

The Tinker Toy Method of Research

Learning Resource Center

EBSCO Advanced Search

In the "Choose Your Search Engine" PowerPoint, we ran a search in EBSCO using the "Basic Search." The results were 1276 articles.

Let's compare that with using the EBSCO "Advanced Search." EBSCO doesn't use MeSH terms. To effectively search EBSCO, think of as many synonyms as possible to express each concept. EBSCO is very literal. Unlike Google, EBSCO will only search for the terms you provide. It will not apply synonyms.

Search Terms--Brainstorming

Medical Marijuana

How many ways can that be said?

Research is a guessing game: What words might an author use to express the same concept? There are a lot of slang terms for Marijuana that won't show up in a medical study. Use scientific terms such as:

- Cannabis
- CBD Oil
- Cannabidiol
- Phytocannabinoid
- Cannabidiolum

Search Terms--Brainstorming

Treatment

How many ways can that be said?

- Therapy
- Therapeutic
- Intervention
- Management
- Remedial
- Remedy

Search Terms--Brainstorming

Anxiety Disorder

How many ways can that be said?

- Anxiety
- "Social Anxiety"
- Agoraphobia
- Agoraphobic
- "Panic Attack"

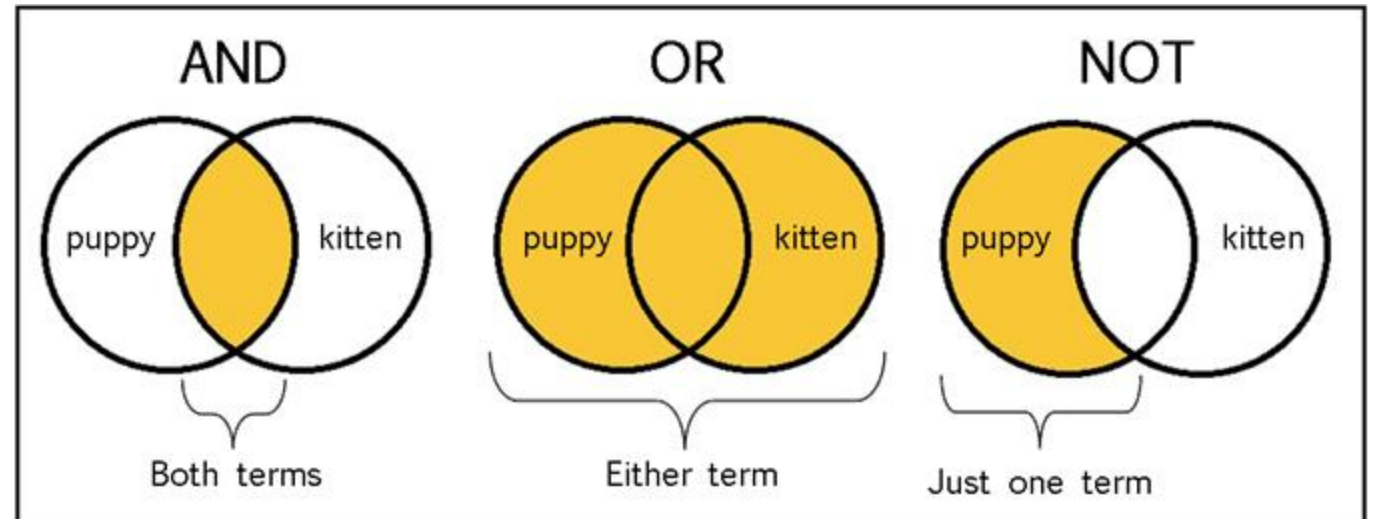
Notice the quotation marks. Use them carefully. They will significantly limit your search results. However, you wouldn't want to use the word "Social" without "Anxiety."

AND and OR

You can skip this slide if you understand how to use AND and OR effectively. If you need a review, here it is.

When should you use AND, and when should you use OR? (We will cover NOT another time.) In short:

