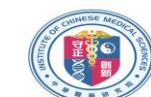## Exploring the Advances in Plaque Psoriasis Research: A Scientometric Analysis and Visualization (2000-2025)

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INTRODUCION

Psoriasis, a chronic inflammatory, immune-mediated skin condition that affects the scalp, nails, joints, or systemic regions, affects 2–3% of the global population and lowers quality of life. In 2016, the WHO identified five common types of psoriasis: vulgaris, intertriginous, guttate, pustular, and erythrodermic. Psoriasis vulgaris, with erythema, scaling, and keratinocyte hyperproliferation, affects 90% of patients. Psoriasis is most common in plaque form, 85–90%. Chronic inflammatory plaque psoriasis affects 3% of the global population. Oval or irregular erythematous plaques with white scales are present. Lesions are usually found in extensor regions like the elbows, knees, scalp, and lumbar area, but they can appear anywhere and are often symmetrical. The condition is not life-threatening, but treatment is difficult, and response rates vary. Bibliometrics is popular in medical research. Research on plaque psoriasis shows how in-depth analysis of scientific progress in a particular domain can improve disease diagnosis and treatment. A bibliometric analysis is necessary to evaluate psoriasis research and determine future directions. Pritchard's concept uses statistical parameters to identify research constituent trends and collaboration patterns. Citations indicate a paper's impact. Bibliometrics helps scientists and clinicians identify research contexts and focal points in specific fields, forecast research trends, and improve research efficiency in the age of big data. Previous bibliometric analyses examined the 100 most cited psoriasis vulgaris and biologics articles from 1991 onwards. The small number of articles limits this analysis. Our analysis covers 2000-2025 scientometric review, with over 13000 articles on psoriasis vulgaris to assess the research over the past 25 years. The aim of our research is to predict the next direction of research and provide more guidance on how to treat psoriasis so that patients can get the maximum benefit..

AIMS & METHOD

Aim of study
- **Mapping the research landscape**
- **Identifying research gaps and opportunities**
- **Evaluating research impact**
- **Informing policy and decision-making**
- **Fostering collaboration and knowledge sharing**

Objective
- **Evaluate the research productivity and growth trends in the field of psoriasis vulgaris**
- **Identify the most influential publications, authors, and institutions driving the research**
- **Analyze the thematic focus and emerging research areas in psoriasis vulgaris**
- **Explore the collaborative networks and interdisciplinary nature of the research**
- **Provide insights to guide future research priorities and resource allocation**

Methodology
- **Literature search (WOS)**
- **Scientometric review/ Results**

vosViewer   CiteSpace

Discussion on literature review /Recommendations for future
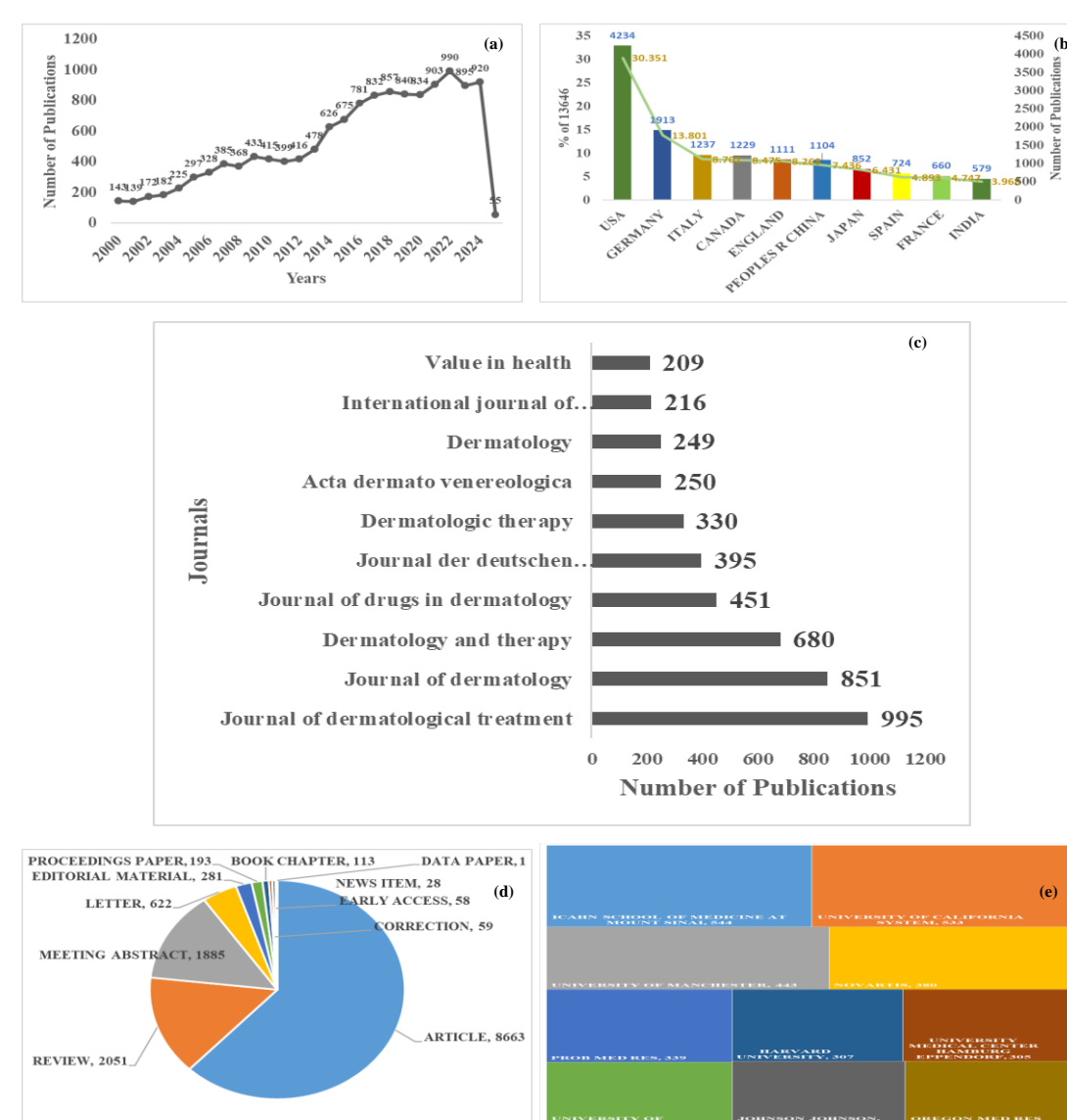
RESULTS & DISCUSSION

