Cómo hacer una revisión sistemática paso a paso

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Objetivos

- Identificar diferentes fuentes y opciones de búsqueda.
- Generar búsquedas estructuradas para lograr un resultado.
- Aplicar operadores boléanos, truncamientos y ecuaciones de búsqueda.
- Seguir un protocolo de revisión sistemática.
- Manejar la herramienta CADIMA para revisiones sistemáticas.

Revisión Sistemática

Una **revisión sistemática** es un método de investigación que consiste en **identificar, evaluar y sintetizar toda la evidencia científica disponible sobre una pregunta específica**, siguiendo un proceso estructurado y reproducible.

Características de las revisiones sistemáticas

- Reproducibilidad
- Transparencia
- Metodología estructurada

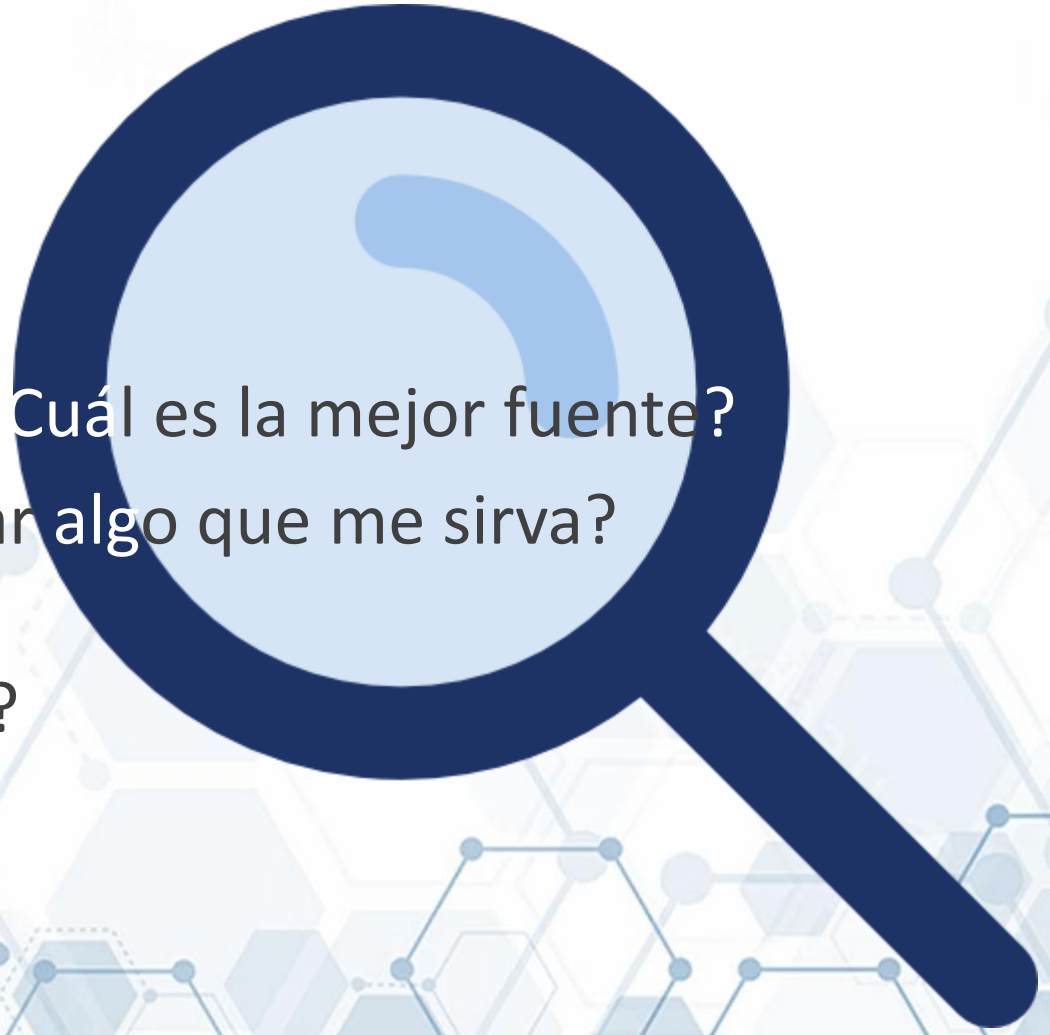
Paso 1: Definir la pregunta de investigación

P: población
I: intervención / exposición
C: comparación
O: resultados (outcomes)

¿Cuál es el efecto de la actividad física en la reducción de síntomas de ansiedad en estudiantes universitarios?