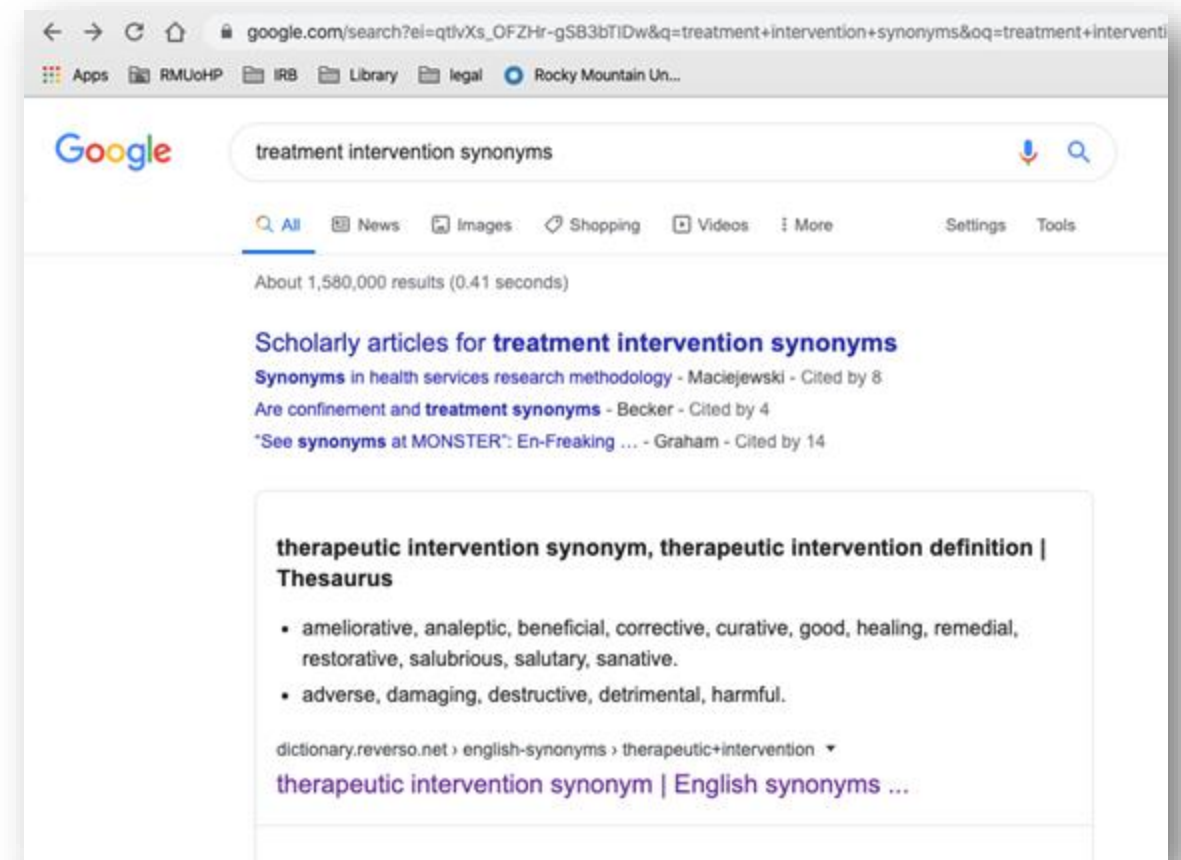
- OR expands your search.
- AND limits your search.



Search Terms--Brainstorming

Is there a limit to how many terms you can include in your search? **No.**
It can be a paragraph, and it will be if you are doing a systematic review.

You are the subject matter expert.
You know the terminology of your discipline. However, if you are struggling, Google can be helpful.
Google can suggest synonyms for your terms.



