

## Psychological Wellbeing And Healthcare Workers: A Systematic Literature Review, Synthesizing Framework, And Future Research Agenda

M S Siranjeevi<sup>1</sup>, Dr. K. Lavanya Latha<sup>2</sup>

<sup>1</sup>Research Scholar, DMS, Pondicherry University, Puducherry, Assistant professor, MEASI Institute of Management, Chennai.

<sup>2</sup>D Professor, DMS, Pondicherry University, Puducherry.

Email ID: [drklavanyalatha@gmail.com](mailto:drklavanyalatha@gmail.com)

Cite this paper as: M S Siranjeevi, Dr. K. Lavanya Latha, (2025) Psychological Wellbeing And Healthcare Workers: A Systematic Literature Review, Synthesizing Framework, And Future Research Agenda. *Journal of Neonatal Surgery*, 14 (15s), 1730-1740.

### ABSTRACT

Mental wellness is a crucial component of everyone's life and vital for our life; an inequity will lead to adverse consequences pertinent to their profession and personal life. Moreover, it is pivotal for employees working in the healthcare industry, i.e., medical doctors, nurses, healthcare assistants, and support staff who treat the community's ailments. This study presented in this literature review aims to identify the relationship between psychological well-being and Healthcare workers. The methodology employed is a Systematic Literature Review (SLR). We provide a comprehensive bibliometric study of 623 publications on psychological well-being and healthcare workers covering 2000 to 2024, which includes 1185 literature reviews following the preferred reporting items for SPAR-4-SLR. The data retrieved for the literature review is from Scopus. Influential bibliometrics such as publications and citations, productive countries, contributing institutions, funders, journals, authors, and bibliographic couplings were studied using the Scientific Procedures and Rationales for Systematic Literature Reviews (SPAR-4-SLR) protocol and bibliometric tools. The data was curated using Vos viewer, Bibliometrix-R.

**Keywords:** *psychological wellbeing, healthcare workers, SPAR-4-SLR, bibliometric review, visualization.*

### 1. INTRODUCTION

Healthcare professionals' concern about COVID-19 may have a significant adverse effect on their physical and mental well-being. As they are at the forefront of the outbreak, these individuals provide care and treatment for infected patients. Fear of contracting the illness and the terror of infecting others can result in severe stress and anxiety. Stress, worry, burnout, agony, absenteeism, nervous breakdown, guilt, aggravation, and helplessness, along with trouble sleeping, a raised heart rate, and feelings of dread or panic, all affect how well healthcare personnel perform on the job. (Sarfraz,2022, Ransing,2020). Knowing that COVID-19 can spread to friends and family might be depressing. It can impact symptoms and the population's overall health and well-being. Individuals affected by the coronavirus pandemic, particularly those in the medical field, report feeling that time has stopped or slowed down and that there is no clear relationship between days and time. Effective time management can be complex in many circumstances since it appears the future will come sooner rather than later. There can be more significant psychological distress and a mental health imbalance as a result of the altered temporal control. (Holman, 2020). Healthcare workers (HCWs) are often worried about their friends, family, and coworkers' safety, which adds to their already high stress levels. Concerns about being alone, living close to places where people suffer or die, and going through extended periods of vigilance or tiredness (Spoorthy et al., 2020, sprujit ,2023). The 2019 coronavirus outbreak has had an impact on people's emotional and physical health in addition to their physical health (Khan,2020, Machado,2023). Healthcare workers (HCWs) are often worried about their friends, family, and coworkers' safety, which adds to their already high stress levels. Workers' mental health is affected by a variety of factors, including unpredictable work schedules, the need to multitask in hazardous situations, tight safety regulations, and the fear of contracting Covid-19 (Shouman, 2023).

This review article seeks to shed light on the psychological wellness of healthcare workers and how it affects their performance on the job by critically examining the literature. The psychological health of healthcare professionals substantially impacts their work performance, which in turn influences the standard of patient care (Teoh, 2023). Reduced job satisfaction and higher turnover rates are associated with high-stress levels and burnout among healthcare practitioners (Galanis,2023).

