A Bibliometric Analysis: Food Combination and Metabolic Health

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Abstract

This capstone project is about a bibliometric analysis of food combinations and metabolic health.

Search was conducted in the Web of Science database in July 2026, effectively filtering out irrelevant noise and got 253 target articles.

VOSviewer and Notebook LM were utilized to analyze the records. Notebook LM helped categorize articles into three categories.

Those are overall patterns, component combinations, and dietary habits. This categorization allows papers to be ranked by topic alignment.

Furthermore, VOSviewer visualization helped clarify which words should be prioritized when categorizing research papers.

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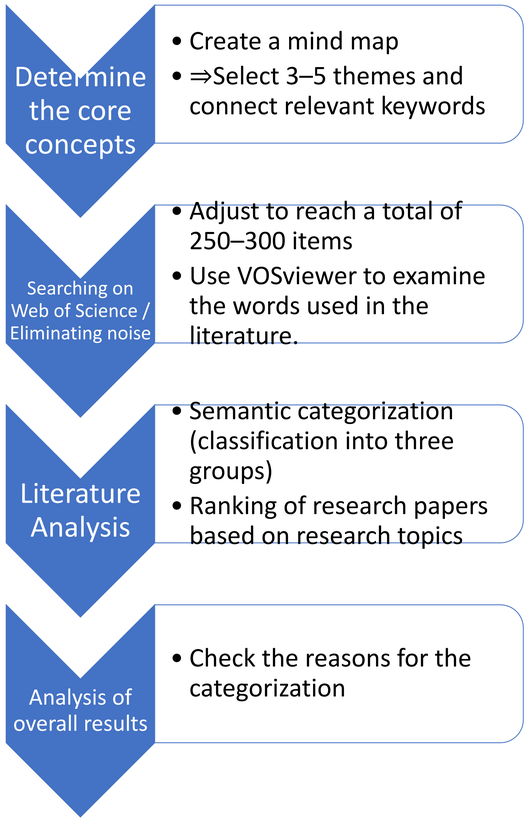
Background

Bibliometrics research allows for the objective evaluation of studies through the use of specific indicators.

Additionally, focusing on the keywords used in research papers offers the advantage of enabling the categorization of papers and the grading of their degree of relatedness.

Method



Result

- ① Conducted a search on Web of Science with five key concepts, “food combinations”, “gut environment”, “metabolism”, “body weight”, and “human subjects” and thoroughly eliminated irrelevant results (such as those from the agricultural sector) using NOT operators and filters, narrowing the list down to 253 items.
- ② Used VOSviewer to visualize keyword co-occurrence networks and identify which keywords held central importance in the academic literature ⇒This aided in the selection of search terms and the visual identification of irrelevant results.
- ③ grouped the abstracts of the 253 identified articles, classifying the literature into three categories, "overall patterns," "combinations of components," and "dietary habits." Also ranked the items based on their relevance to the topics.

Conclusion

A bibliometric analysis revealed a link between food combinations and metabolic health.

The bibliometric search and analysis skills acquired in this study will serve as a foundation for approaching future research and designing evidence-based, practical studies.

Discussion

Since I used AI to perform an objective classification this time, I would now like to review the results one by one and subjectively verify their accuracy.

Future direction

I intend to apply the bibliometric analysis method in future research to identify target areas more efficiently and on a sounder theoretical basis. Specifically, I aim to use this approach to explore whether diet can be utilized to improve specific health conditions and, if so, to determine exactly what should be consumed to achieve effective results.

Reference