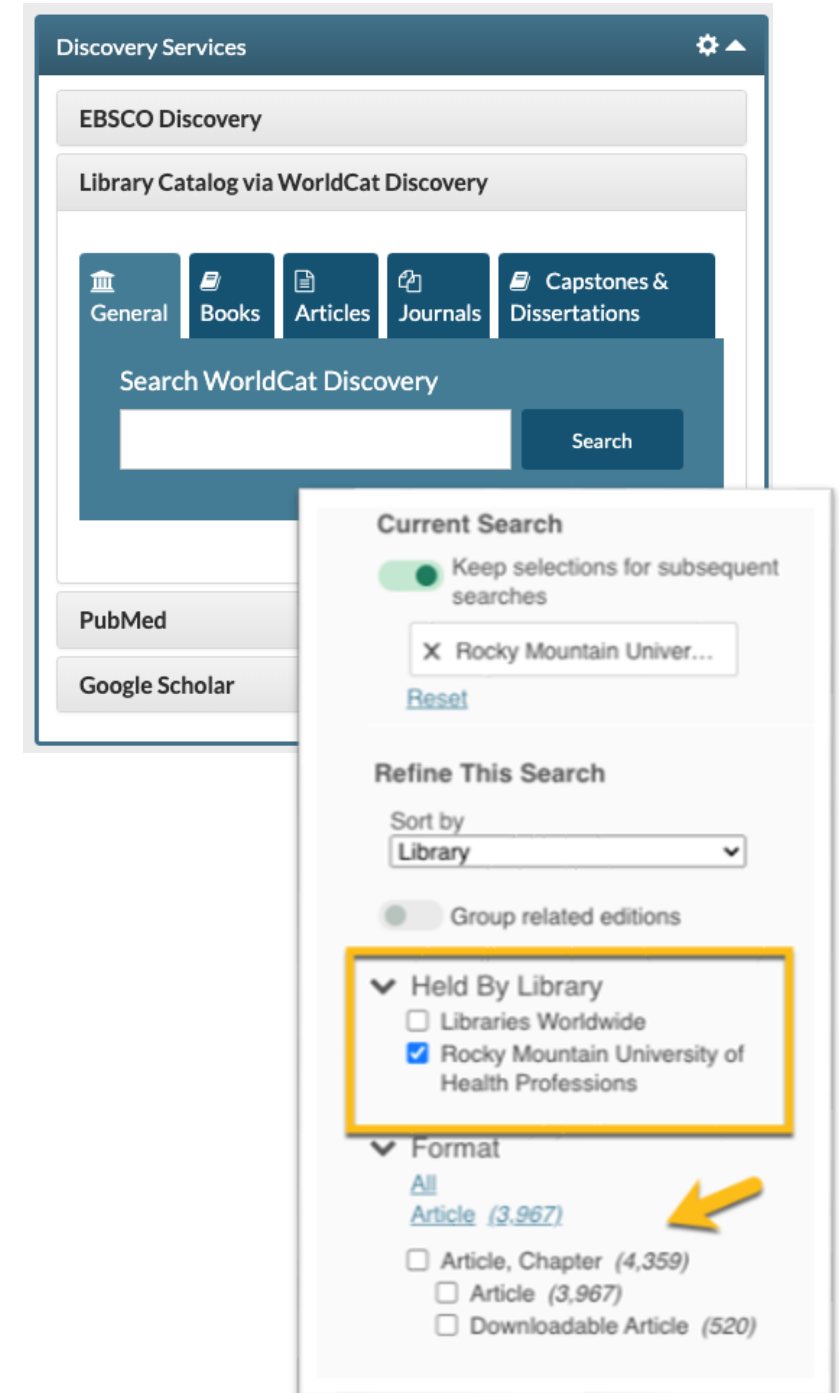
Discovery Services

A Discovery Service searches multiple databases simultaneously. RMU subscribes to two Discovery Services: **WorldCat Discovery** and **EBSCO Discovery**.

WorldCat searches our entire electronic holdings and includes our print collection. However, the WorldCat search engine is **not** very robust. You can limit your search to our library or expand it to "Libraries Worldwide."

EBSCO Discovery searches most of our collection except Embase and ProQuest databases. It is a better search engine than WorldCat, allowing you to combine searches and provide suggested terms.

You can use either, but there is a trade-off.

