

# The Use of Cannabis in the Treatment of Dizziness: A Call For Research and Scoping Review

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## BACKGROUND

- Dizziness is one of the most common complaints in medicine and impacts all ages, with a prevalence of 48.3%.
- Treatment for dizziness, includes anti-emetics, anti-histamines, anticholinergics, antidopaminergic, calcium channel blockers, and benzodiazepines, which act as vestibular suppressants. However, prolonged use of these can have significant side effect profiles.
- Cannabis plays a role in treating chronic pain and treatment-resistant epilepsy, and can have anti-anxiolytic effects.
- Cannabidiol (CBD) has been shown to reduce the occurrence for dizziness, and symptoms associated with dizziness, such as nausea, vomiting, anxiety, and insomnia.
- Cannabis therefore could represent an attractive alternative or adjunctive therapy in the treatment of dizziness

## OBJECTIVE

- To assess the **evidence for the use of cannabis** in the management of **dizziness**.
- To identify and **analyze knowledge gaps**, and as well provide the **foundation** for future systematic reviews, observational and experimental studies on cannabis as a therapy for dizziness.

## METHOD

### Search Strategy

Developed by hospital librarian –

### Inclusion criteria included:

- adults (>18 years old) experiencing dizziness
- cannabis explored as a form of treatment,
- experimental and quasi-experimental study designs
- analytical observational studies

**Outcome:** change in degree of dizziness as an outcome were included.

### Screening

Title and abstract screening by two independent reviewers.