Figure 1 (a) Trend in research on Psoriasis vulagris from 2000-2025, January. (b) Top ten countries with the most number of publications on scurf like psoriasis. (c) Top listed journals with most documents published on psoriasis vulgaris. (d) Types of documents published on psoriasis vulgaris. (e) Institutions with more than 100 publications on Scurf like psoriasis.
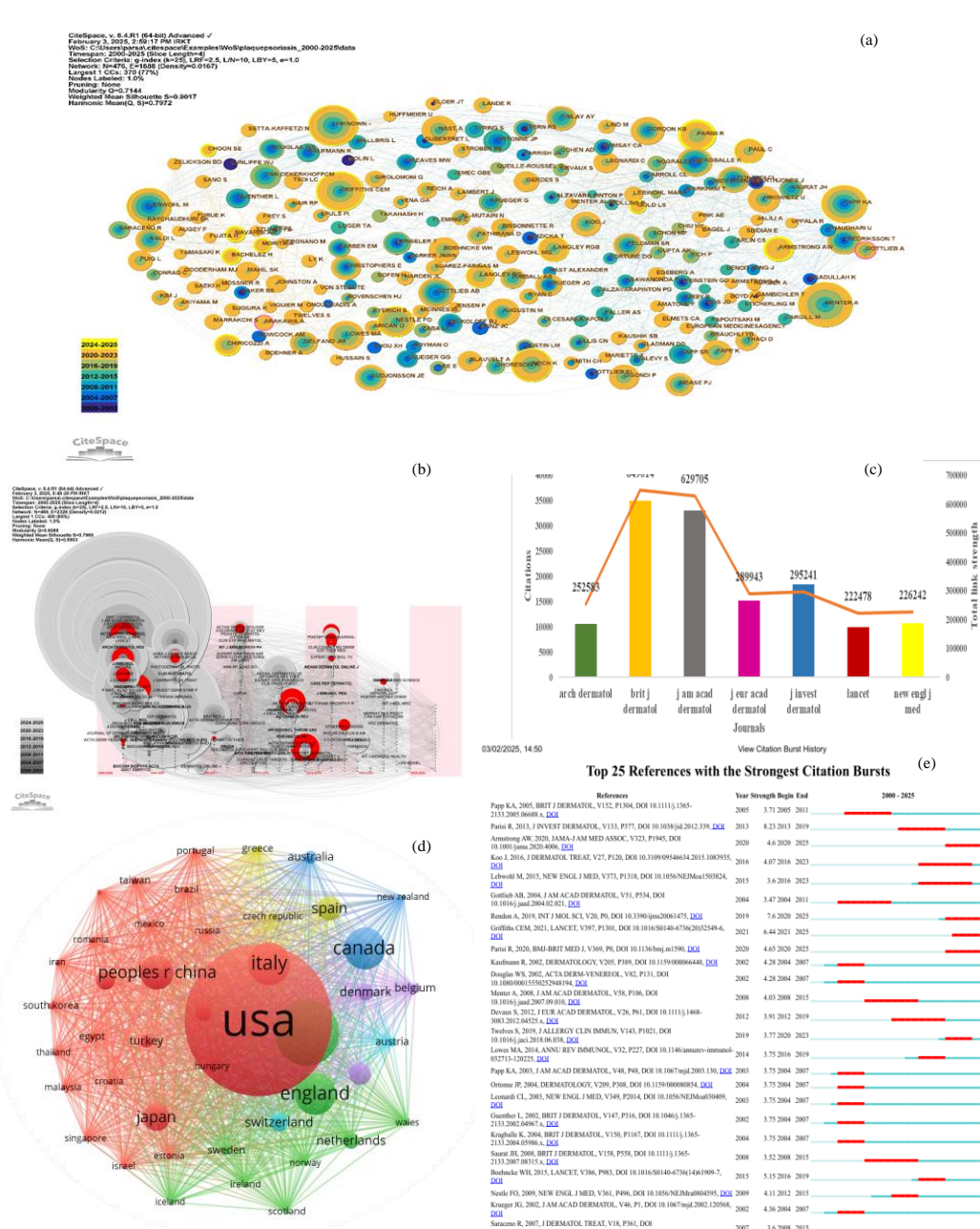