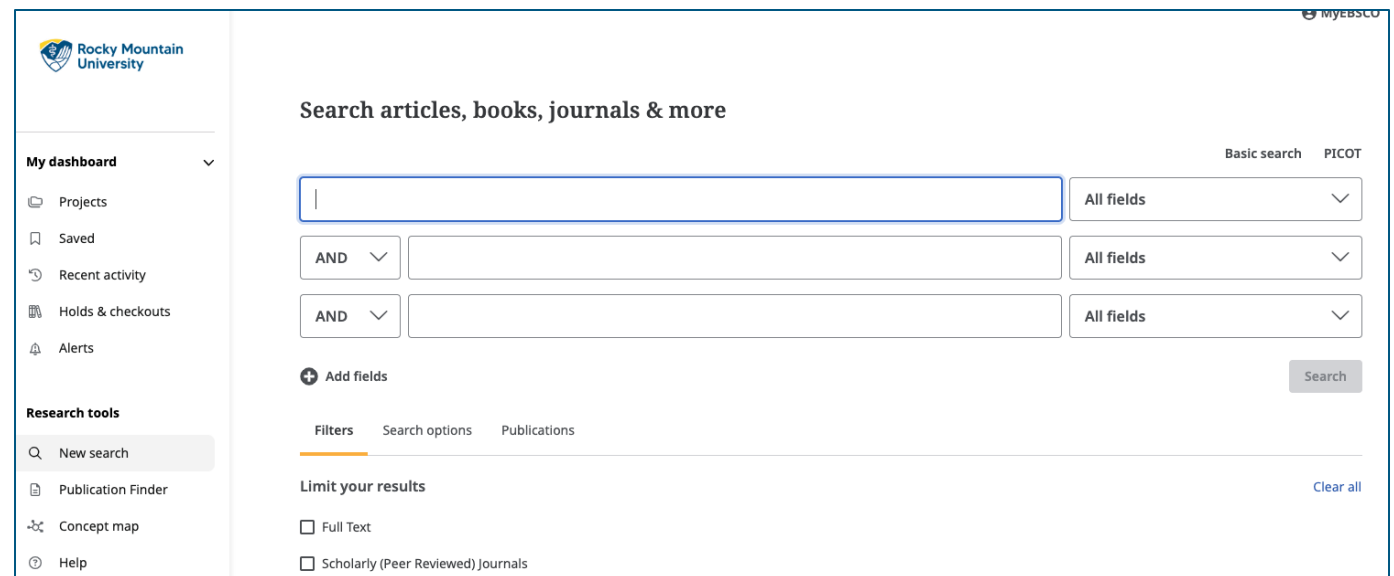


EBSCO



Going back to the Marijuana research question, let's run the search in EBSCO.

You can type your search in the EBSCO search box or click on the logo to run an "Advanced Search."



EBSCO

"Advanced Search" allows you to add multiple search concepts and limit the search terms to specific fields, such as author, title, abstract, etc.

Search articles, books, journals & more

AND ▾

AND ▾

⊕ Add fields

Filters

Search options

Publications

Limit your results

☐ Full Text

Basic searchPICOT

All fields ▾

All fields

All Text - TX

Author - AU

Title - TI

Subject Terms - SU

Journal Title/Source - SO

Formulating a Search

Use OR to connect synonyms -- Use AND to connect Concepts

Here is what our Medical Marijuana search would look like:

Marijuana **or** cannabis **or** CBD **or** cannabidiol **or** phytocannabinoid **or** cannabidiolum

AND

treatment **or** therapy **or** therapeutic **or** intervention **or** management **or** remedial **or** remedy

AND

anxiety **or** "social anxiety" **or** agoraphobia **or** agoraphobic **or** "panic attack"

Back to EBSCO “Advanced Search”

You could paste all three concepts in the search boxes and then run. Instead, we recommend running each "concept" as a separate search and combining them later.

What is the benefit of running three separate searches rather than searching them all simultaneously?

Search articles, books, journals & more

Basic search PICOT

All fields ▾

AND ▾

All fields ▾

AND ▾

All fields ▾

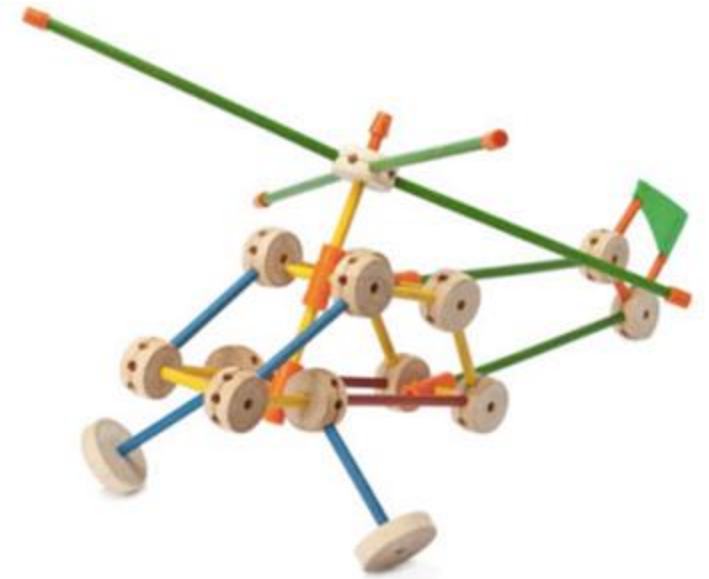
+ Add fields

Search

Benefit of Running the Searches Separately

You can tell how well that concept is formulated by running each "concept" separately. If all "concepts" are run altogether, poor results will be difficult to identify and, therefore, difficult to revise the search. Each "concept" can be revised individually as needed and run again rather than retyping the entire search. The "concepts" can be combined in different combinations. It helps you create a better search overall.

I call this the Tinker Toy method of research, where you create different search segments and connectors and then play with them to find the best results.



Benefit of Running the Searches Separately

Let's apply this to the marijuana search. Results? 509,282. Is that too many? It's too soon to tell. Let's run the next concept.