## RESULTS

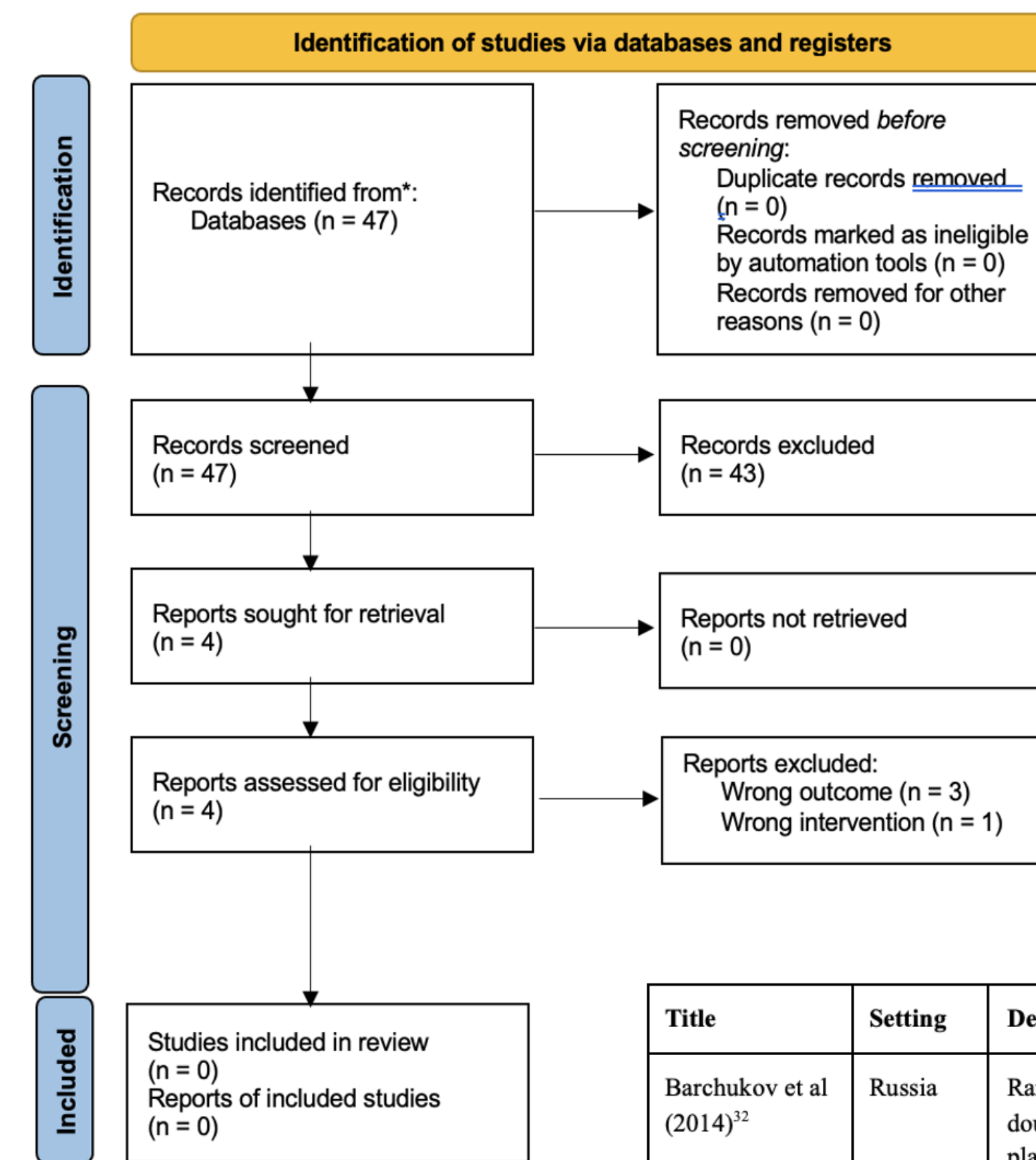


Figure 1. PRISMA Flow Diagram

- This is an **empty review** as there were no included studies which met the predefined eligibility criteria.
- No data analysis or risk of bias assessment was performed.
- Empty reviews should summarize the studies that were included at full text screening as they may provide relevant information to the review question, even if they did not meet the review inclusion criteria.
- Four studies were excluded at full text screening
- One study provided evidence that modulation of cannabis receptors may play a role in alleviating symptoms of vertigo; however, they did not use medical cannabis as their exposure.

Title	Setting	Design	Population	Exposure	Outcome	Result	Reason for exclusion
Barchukov et al (2014) <sup>22</sup>	Russia	Randomized, double-blind, placebo-control, parallel group clinical trial	30 patients with a low threshold for vertigo	Antibody-based preparations	Hemodynamics (blood pressure, heart rate) ICCA time Galvanic skin response	Modification of activity of vestibular receptors by release-active preparations can contribute to an increase in ICCA tolerance time	Wrong exposure
Aviram et al (2020) <sup>29</sup>	Israel	Observational prospective study	1045 non-cancer chronic pain patients	Medical cannabis	Weekly average pain intensity	Average pain intensity declined from baseline Decrease in opioid usage Reported adverse effects were common but mostly non-serious. Medical cannabis resulted in normal to long sleep duration, lower body mass index and lower depression	Wrong outcome
Bar-Lev Schleider et al (2018) <sup>30</sup>	Israel	Observational prospective study	2970 cancer patients	Medical cannabis	Palliation of cancer-associated symptoms	Cannabis as a palliative treatment for cancer patients seems to be well tolerated, effective and safe option to help patients cope with the malignancy related symptoms.	Wrong outcome
Bar-Sela et al (2013) <sup>31</sup>	Israel	Observational prospective study	211 cancer patients	Medical cannabis	Palliation of cancer-associated symptoms	All cancer related symptoms, including nausea, vomiting, mood disorders, fatigue, weight loss, sleep disorders, and pain, had significant improvement with medical cannabis use.	Wrong outcome

Table 1. Characteristics of studies excluded at full-text

## DISCUSSION



No studies were identified in this review which evaluated the use of cannabis to alleviate dizziness, thus we report an empty review.

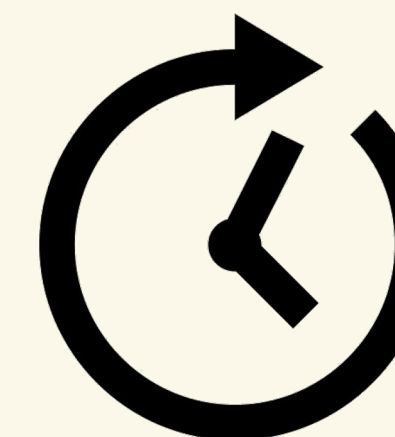


Considering the central action of cannabis, combined with its anticonvulsant, anti-inflammatory, and antiemetic properties, and the relationship between the endocannabinoid and the vestibular system, cannabis may have promising potential to alleviate symptoms of dizziness.



Dizziness was a reported side effect in various clinical trials investigating the therapeutic profile of cannabis. Dizziness from cannabis use is thought to result from postural hypotension, and tolerance to this develops rapidly after 1-2 days of repeated exposure

### Future studies:



- assess consumption patterns and patient attitudes towards cannabis use amongst populations experiencing dizziness
- Controlled trials assessing the therapeutic benefit of cannabis for dizziness should be conducted.