We pursue the following research objectives (RO) in our bibliometric inquiry:

- (1) highlight the publication trends in psychological well-being and Healthcare workers.
- (2) Identify the leading authors, journals, articles, and countries in the domain of psychological well-being and Healthcare workers.
- (3) To determine the main themes (structure of knowledge) and topics that characterize psychological well-being and Healthcare workers;
- (4) outline future research lines in psychological well-being and Healthcare workers. After this introductory section, we discuss the review methods to map the domain. The following section elaborates on the results and findings of the review article, followed by examinations of the results and suggestions for future research directions.

## 2. DATA AND METHODS

The SLR is a literature review that systematically collects data and critically analyzes the literature. A SLR aims to give an overview of the studies on topics that relate to a research question. SLR was born within Medicine and Health studies to acquire expertise in a topic, Cruz-Benito, J (2016). SLRs consider the review process a scientific process, and concepts of empirical research are applied to make the review process more transparent and replicable and reduce the possibility of bias. SRs have become a central methodology in the health sciences, and they have developed an infrastructure specifically for conducting these reviews and continuing to refine the method on emerging research questions. Lame, G. (2019, July).

A SLR available on a subject has to be open to all arguments and transparent as to why and how the topic was chosen, how its focus may have changed throughout development, or in supporting the need for the author's subsequent work. Compiling a simple collation or synopsis of the other articles would not be enough. Hart (1999). The need to develop a protocol would fall closely along the foundation of a systematic literature review, ensuring that careful planning is employed, uniformly applied, and transparent to allow for replication. In other words, a protocol allows the researchers to foresee problems, minimize arbitrary decisions, promote responsibility, and preserve integrity, Paul (2021). So far, protocols for carrying out systematic literature reviews are few. Protocols for conducting systematic reviews, which researchers conducting the same use more often, are PRISMA-P - the preferred reporting items for systematic review and meta-analysis protocols by Moher et al. (2009) or Moher et al. (2015).

The sources for the literature review came from the database SCOPUS. The SPAR-4-SLR protocol is followed to conduct the literature review transparently, as described by Paul et al., 2021. Other techniques, like PRISMA and PRISMA-P, are more descriptive. As such, they have limited scope for reviews whose aim is to contribute to theoretical aspects, according to Paul et al., 2021. Figure 1 shows that the SPAR-4-SLR protocol comprises three stages: assembling, arranging, and assessing (Paul et al., 2021).

Across these are six substages: identification, acquisition, organization, purification, evaluation, and reporting (Paul et al., 2021). We provide a systematic review based on the work of Paul and Barari (2022). A systematic review focuses on developing a research area by collating data related to the relevant theories, models, constructs, contexts, or methods. Therefore, research gaps in the methods, theories, and constructs can be identified by the researchers (Paul & Criado, 2020). For the first stage (assembling), we used peer-reviewed published research articles in the SCOPUS academic database in the "article titles, abstract, and keywords" option. Scopus is the largest and most reliable academic database (Hanaa & Abdul, 2023).

Scopus is the largest abstract and citation database of peer-reviewed literature: international journals, books, and conference proceedings that form the most comprehensive view of the world's research output in science, technology, medicine, social sciences, and the arts and humanities. The Scopus database has various operational features to enhance bibliometric analysis. Such features include journal name, type of document, publication year, authors and their affiliations, number of citations, and h-index metrics for documents. (Hirsch 2005 & Agarwal 2016).

### 2.1 Methodology

Table 1 shows the review process and bibliometric information related to research on chatbots in hospitality and tourism. This review article combines the SPAR-4-SLR protocol (Paul et al., 2021) and the bibliometric analysis toolbox. Three significant stages comprise the protocol: assembling (which suggests the identification of research questions and acquisition of data), arranging (which suggests the organization and purification of data), and assessing (which suggests the tabulation, evaluation, and reporting).

ASSEMBLING	ASSESSING	ARRANGING
<b>Identification</b> Domain: Psychological wellbeing of healthcare professional Research Objectives: publication trends in in psychological wellbeing and Healthcare workers job performance (RO1 to RO5) Source Type: Peer-reviewed Journal Articles Source Quality: Scopus Journal List (2024).	<b>Organization</b> Organizing code: Article Title, Journal title, author name, author keywords, number of citations, country of affiliation, and publication year Organizing framework: Not Applicable	<b>Evaluation</b> Analysis Method: Performance Analysis: article, trend, author, country and journal performance. Science mapping: bibliographic coupling Software (Vos viewer) Agenda Proposal Method: Thematic Gap Analysis (future research avenues)
<b>Acquisition</b> Search Mechanism and Material Acquisition: Scopus Search Period: Up to Aug 2024. Search Keywords: See Table 1 Total Number of Articles returned from Search: Scopus n= 13,371	<b>Purification</b> Article type excluded: Non-English Language Papers Article type included: Source Type: Journals, conference papers, Subject areas: social science, psychology, health professions Final dataset for Analysis: n=598	<b>Reporting</b> Reporting Conventions: Tables(metrics), figures(networks), word(narratives) Limitations: Data type (only English-language peer reviewed journals were selected), Data limited to Scopus, Review was limited only to bibliometric information.