Figure 2 (a) Network map of author-co-citaion analysis. (b) Timeline chart for journals with burst co-citations in red colour circles. (c) Combo graph showing Journal with high number of citations and link strength. (d) Bibliometric coupling of 44 countries. (e) References with strongest burst citation.

Figure 3 (a) Network of coauthorship-author analysis. (b) Top 6 authors with citations (<1000). (c) Network of Co-authorship- organisation analysis of 115 universities (d) Top 11 countries with more than 150 publications and high citations. (e) network of co-authorship-countries analysis of 49 countries (f) Combo plot shows Co-authorship-countries analysis with the most publications and citations.

Figure 4 (a) Network of authors with a high number of citations. (b) Top 10 authors with a high number of citations. (c) Network of 74 journals with the higher number of citations. (d) Journals with publications on psoriasis vulgaris with higher no. of citations. (e) Network of 114 articles cited <300 times. (f) Network of 115 organizations with a minimum of 50 articles and more than 100 citations.
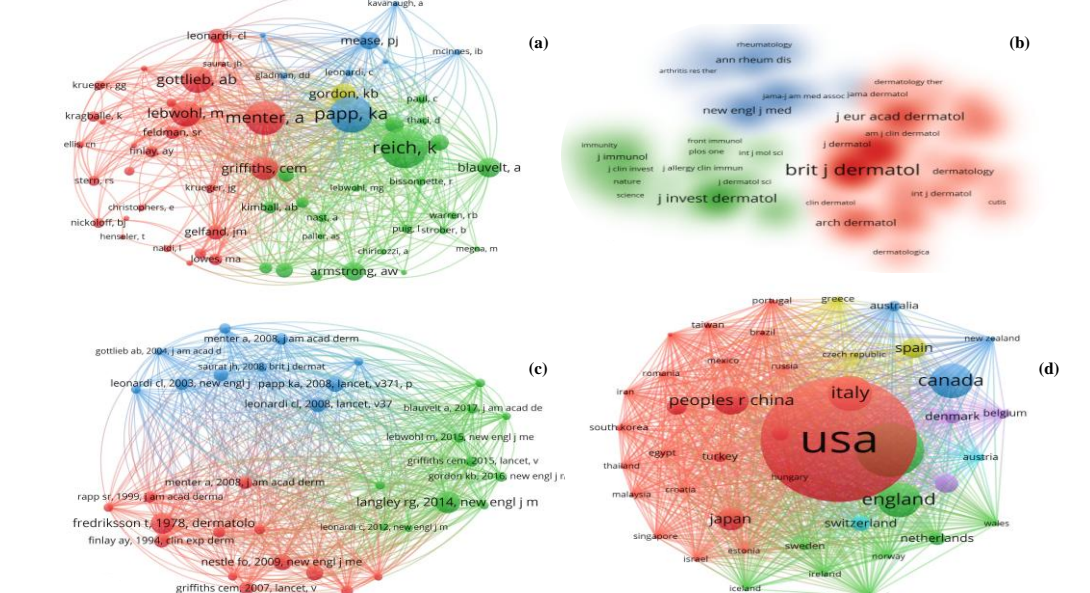

