

Search Strategy

The SPIDER (Sample, Phenomenon of Interest, Design, Evaluation, Research type) tool was used to describe key elements of the review question and inform the search strategy. The SPIDER tool is particularly useful for qualitative research as it adapts the PICO (Population, Intervention, Comparison, Outcome) components, making it more suited for qualitative studies where outcomes might be subjective constructs such as attitudes, views, and experiences. In this case, the SPIDER tool helps in formulating research questions that better capture the nuances of qualitative research. Table 1 shows how the SPIDER tool can be applied to the research question (see below).

Table 1. The SPIDER Tool Applied to the Review Questions

Sample	Phenomenon of Interest	Design	Evaluation	Research Type
Adults with chronic insomnia, including those with underlying anxiety or depression	Impact of mindfulness meditation on sleep quality and emotional well-being	Published literature of any research design, grey literature	Changes in sleep patterns, stress levels, and emotional resilience	Qualitative, quantitative, and mixed methods peer-reviewed studies. Grey literature including government reports, conference proceedings, and educational theses

Table 2. Search Terms Mapped Against the SPIDER Tool

Sample	Phenomenon of Interest	Evaluation
AB chronic insomniac* OR TI chronic insomnia* OR AB anxiety disorder* OR TI anxiety disorder*	AB mindfulness meditation* OR TI mindfulness meditation* OR AB sleep quality* OR TI sleep quality*	AB sleep improvement* OR TI sleep improvement* OR AB mood change* OR TI mood change* OR AB emotional

OR AB depression in adults* OR TI depression in adults* OR AB mindfulness participant* OR TI mindfulness participant*	OR AB emotional well-being* OR TI emotional well-being* OR AB sleep disturbance* OR TI sleep disturbance* OR AB relaxation therapy* OR TI relaxation therapy*	resilience* OR TI emotional resilience* OR AB anxiety reduction* OR TI anxiety reduction* OR AB stress level* OR TI stress level* OR AB relaxation response* OR TI relaxation response*
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Strategy for Searching

Since the review question does not target a specific study methodology, it was decided that the ‘Design’ (D) and ‘Research Type’ (R) elements of SPIDER would not be included in the search terms. This was done to capture a wider range of articles that may not explicitly reference these elements, thereby being more inclusive in our search.

Initial scoping searches separated the Sample (S) and Phenomenon of Interest (PI) using AND, but this did not yield useful results. It was found that in some cases, papers conflate the sample and the phenomenon of interest, thus we adjusted our strategy by using OR between S and PI, e.g., (S OR PI) AND E. This approach maximised our inclusivity, allowing for a broader selection of qualitative research papers that fit the topic.

Table 3. Adapted Search Terms for Bibliographic Databases

Search Terms
AB meditation OR TI meditation OR AB mindfulness OR TI mindfulness OR AB sleep therapy OR TI sleep therapy OR AB insomnia treatment OR TI insomnia treatment OR AB anxiety management OR TI anxiety management OR AB relaxation OR TI relaxation OR AB emotional balance OR TI emotional balance
AB sleep quality OR TI sleep quality OR AB emotional well-being OR TI emotional well-being OR AB sleep disturbance OR TI sleep disturbance OR AB mindfulness practice OR TI mindfulness practice OR AB stress reduction OR TI stress reduction OR AB mood improvement

Conclusion

The SPIDER framework allows for a detailed and inclusive search strategy that is well-suited for qualitative and mixed-methods research. By adapting traditional search strategies and incorporating key terms such as sample, phenomenon of interest, and evaluation, the SPIDER tool enables the formulation of precise and relevant research questions. This approach, coupled with the adaptation of search terms and methodology, facilitates a more comprehensive search for literature related to mindfulness and sleep quality in adults with chronic insomnia.