Table 1. Review Protocol using the SPAR-4-SLR Protocol

Assembling

We combined the search keywords from previous literature studies published in prominent publications, where relevant articles regarding psychological wellness and healthcare personnel. Here, we list the search terms utilized in Table 2. We used the "article titles, abstract, and keywords" option when we searched the Scopus academic database with our search phrase. Scopus is the largest and most reliable academic database (Hanaa & Abdul, 2023). Many prominent marketing scholars have adopted and encouraged it (Correia & Kozak, 2022). The database provides comprehensive and reliable information to analyze, which is one of the reasons for its extensive application in bibliometric analyses. The total number of documents obtained from the Scopus search was 13,371.

Table 2. Search Strings

<i>Key Concepts</i>	<i>search string (Boolean Operators and Keywords)</i>	<i>References</i>
Healthcare Workers	“health personnel” OR “health professionals” OR “health staff” OR “health workers” OR “health workforce” OR “health-care personnel” OR “health-care workers” OR “healthcare workers” OR “medical personnel” OR “medical workers” AND	Zhang, W. R(2020)
Psychological wellbeing	“psychological well-being” OR “well-being” OR “satisfaction with life”	Ryff et al.(1995)

Arranging

The filters applied to the articles in Scopus included language, topic area, document type, and source type. Since they passed a strict review process, we focused on gathering articles published in peer-reviewed, high-caliber publications indexed in Scopus (Bass et al. 2020). Articles that have faced peer review are essential as they give insights into how the subject under study is unfolding. Topics that were permitted included business, management, accounting, and health professions; the only language accepted was English. Finally, the final dataset was limited to 598 articles.

Assessing

The 598 articles that comprised the final corpus of the literature were analyzed using the study questions outlined in the Introduction section. (2) Science mapping techniques, specifically co-occurrence analysis and thematic mapping showed recurring themes and intellectual structure (RO3) of psychological well-being and healthcare professionals; and (3) trends in publication analysis, identification, and study of top articles, top journals, top authors, and top countries (RO1 and RO2)—the science mapping technique used for the bibliometric analysis to indicate research gaps as part of RO4. The software packages used in this study comprised VOS Viewer (van Eck & Waltman, 2010), Microsoft Excel, and Bibliometrix-R (Aria & Cuccurullo, 2017).

