

Understanding Health Sciences Academic Mindfulness Landscape: A Medline Bibliometric Study

Lidia Carballo-Costa^{1*}, Elena Alfaya-Lamas²

¹Senior lecturer, MSc, Department of Physiotherapy, Medicine and Biomedical Sciences, Faculty of Physiotherapy, University of A Coruna, Spain

²Associate Professor. PhD, Humanities, University of A Coruna, Spain

*Corresponding Author

Background

Bibliometrics is a research area that applies mathematical and statistical methods to study quantitative data from scientific publications and their citation links, in order to study the impact of science, and the mapping of scientific fields [1,2]. The research area of mindfulness has experienced continual growth over the years [3]. This expansion of the area makes it difficult to obtain a comprehensive overview of the mindfulness scientific publications, specifically those related to health sciences, due to the multidisciplinary development. In this study, we perform a bibliometric study in order to systematically analyze the research in this field through the identification of its thematic structure. The thematic structure can be defined by its shared conceptual systems as expressed through the terminology used within the discipline [4], with groups of identified concepts clustered into research areas by means of bibliometric techniques. These techniques allow us to analyse and visualise the results in semantic maps.

Purpose

This study aims at identifying current research areas composing the thematic structure of mindfulness related to health sciences scientific literature. It is also our aim to identify prolific authors in this academic field.

Methods

This is a bibliometric, descriptive, and retrospective study. We have identified all publications from Medline (PubMed) database mentioning mindfulness in either the title, abstract, or Mesh terms assigned, published in the period 2011-2021. Keyword co-occurrence and temporal development have been analysed and visualised using VOSviewer software. On the basis of titles and abstracts of the publications gathered, VOSviewer software extracted and selected the most representative terms. It also created a visualisation, using a technique for clustering terms into “research areas”, such as the most important topics studied in the literature. Most productive authors were identified based on affiliation data provided by Medline database.

Results

Major findings from this research include the identification of 9,679 publications as well as a thematic structure composed by 9 research areas on mindfulness. Ranking next in size decreasing order: “chronic diseases and cancer”, “health professionals”, “neurosciences and neurology”, “social groups behaviour”, “mental disorders”, “lifestyle diseases and eating disorders”, “psychology”, “physiology”, and “COVID-19 pandemic”. Most recent studies are focused on the mental health of health professionals, cancer, and “COVID-19 pandemic” research area. Most prolific authors are Eric Garland (USA), Javier García-Campayo (Spain), and Anne Speckens (Netherlands).



Limitations

Bibliometric studies based only on keywords are not as comprehensive as those using journals and citation networks as well. Despite the wide coverage of Medline database in health sciences, it is possible we are not recalling all publications about mindfulness related to health sciences.

Conclusion and Implication

This bibliometric study summarizes and depicts the most recent academic research areas of mindfulness related to health sciences and its main authors, revealing the thematic structure of mindfulness research covered by Medline. This kind of visualization is helpful to researchers, policymakers, and funders to understand the landscape, and to detect research gaps and possible new directions of research.

Keywords: Mindfulness, health sciences, bibliometrics, visualization, VOSviewer

References

- [1] H. F. Moed, W. Glänzel and U. Schmoch, Eds., *Handbook of quantitative science and technology research. The use of publication and patent statistics in studies of S&T systems*. Amsterdam: Springer Netherlands, 2005.
- [2] A. F. J. Van Raan., "Measuring science: basic principles and application of advanced bibliometrics.", in *Handbook of Science and Technology Indicators*, W. Glänzel, H. F. Moed, U. Schmoch, M. Thelwall, Eds., New York: Springer Verlag, 2019, pp. 237-280.
- [3] A. Baminiwatta and I. Solangaarachchi, "Trends and Developments in Mindfulness Research over 55 Years: A Bibliometric Analysis of Publications Indexed in Web of Science," *Mindfulness*, vol. 12, no. 9, pp. 2099–2116, Jul. 2021, doi: 10.1007/s12671-021-01681-x.
- [4] S. Milojević, C. R. Sugimoto, E. Yan, and Y. Ding, "The cognitive structure of Library and Information Science: Analysis of article title words," *Journal of the American Society for Information Science and Technology*, vol. 62, no. 10, pp. 1933–1953, Jul. 2011, doi: 10.1002/asi.21602.