Avanzar en el proceso

1. ¿Qué necesito buscar?
2. ¿Qué sé del tema?
3. ¿Dónde puedo buscar información? ¿Cuál es la mejor fuente?
4. ¿Ya tengo mi estrategia para encontrar algo que me sirva? ¿Cómo le pregunto al buscador?
5. ¿Qué bases y cuántas bases consulto?



Paso 2: Definir la Ecuación de Búsqueda

Pensar en 3 palabras clave y de cada palabra buscar sinónimos y palabras relacionadas.

¿Dónde buscamos el lenguaje controlado?

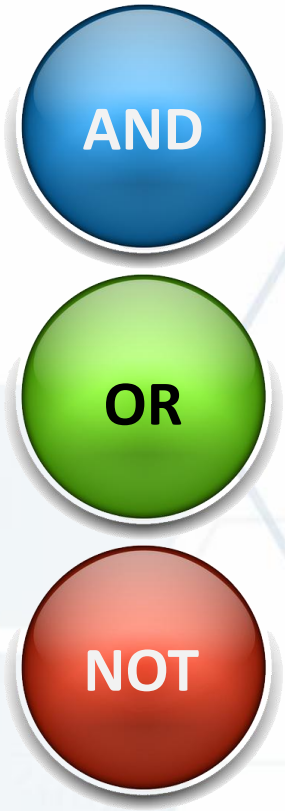
- Tesauro de la UNESCO: es multidisciplinar.
- Palabras clave en bases de datos o artículos relacionados: Scopus.
- Estrategia de bola de nieve: bajo 10 artículos y hago seguimiento a las referencias de esos 10 artículos.

Uchuva

Physalis Peruviana

Uchuva OR “Physalis peruviana”

Operadores Boleanos



AND = Conector

OR = Sinónimos

NOT = Para excluir palabras

Operadores de Truncamiento

* Se utiliza al inicio o final de una raíz.

Ejemplo: Bibliot* biblioteca, biblioteconomía, bibliotecario, bibliotecaria, bibliotecarios… Child* children, child, childhood.

? Busca documentos que incluyan el término, pero reemplazado por cualquier caracter.

Ejemplo: Wom?n: woman, women.

“” Palabras compuestas, se deben poner entre comillas para que la base las entienda como un solo término.

Ejemplo: “Equipo de Trabajo”

Ecuación de búsqueda

¿Cuál es el efecto de la actividad física en la reducción de síntomas de ansiedad en estudiantes universitarios?

(anxiety OR stress) AND (“physical activity” OR exercise) AND (students)

Paso 3: Establecer criterios de inclusión y exclusión

Inclusión:

- Formato: Artículos revisados por pares
- Idioma
- Temporalidad
- Área temática

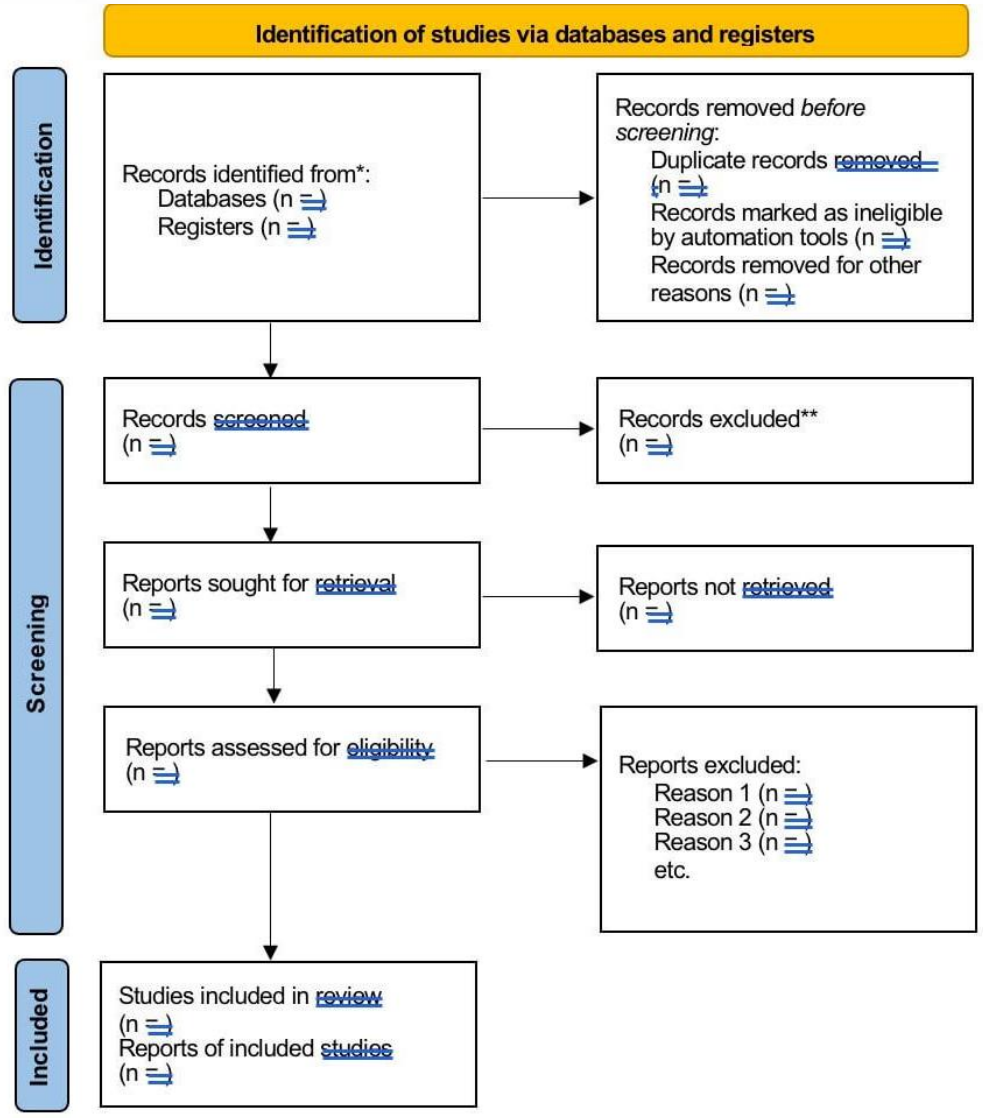
Exclusión:

- Estudios con muestras no relevantes
- Artículos sin texto completo

Paso 4: Proceso de selección de estudios

Fases:

- Identificación
- Eliminación de duplicados
- Cribado por título y resumen
- Revisión de texto completo
- Inclusión final



Protocolo PRISMA 2020

1. Título
2. Resumen
3. Introducción
4. Métodos
5. Resultados
6. Discusión
7. Otra información

https://www.prisma-statement.org/prisma-2020

Section and Topic	Item #	Checklist item	Location where item is reported
TITLE			
Title	1	Identify the report as a systematic review.	
ABSTRACT			
Abstract	2	See the PRISMA 2020 for Abstracts checklist.	
INTRODUCTION			
Rationale	3	Describe the rationale for the review in the context of existing knowledge.	
Objectives	4	Provide an explicit statement of the objective(s) or question(s) the review addresses.	
METHODS			
Eligibility criteria	5	Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses.	
Information sources	6	Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted.	
Search strategy	7	Present the full search strategies for all databases, registers and websites, including any filters and limits used.	
Selection process	8	Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process.	
Data collection process	9	Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process.	
Data items	10a	List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect.	
	10b	List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information.	
Study risk of bias assessment	11	Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process.	
Effect measures	12	Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results.	
Synthesis methods	13a	Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)).	
	13b	Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions.	
	13c	Describe any methods used to tabulate or visually display results of individual studies and syntheses.	
	13d	Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used.	
	13e	Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression).	
	13f	Describe any sensitivity analyses conducted to assess robustness of the synthesized results.	
Reporting bias assessment	14	Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases).	
Certainty assessment	15	Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome.	

