

Search strategy

This search strategy is based on Bramer et al (2018) and was employed in the article Psychological stress and vitiligo disease: A systematic Review.

1. Determine a clear and focused question

The question of this systematic review is: How does psychological stress influence the development of vitiligo disease in children and adults?

2. Describe the articles that can answer the question

Our question can be answered by clinical trials and research articles addressing the role of psychological stress in the development of vitiligo disease in children and adults. Our preliminary search indicates that psychological stress has been related to several immune diseases, such as alopecia areata, diabetes, and thyroid disease. Nonetheless, this systematic review will focus solely on vitiligo disease.

3. Decide which key concepts address the different elements of the question

The research question entails two elements: 1) Vitiligo in children and adult patients (target population) as the principal focus of our research. 2) Psychological stress or stressful life events. The aim of this review is to find research addressing the effects of psychological stress in vitiligo disease.

4. Decide which elements should be used for the best results

The optimal search strategy will contain both elements: psychological stress and vitiligo disease.

5. Choose an appropriate database and interface to start with

We conducted a manual article search using the Core Collection of Web of Science, and PubMed. In this phase, we included study cases, review articles, and original research related to the review topic.

6. Document the search process in a text document

In all platforms we employed the following search query: “psychological stress” AND “vitiligo”.

We aimed to collect up to 25 references from the manual search in the Core Collection of Web of Science, and PubMed. Then, employing the *litsearchr* package for R-statistical Software, we analyzed the titles, abstracts and keywords of the retrieved literature to unbiasedly identified common words:

[1] "perceived stress"	"perceived stress scale"
[3] "vitiligo patients"	"vitiligo development"
[5] "vitiligo background"	"stressful events"
[7] "psychological stress"	

Considering this common word list, we conducted a systematic literature search in three databases (Scopus, the Core Collection of Web of Science, and PubMed) using the following terms:

Vitiligo, vitiligo development, vitiligo patients, psychological stress, perceived stress, stressful events, perceived stress scale.

We included articles published in English (01.01.2000 to 31.01.2021), excluding those belonging to predatory journals (<https://predatoryjournals.com/journals/>). Moreover, we excluded the terms "leukoderma" and "oxidative stress" from the query, which denote research fields outside the scopus of this review.

7-14. Points 7 to 14 from Bramer et al. (2018) are considered in the following specific search queries for each database:

Scopus

This database does not have a controlled vocabulary. Specifically, the query was performed in the title, abstract and keywords (TITLE-ABS-KEY) as allowed by the search engine.

Search Query:

(TITLE-ABS-KEY ("vitiligo") OR TITLE-ABS-KEY ("vitiligo development") OR TITLE-ABS-KEY ("vitiligo patients") AND TITLE-ABS-KEY ("psychological stress") OR TITLE-ABS-KEY ("stressful events") OR TITLE-ABS-KEY ("perceived stress") OR TITLE-ABS-KEY ("perceived stress scale") AND NOT TITLE-ABS-KEY ("leukoderma") AND NOT TITLE-ABS-KEY ("oxidative stress") AND DOCTYPE (ar) AND PUBYEAR > 2000 AND (LIMIT-TO (SRCTYPE,"j"))) AND (LIMIT-TO (LANGUAGE,"English"))

Number of retrieved articles: 33 articles

Core Collection of Web of Science (WOS)

This database does not have a controlled vocabulary. We performed the search query in Title, abstract, author keywords, and keywords plus (TS).

Search Query:

TS=("vitiligo" OR "vitiligo development" OR "vitiligo patients") AND TS=("Psychological Stress" OR "stressful events" OR "perceived stress" OR "perceived stress scale") NOT TS=("Leukoderma" OR "oxidative stress") AND PY=(2000-2021)

Number of retrieved articles: 16

Pubmed

Terms	Controlled vocabulary (Mesh)	Synonymous
Vitiligo	Vitiligo	None
Psychological Stress	Psychological Stress	Psychological Stresses Stresses, Psychological Life Stress Life Stresses Stress, Life Stresses, Life Stress, Psychologic Psychologic Stress Stressor, Psychological Psychological Stressor Psychological Stressors Stressors, Psychological Psychological Stress

Search Query:

(((((vitiligo[MeSH Terms]) OR (vitiligo[Title/Abstract])) OR (vitiligo patients[Title/Abstract])) OR (vitiligo development[Title/Abstract])) AND (((((psychological stress[MeSH Terms]) OR (psychological stress[Title/Abstract])) OR (stressful events[Title/Abstract])) OR (perceived stress scale[Title/Abstract])) OR (perceived stress[Title/Abstract])))) NOT (((oxidative stress[MeSH Terms]) OR (oxidative stress[Title/Abstract])) OR (leukoderma[Title/Abstract])) AND (2000:2021[pdat])) AND ((English[Language]) AND (("2000/01/01"[Date - Publication] : "2021/01/31"[Date - Publication]))))

Number of articles: 58

References

Bramer, W. M., de Jonge, G. B., Rethlefsen, M. L., Mast, F., & Kleijnen, J. (2018). A systematic approach to searching: an efficient and complete method to develop literature searches. *Journal of the Medical Library Association*, 106(4), 531–541.