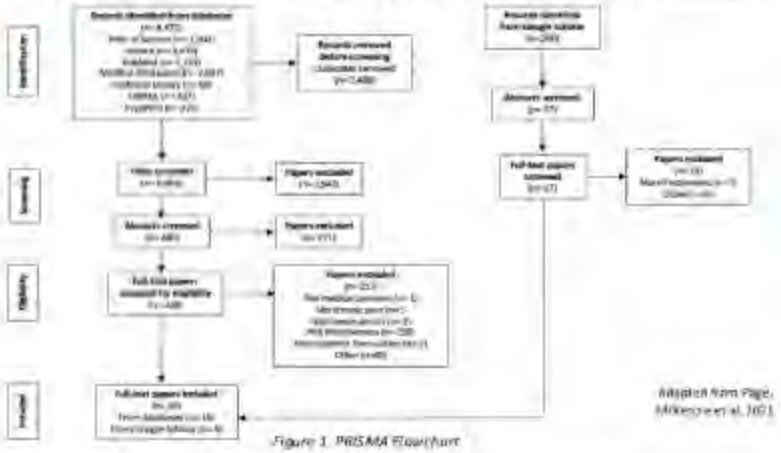
- To assess the **methodological quality** of published evidence.
- To evaluate the **effectiveness** of available medical cannabis **formulations**.
- To identify **research gaps**.

METHODOLOGY

- The **systematic review protocol** was registered on **PROSPERO** (CRD 42023447171)[2].
- **Databases** searched included MEDLINE, CINAHL, Cochrane Library, Web of Science, Scopus, PsycINFO, PubMed, and Google Scholar, using terms related to **medical cannabis**, **chronic pain**, and **effectiveness**.
- Studies were screened by **2 independent reviewers**.
- **Methodological quality** was assessed using **Critical Appraisal Skills Programme** checklists[3].

RESULTS

PRISMA Flowchart



Adapted from Page, Moher et al. 2021

Figure 1. PRISMA Flowchart

Table highlighting the main characteristics of included studies

Publication years and countries	2015 to 2023, mostly Europe (38% of retained studies)
Treatment duration	8 weeks to 1 year
Participants	Middle-aged to older, mostly females
Chronic pain types	Chronic cancer pain and chronic non-cancer pain
Medical cannabis formulations	Oromucosal sprays, oral capsules, sublingual oils, gums, lozenges, decoction, and inhaled products

Key findings: Most studies showed statistically significant pain reduction with medical cannabis across different pain types, with the ***exception*** of the following.

- **Neuropathic pain:** CBD, THC, or combined oral capsules showed ***no benefit*** compared to placebo.
- **Fibromyalgia:** One study demonstrated a 12-month improvement while another reported ***no change***.

Quality assessment: Most of the included studies were of **medium to high quality**.

CONCLUSION

- Evidence is **inconclusive** due to **variability** in **formulations** and **pain populations** analysed.
- Some studies indicate **potential benefits of balanced THC/CBD**, as an **oromucosal spray**, for **chronic cancer pain** and as an **adjunct for neuropathic pain**.
- However, **further high-quality research** is required to draw firm conclusions.

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References

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