All filters (0)

Full Text

Scholarly (Peer Reviewed) Journals


All time


Source type

Results: 509,282

Show: 10

Relevance





RESEARCH STARTER

***Cannabis* (genus *Cannabis*).**


Cannabis is a genus of plant that includes the species *Cannabis* sativa, *Cannabis* indica, and *Cannabis* ruderalis. *Cannabis* plants can grow as high as eighteen feet. They have green, thin stems, and the leaves branch off into five to seven "fingers." The plant's small green flowers grow in clusters. The dried flowers and leaves of the plant are smoked as the drug *marijuana*, which is also known as po...

Salem Press Encyclopedia of Science, 2024

Other topics: [Cannabidiol \(CBD\)](#), [Marijuana](#), [Legalization of Marijuana: Overview](#).

[Read more](#) →

1





Reference

For adults with opioid-refractory cancer pain, what are the benefits and harms of nabiximols (tetrahydrocannabinol (THC) and *cannabidiol* (CBD))?

By: Tort, Sera; Husein-ElAhmed, Husein • In: Cochrane Clinical Answers, 20230823 • [Cochrane Clinical Answers](#)

For adults with opioid-refractory cancer pain, moderate-certainty evidence shows that nabiximols (THC and *CBD* applied in the oral mucosa at different doses and frequencies) probably result in little to no clinically relevant difference in patient global im... [Show more](#)



Benefit of Running the Searches Separately

The treatment "concept" results in over 76 million. This "concept" is very broad, but once it is combined with the other "concepts," it can be manageable.

All filters (0)

Full Text

Scholarly (Peer Reviewed) Journals

All time


Source type


☐

Results: 76,472,366

Show: 10

Relevance





RESEARCH STARTER

Management: Research Starters Topic.

Management is work or act of directing and controlling a group of people within an organization for the purpose of accomplishing shared goals or objectives. There are numerous Research Starter articles related to this topic. The list below includes the most relevant Research Starter items.


Management: Research Starters Topic, 2021

Other topics: [Therapy: Research Starters Topic.](#), [Treatment methods and research for addictions.](#), [Intervention.](#)

[Read more →](#)

☐

1





Peer reviewed | Academic Journal

Pain Neuroscience Education in management of non-traumatic neck pain: a scoping review.

By: Opara, Manca; Kozinc, Žiga • In: European Journal of Physiotherapy, Dec2024 • SPORTDiscus with Full Text


Background: Over the past two decades, biopsychosocial models of education have emerged for the **treatment** of various conditions, including neck pain (NP). One increasingly popular biopsychosocial education method is Pain Neuroscience Education (P... [Show more](#)

Subjects: [PHYSICAL therapy](#); [PAIN measurement](#); [PHOBIAS](#); [EXERCISE therapy](#); [+13 more](#)



Benefit of Running the Searches Separately

The anxiety "concept" has almost three million results. To combine searches, click on "Recent activity."



My dashboard ▾

- Projects
- Saved
- Recent activity
- Holds & checkouts
- Alerts


Research tools


- New search
- Publication Finder
- Concept map
- Help

All filters (0) Full Text Scholarly (Peer Reviewed) Journals All time Source type

☐ ▾ Results: 2,842,131

Show: 10 Relevance





RESEARCH STARTER


Anxiety.

Anxiety is a subjective state of fear, apprehension, or tension. In the face of a naturally fearful, stressful, or threatening situation, **anxiety** is a normal and understandable reaction. When **anxiety** occurs without obvious provocation or is excessive, however, **anxiety** may be said to be abnormal or pathological (existing in a disease state). Normal **anxiety** is useful because it provides an alerting signal...

Magill's Medical Guide (Online Edition), 2023

Other topics: [Agoraphobia and panic disorders.](#) , [Panic attacks.](#) , [Anxiety Disorders: Theories.](#)

[Read more →](#)

☐ 1 

Journal

Agoraphobic Cognitions Questionnaire--Modified.