Figure 5 (a) Network of Cocitation-author analysis of 59 authors. (b) 3 clusters density visualization of Cocitation-sources. (c) Cocitation-document network of 59 publications. (d) Bibliometric coupling of 44 countries.
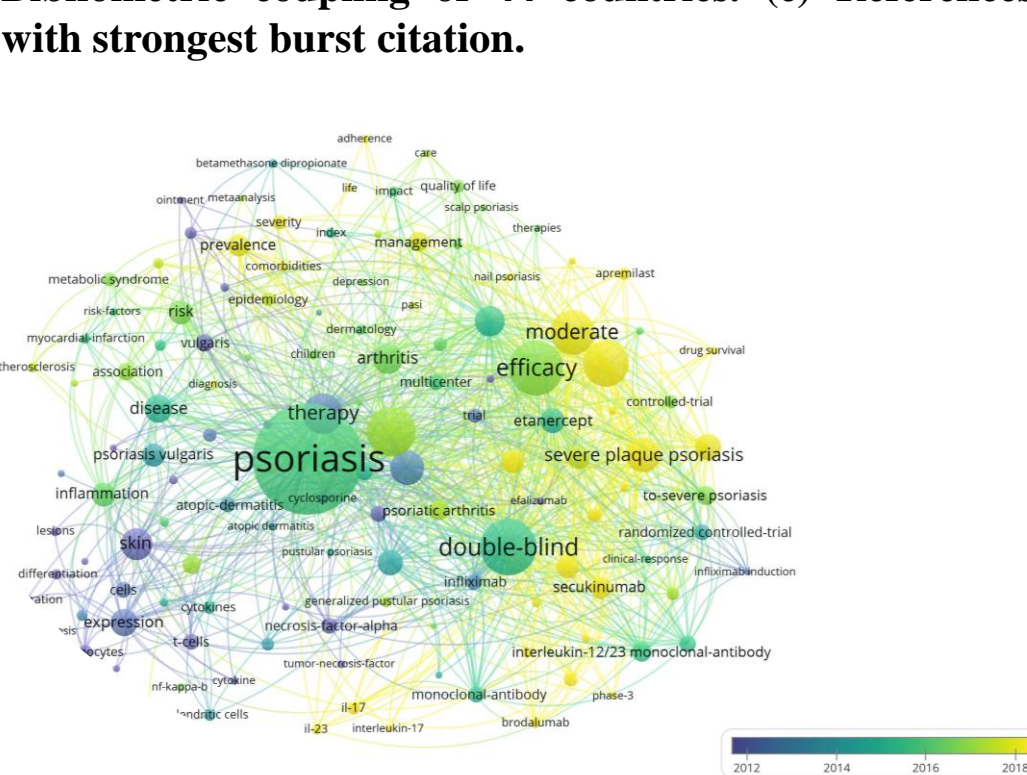

Figure 6. Keyword cooccurrence analysis

CONCLUSION

This scientometric analysis of research on plaque psoriasis from 2000 to 2025 provides insights into the evolution, key contributors, collaborations, and research directions. The United States leads in this field, with Germany, Italy, and England following closely. China lags behind, with a nearly twofold difference. The study highlights a trend towards topical medicine and natural products derived from steroids, integrating pharmacology, nanotechnology, and immunology to address the disease and its associated comorbidities. The citation analysis identifies influential researchers and emphasises the need for diverse contributions. The findings suggest that enhancing cooperation and equitable research opportunities in plaque psoriasis treatment is feasible. Funders and policymakers should recognise and address geographical disparities in research, and global collaborations aimed at discovering natural cures can enhance patient outcomes worldwide.

STRENGTHS & LIMITATIONS

This study provides a comprehensive analysis of worldwide research on psoriasis vulgaris using bibliometric methods. It explores the current status, progress, hotspots, and frontiers in the field using visualized mapping. The data was sourced from the Web of science database, ensuring consistency and quality. The analysis revealed the scientific research capability of various authors, affiliations, and countries, as well as collaborative partnerships. However, the study has limitations, such as data retrieval completed within a single day, data limited to 2000-2025 January, and CiteSpace software's limited analysis of time span and VOS viewer with less options of enhancing map quality. . Additionally, the data was only obtained from the Web of science database, potentially leading to incomplete analytical data. Furthermore, the study only included publications written in English, excluding significant accomplishments published in other languages. Despite these limitations, the majority of scientific outputs related to psoriasis vulgaris/plaque psoriasis have been incorporated, and the deviations are considered acceptable.

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