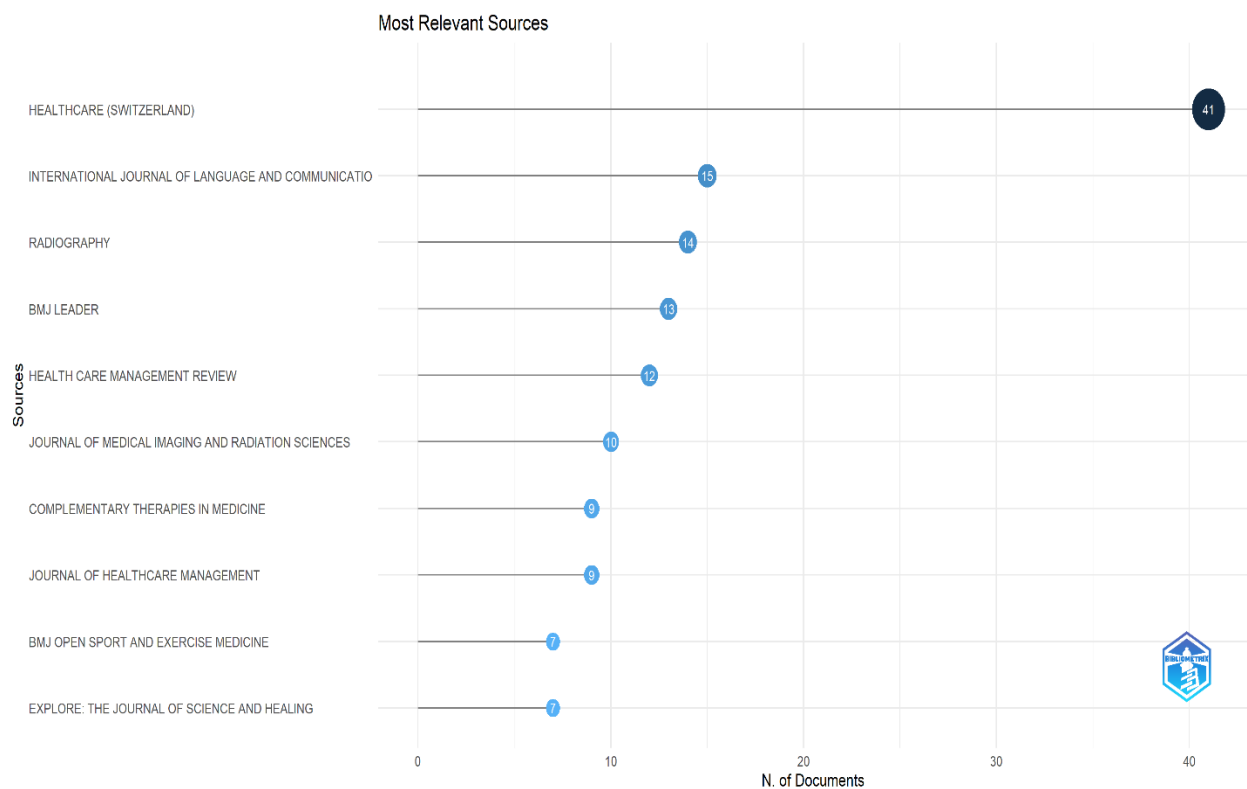
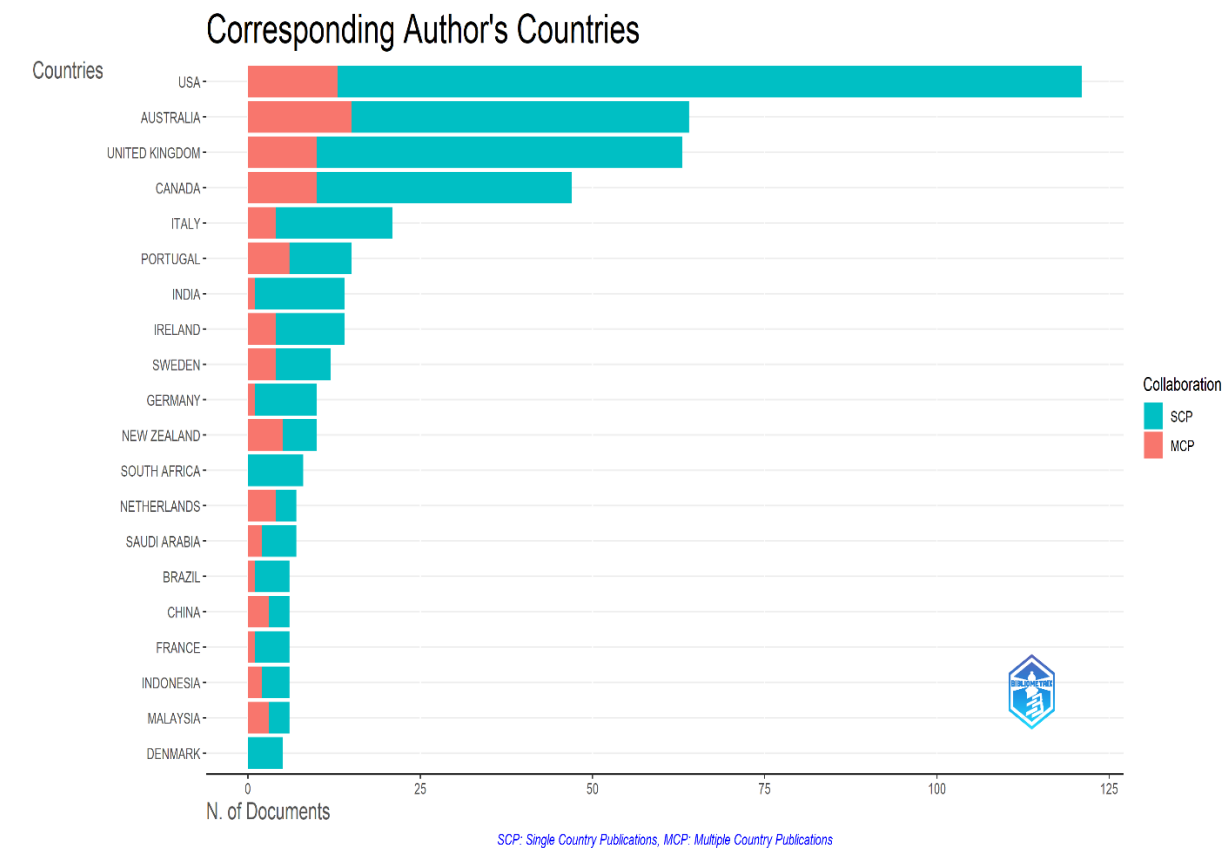
2.2 Publication Trends