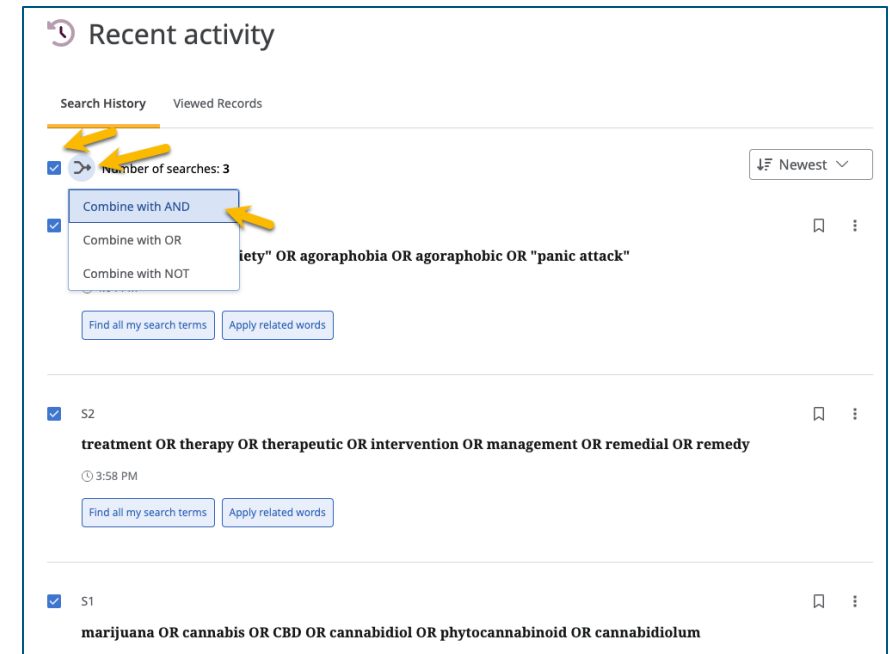
By: Hoffart, Asle; Friis, Svein; Strand, Jardar; [+1 more](#) • In: Journal of Psychopathology and Behavioral Assessment, 1994 • [Health and Psychosocial Instruments](#)

Agoraphobic Cognitions Questionnaire--Modified (ACQ-Mod) "consists of the 14 items..of the **Agoraphobia Cognitions Questionnaire** (ACQ; Chambless, 1984), with the addition of three items..from the **Agoraphobia Cognitions Scale** (Hoffart, Friis, & Martins... [Show more](#)

Combining Searches

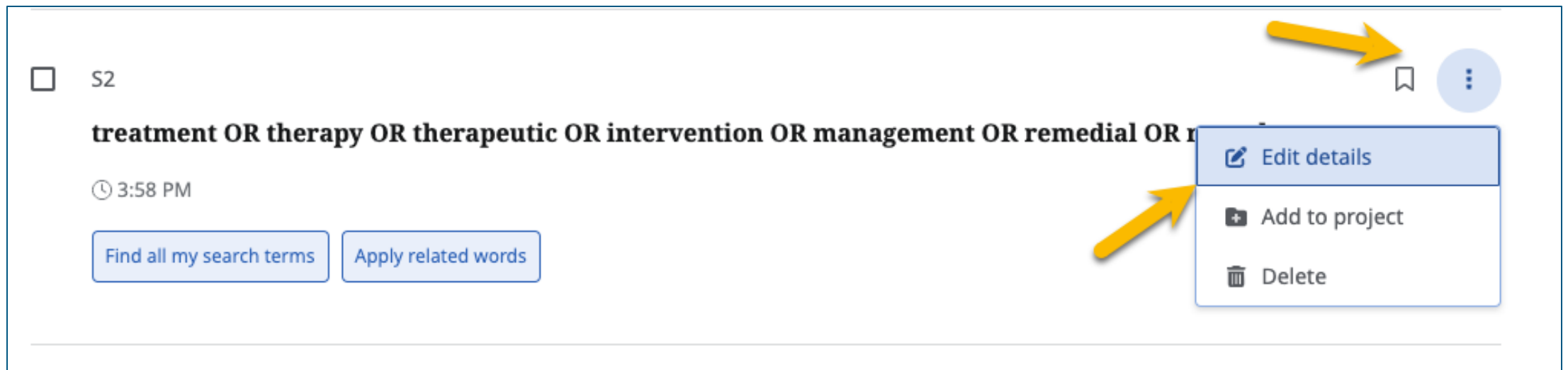
Look under "Recent Activity" to see the recent searches and the results. Combine "concepts" by clicking on the boxes to the left of each search, clicking on the combine symbol, and clicking "Combine with AND."

First, delete the current search from the search box. The previous searches were run using OR, which makes your search broader. AND will narrow your search to just articles with all three concepts. Click on "Search" (the magnifying glass).



Search History and Combining Searches

This combined search gives 13,987 results. Far too many. What to do? Look at the searches. "Management," "remedial," and "remedy" may be too general to be helpful. Go back to "Recent Activity." Click on the three dots to the right of the search to revise the search and then recombine with the other “concepts.”