Paso 5: Extracción de datos

Información que suele registrarse:

- Autor y año
- País
- Tamaño de la muestra
- Diseño del estudio
- Variables estudiadas
- Resultados principales

Paso 6: Evaluación de la calidad metodológica y riesgo de sesgo

Ejemplos de herramientas:

- CASP (Critical Appraisal Skills Programme)
- MMAT (Mixed Methods Appraisal Tool)
- JBI Critical Appraisal Tools
- AMSTAR

Normalmente esta evaluación se realiza por **al menos dos revisores independientes**, para aumentar la fiabilidad del proceso

Part I: Mixed Methods Appraisal Tool (MMAT), version 2018

Category of study designs	Methodological quality criteria	Responses			
		Yes	No	Can't tell	Comments
Screening questions (for all types)	S1. Are there clear research questions?				
	S2. Do the collected data allow to address the research questions?				
	Further appraisal may not be feasible or appropriate when the answer is 'No' or 'Can't tell' to one or both screening questions.				
1. Qualitative	1.1. Is the qualitative approach appropriate to answer the research question?				
	1.2. Are the qualitative data collection methods adequate to address the research question?				
	1.3. Are the findings adequately derived from the data?				
	1.4. Is the interpretation of results sufficiently substantiated by data?				
	1.5. Is there coherence between qualitative data sources, collection, analysis and interpretation?				
2. Quantitative randomized controlled trials	2.1. Is randomization appropriately performed?				
	2.2. Are the groups comparable at baseline?				
	2.3. Are there complete outcome data?				
	2.4. Are outcome assessors blinded to the intervention provided?				
	2.5 Did the participants adhere to the assigned intervention?				
3. Quantitative non-randomized	3.1. Are the participants representative of the target population?				
	3.2. Are measurements appropriate regarding both the outcome and intervention (or exposure)?				
	3.3. Are there complete outcome data?				
	3.4. Are the confounders accounted for in the design and analysis?				
	3.5. During the study period, is the intervention administered (or exposure occurred) as intended?				
4. Quantitative descriptive	4.1. Is the sampling strategy relevant to address the research question?				
	4.2. Is the sample representative of the target population?				
	4.3. Are the measurements appropriate?				
	4.4. Is the risk of nonresponse bias low?				
	4.5. Is the statistical analysis appropriate to answer the research question?				
5. Mixed methods	5.1. Is there an adequate rationale for using a mixed methods design to address the research question?				
	5.2. Are the different components of the study effectively integrated to answer the research question?				
	5.3. Are the outputs of the integration of qualitative and quantitative components adequately interpreted?				
	5.4. Are divergences and inconsistencies between quantitative and qualitative results adequately addressed?				
	5.5. Do the different components of the study adhere to the quality criteria of each tradition of the methods involved?				

Paso 7: Síntesis de resultados

Síntesis cualitativa

- Descripción y comparación de estudios

Meta-análisis (si los datos lo permiten)

- Combinación estadística de resultados

Proceso de una Revisión Sistemática

1. Definir la Pregunta de Investigación
   PICO
2. Diseño de la Estrategia de Búsqueda
   AND | OR
3. Criterios de Inclusión y Exclusión
4. Selección de Estudios
5. Extracción de Datos
6. Evaluación de Calidad Metodológica
   CASP / MMAT
7. Evaluación de Sesgo de Publicación
8. Síntesis de Resultados
   - Síntesis Cualitativa
   - Meta-Análisis

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Leady V. Fajardo-Castro

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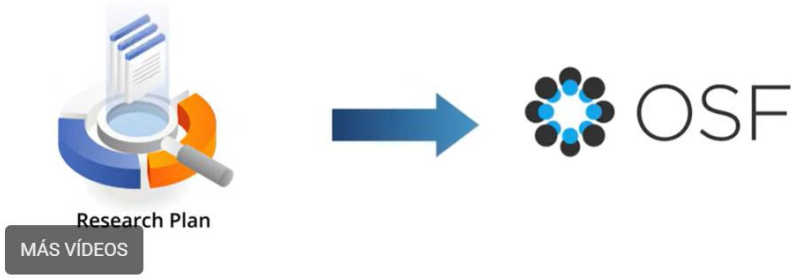