I followed the development of psychological well-being among healthcare workers from 2000 to 2024. The search brought in results of at least 13,371 papers in total. The trends found indicate that this field of study is very new. However, the quantity of articles it has received recently is rather impressive. The domain has experienced fast growth in publishing production since 2020: the number of papers produced has exceeded 60 documents per annum, and 2023 was the most productive year, with 92 articles published. At first sight, very little research had been done in the field before 2010, which may indicate potential traps and hotspots.

2.3 Most Prolific Contributors

Table 3 ranks countries and journals with the most publications. The articles relate to psychological well-being and healthcare employees, whose research has been contributed by over 30 countries and sourced from 40 journals. This research domain credits the United States of America as the most productive country with 164 articles, followed by Australia and the UK with 95 and 85 articles, respectively. The top three most productive journals in the domain of top-ranked psychological well-being journals include Healthcare Switzerland, with 41 articles; International Journal of Language and Communication Disorders, with 15 articles; and Radiography, with 15 articles. The most prolific writers in the field are Bartram.T (4), Adams. J (3), and Burns. C (4).

**Table 3. Most Prolific Countries and Journals for psychological wellbeing and healthcare workers.**



## 2.4 Most cited article:

The article Psychosocial Safety Climate: Development of the PSC-12 (2010) has the greatest number of citations, 277, Followed by The Job Demands-Resources Model: An Analysis of Additive and Joint Effects of Demands and Resources, cited 230 and, Family-centered Theory: Origins, development, barriers, and supports to implementation in rehabilitation medicine, cited 229, as the most shared articles talking about psychological wellbeing. And, as cited by 210, Mental Health in Elite Athletes: Enhanced Awareness Needs an Early Intervention Framework to Address Athlete Needs Teaching Mindfulness to Students Pursuing Health Professions A systematic review of randomized and non-randomized controlled trials was conducted to determine whether training with mindfulness affects the psychological wellbeing, learning, and clinical performance of students who practice health professions, its cited as much as 208 times.

