

NINE – Tips

A worked example of a prevalence systematic review in mental health

Background: The scarcity of methodological guidance for prevalence systematic reviews (PSR) has led to high variability in conduct and report. A ready-to-use collection of tips would be useful for authors.

The aim is to offer tips from a worked example of PSR on mental health problems in European healthcare workers during COVID-19.

Formulate a focused question

1

Use the mnemonic of **CoCoPopS**

- **Co:** Condition.
- **Co:** Context.
- **Pop:** Population.
- **S:** Study.

Define eligibility criteria

2

1. Clear **definition of condition**.
2. Diagnostic **criteria**.
3. Define **subgroups** a priori.
4. Define the **designs to include**: Cross-sectional studies or baseline data in cohorts.
5. Consider the **geographical context** and the **population of interest**.

Define searching criteria and limits

3

- **Prevalence:** There are no validated filters.
- Use **synonyms** or **close terms**.
- **Discard** the concept of prevalence and **combining only population**.
- Condition and population
- Use **validate terms** and **search platforms**.
- Test if the strategy identifies known relevant records.

Screening process

4

Consider the participation of **two independent reviewers** using **multiphase platforms** like Covidence, Rayyan o Distiller.

Assessing risk of bias

5

There is not an **established gold standard**. The selected instrument must consider:

1. Sample frame.
2. Type of sample.
3. Sample size
4. Coverage of sample.
5. Identification of condition.
6. Appropriate statistics.
7. Response rate.

Data extraction

6

- Generate an **extraction form**.
- Realize a pilot data extraction to **define an uniform criteria**.
- A final **duplicate data extraction**.

Data synthesis

7

- **Prevalence estimates needs transformation** before pooling. Consider to use a random effect model.
- Consider subgroup and sensitivity analysis.
- If a **numerical synthesis is not possible**, consider to **follow SWiM guidelines for narrative synthesis**.

Assessing the certainty of evidence

8

There is no GRADE system PRS. Consider:

- **High initial certainty:** Properly designed studies and population representativeness.
- **Low initial certainty:** No population representativeness.

9

Register the protocol

Consider a public repository or to publish the protocol.