The screenshot shows a search interface with a search history item. The item is labeled "S2" and contains the search query: **treatment OR therapy OR therapeutic OR intervention OR management OR remedial OR r**. Below the query, there is a timestamp "3:58 PM" and two buttons: "Find all my search terms" and "Apply related words". To the right of the search query, there is a bookmark icon and a three-dot menu icon. A yellow arrow points to the three-dot menu icon, and another yellow arrow points to the "Edit details" option in the dropdown menu that appears. The dropdown menu also contains "Add to project" and "Delete" options.

☐ S2

treatment OR therapy OR therapeutic OR intervention OR management OR remedial OR r

🕒 3:58 PM

[Find all my search terms](#) [Apply related words](#)


[🔖](#) [⋮](#)

- [✎ Edit details](#)
- [➕ Add to project](#)
- [🗑 Delete](#)

Looking at Results

Some of the results look promising. Many of the results focus on "cancer patients." You can use "Combine with NOT" and "cancer" to limit your search.

☐ 1




Peer reviewed | Academic Journal

[Cannabis-Based Phytocannabinoids: Overview, Mechanism of Action, Therapeutic Application, Production, and Affecting Environmental Factors.](#)

By: Jurga, Marta; Jurga, Anna; Jurga, Kacper; [+3 more](#) • In: International Journal of Molecular Sciences, Oct2024 • Academic Search Index

This review provides an overview of *cannabis*-based *phytocannabinoids*, focusing on their mechanisms of action, *therapeutic* applications, and production processes, along with the environmental factors that affect their quality and efficacy. *Phytoc...* [Show more](#)

Subjects: CANNABINOIDS; MEDICAL *marijuana*; NEURODEGENERATION; INFLORESCENCES; [+3 more](#)

Access options 

☐ 2





Peer reviewed | Academic Journal

[Does medicinal cannabis affect depression, anxiety, and stress in people with cancer? A systematic review and meta-analysis of intervention studies](#)

By: Crichton, Megan; Dissanayaka, Thusharika; Marx, Wolfgang; [+6 more](#) • In: Maturitas, June 2024 • ScienceDirect

Highlights •There is insufficient evidence to determine whether medicinal *cannabis* might have a role in supporting the mental health of people with cancer. •Medicinal *cannabis* might improve and maintain appetite. •High-dose tetrahydrocannabinol (THC) ... [Show more](#)


Subjects: *Cannabis*; Medical *marijuana*; Depression; *Anxiety*; [+2 more](#)

  Number of searches: 6

☐

Combine with AND

Combine with OR

Combine with NOT 

Indexing and Abstract

Click on the title of the article. What you see depends on the publisher. Some publishers provide extensive information and may offer some additional search terms.

Keywords

[Minor cannabinoids](#)
[Psychiatric disorders](#)
[Cannabis](#)
[Mental health](#)
[Phytocannabinoids](#)
[Systematic review](#)

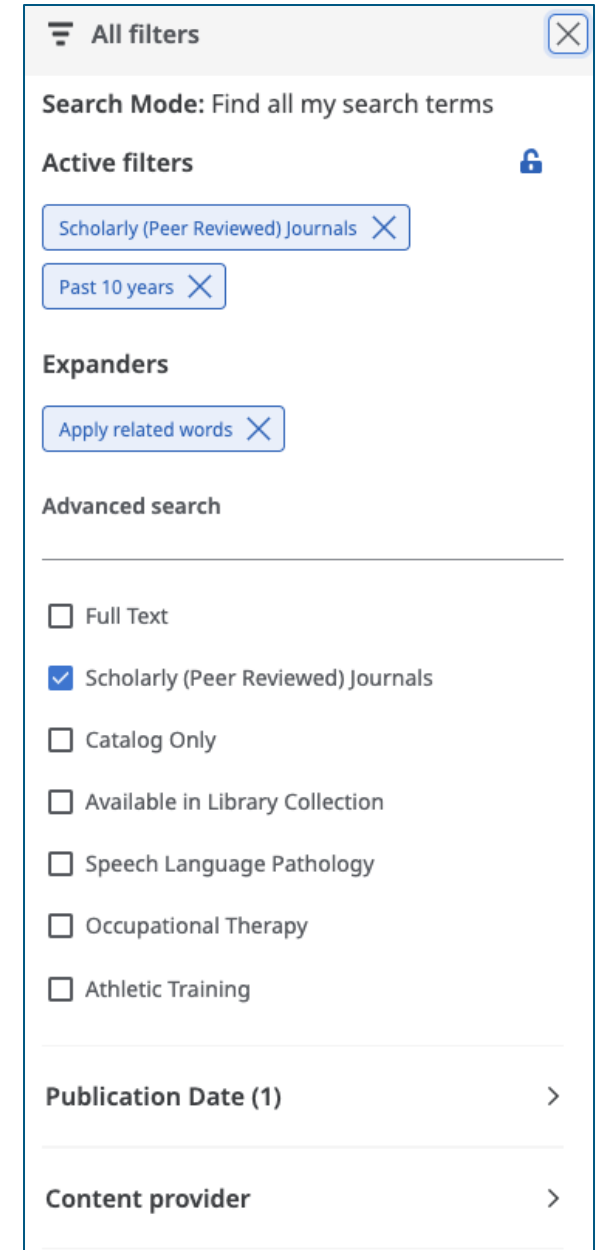
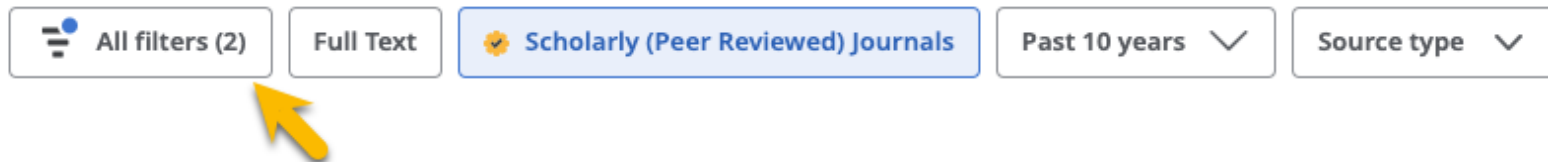
Abstract