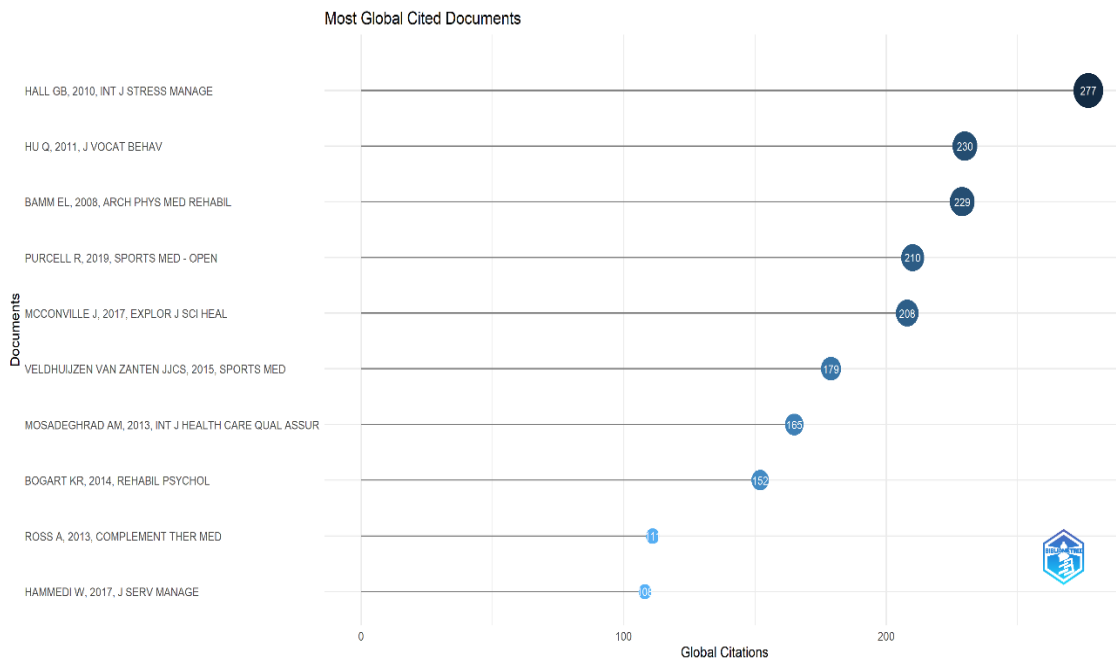


Fig 1 : Most cited article

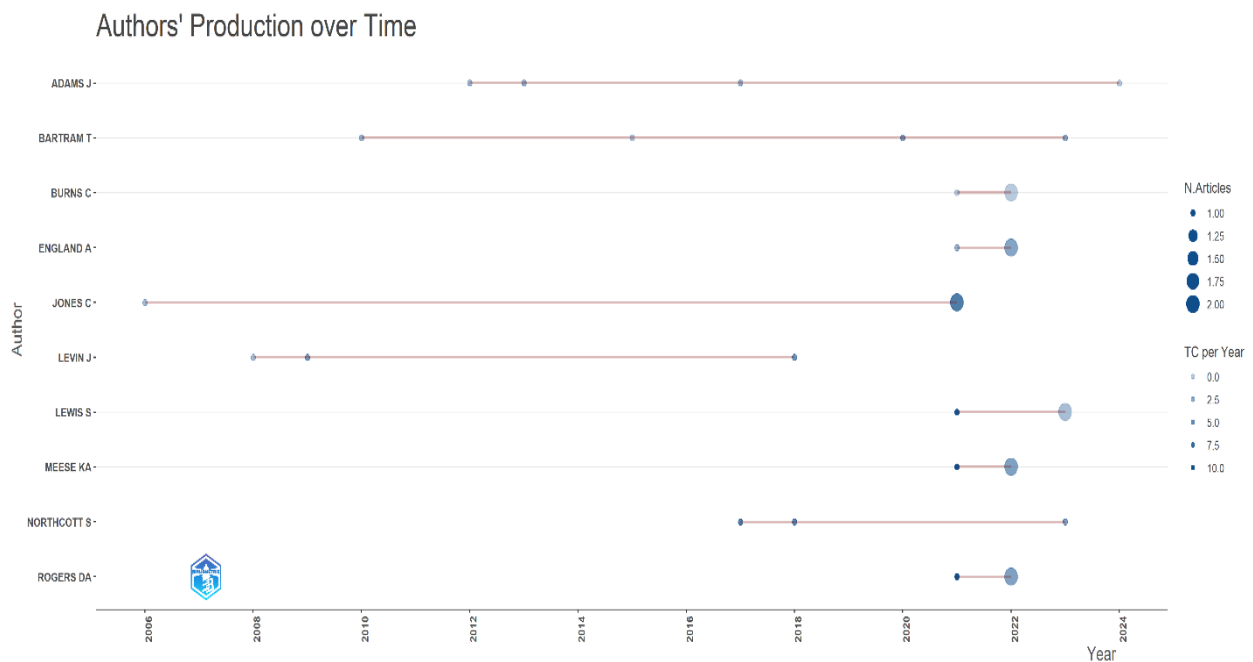
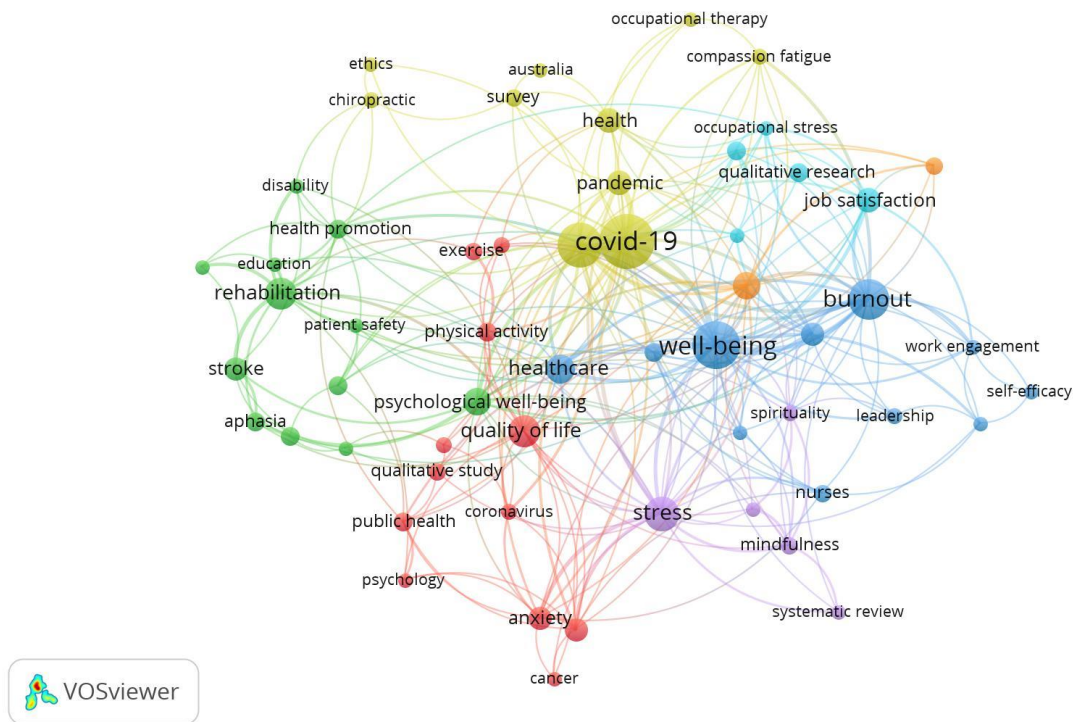