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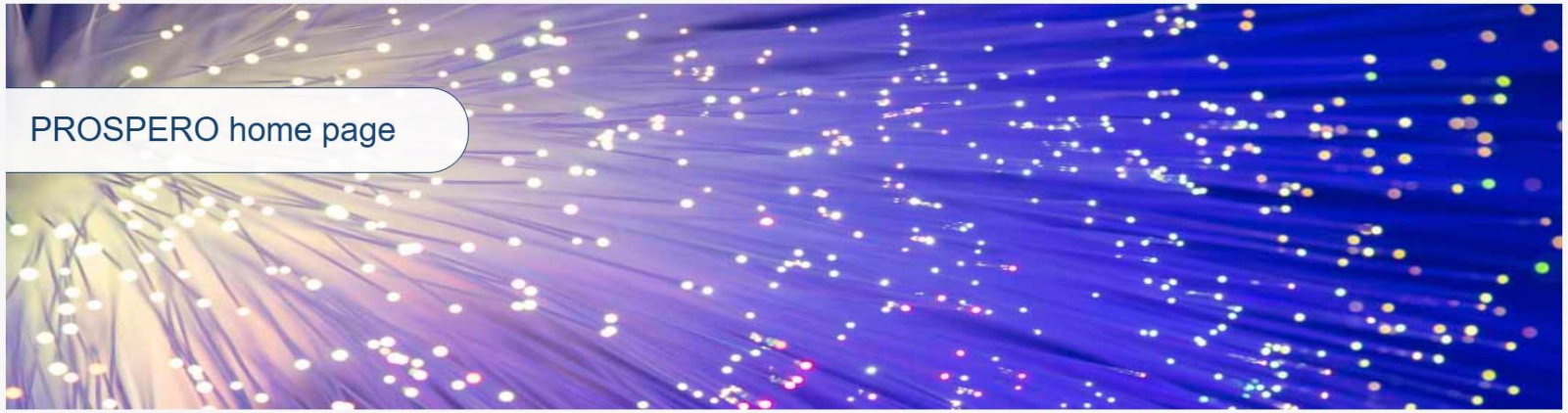
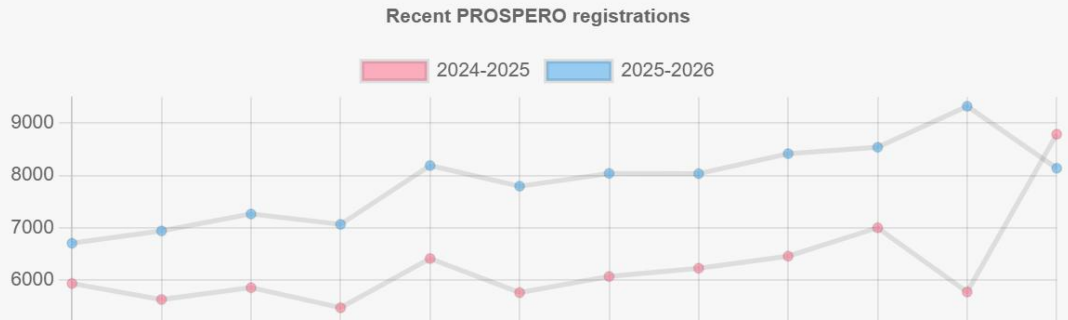


What is PROSPERO?

PROSPERO is an international systematic review registry that aims to promote transparency and open science, reduce reporting bias and help prevent unintended duplication and research waste.

The PROSPERO database currently includes records of over **423000** prospectively registered systematic reviews with health related outcomes, providing easy access to key information about planned, in-progress and completed reviews.

PROSPERO is produced by the Centre for Reviews and Dissemination (CRD) and funded by the National Institute for Health and Care Research (NIHR)



Registering a review

Registering a review is quick and easy and free of charge. You must be logged in to register a review.

Register your review now

News

PROSPERO now searches PubMed for reviews that match registered PROSPERO protocols. Matched registrations are updated automatically and a DOI added to the record. We encourage you to check that your record details are correct and amend if

Por qué emplear CADIMA

- Aumentar la eficiencia y maximizar el rigor metodológico.
- Es una herramienta de Open Access.
- Puede ser empleada por cualquier disciplina científica.
- Respalda todo el proceso de síntesis de la evidencia científica (desde el protocolo hasta presentación de resultados).

Por qué emplear CADIMA

- Facilita documentación exhaustiva del proceso de revisión:
  1. Diagrama de flujo que resume el proceso de selección del estudio, cumpliendo con los estándares PRISMA (formato . docx).
  2. Listas de referencia para cada base de datos (xlsx) y la lista de referencia final después de la eliminación de duplicados (formato .xlsx y RIS).
  3. Resultados de la verificación de consistencia en la selección de estudios en las diferentes etapas (título, resumen y texto completo), incluidas las razones de la exclusión (formato .xlsx).
  4. Resultados de la evaluación crítica (formato .xlsx).
  5. Hoja de extracción de datos completa (formato .xlsx).

Apoyo de CADIMA en el proceso

GRACIAS!

L. Viky Fajardo C.