Interest in cannabinoids' therapeutic potential in mental health is growing, supported by evidence of the involvement of the endocannabinoid system in psychiatric disorders such as anxiety, depression, and addiction. While the major cannabinoids cannabidiol (CBD) and Δ^9 -tetrahydrocannabinol (Δ^9 -THC) have been more extensively researched, approximately 120 minor cannabinoids from the cannabis plant have been identified. Although some displayed promising pharmacological profiles, research on their application for psychiatric disorders is fragmented. This systematic review evaluates, for the first time, both preclinical and clinical studies exploring minor cannabinoids' therapeutic potential in psychiatric disorders.²² preclinical studies and one clinical study were included, investigating various minor cannabinoids in substance use disorders, anxiety disorders, depressive disorders, trauma and stressor-related disorders, psychotic disorders, neurodevelopmental disorders, and eating disorders. Despite the heterogeneous results and the moderate to high risk of bias in several articles, certain compounds demonstrate promise for further investigation. Δ^8 -tetrahydrocannabidivarin (Δ^8 -THCV) exhibited potential for nicotine addiction; Δ^9 -tetrahydrocannabidivarin (Δ^9 -THCV) for psychotic-like symptoms; cannabidiolic acid methyl ester (CBDA-ME) alleviated anxiety and depression-like symptoms, and cannabidivarin (CBDV) autism spectrum disorder-like symptoms.

Filters and Limiters

Above the results are standard filters, such as "Peer Reviewed" and limiting by publication date. Click on "All filters" to see a complete list. Scroll down to see more options.

If you need something immediately, you can limit it to "Full Text," but if you are doing a literature review, don't limit it to "Full Text." We can get any article you want through Interlibrary Loan (ILL).



Limiting Terms to the Abstract

You can further limit the search by requiring all search terms in the abstract. This limiter can help your search be more precise.

Search articles, books, journals & more

Basic search

PICOT

AND ▼

AND ▼

⊕ Add fields

Filters

Search options

Publications

All fields

Title - TI

Subject Terms - SU

Journal Title/Source - SO

Abstract - AB

ISSN - IS

ISBN - IB



Further Limits

Even limited by date and "Peer Reviewed," there are still over 8,000 results. The solution? Add additional search concepts. Be more specific.

Search History



Viewed Records

☐ Number of searches: 6

☐ S6

S3 AND S2 AND S1

🕒 4:34 PM



Scholarly (Peer Reviewed) Journals

Past 10 years

Find all my search terms

Apply related words

Research: Summary

Takeaways:

- Break your research question into basic concepts
- Brainstorm for synonyms
- Use the “Tinker Toy” method
- Contact your librarians for help

click here



Next Steps

More PowerPoint

- Finding Full Text/Requesting Interlibrary Loan
- More research tools:
 - Embase
 - ProQuest



Rocky Mountain University of Health Professions

1800 S. Novell Place, Provo, Utah 84606 | 801.375.5125 | rm.edu