Fig 2: Most prolific authors



## 2.5 Major Clusters or Themes

Following Khan et al. (2023), we conducted a co-occurrence analysis of articles with a threshold of at least three occurrences to establish the key clusters or themes for psychological well-being and healthcare workers' research. The outcome is 55 keywords matching the threshold out of 598 articles divided into five significant clusters or themes, as shown in Figure 1. The following list summarizes the main characteristics of each cluster.



**Fig 3: Keyword and Co-occurrence Network of psychological wellbeing and healthcare workers.**

Cluster	Keywords
<b>Cluster 1</b>	Anxiety, cancer, corona virus, dementia, depression, exercise, older adults, physical activity, psychology, public health, qualitative study, quality of life (12)
<b>Cluster 2</b>	Aphasia. Disability, dysphagia, education, health promotion, management, patient safety, psychological wellbeing, qualitative, rehabilitation, sexuality, stroke. (12)
<b>Cluster 3</b>	Burnout, emotional intelligence, healthcare, healthcare professional, leadership, nurses, resilience, self-efficacy, stress management, wellbeing, work engagement. (11)
<b>Cluster 4</b>	Australia, chiropractic, compassion fatigue, covid-19, ethics, health, mental health, occupational therapy, pandemic, survey. (10)
<b>Cluster 5</b>	Meditation, mindfulness, spirituality, stress, systematic review (5)
<b>Cluster 6</b>	Job satisfaction, occupational stress, qualitative research, spinal cord injury, wellbeing (5)

#### Cluster 1 (Red Network):

The first thematic cluster comprises twelve keywords and focuses on anxiety, quality of life, and psychology. The co-word metrics in this cluster indicate that “coronavirus” and “Quality of life” have been investigated in tandem with physical activity, public health, and qualitative study.

#### Cluster 2 (Green Network):

The second thematic cluster contains twelve keywords and concentrates on psychological well-being observed during COVID-19 and rehabilitation. The co-word metrics in this cluster indicate health promotion and patient safety in tandem with Aphasia, Disability, dysphagia, education, and management.

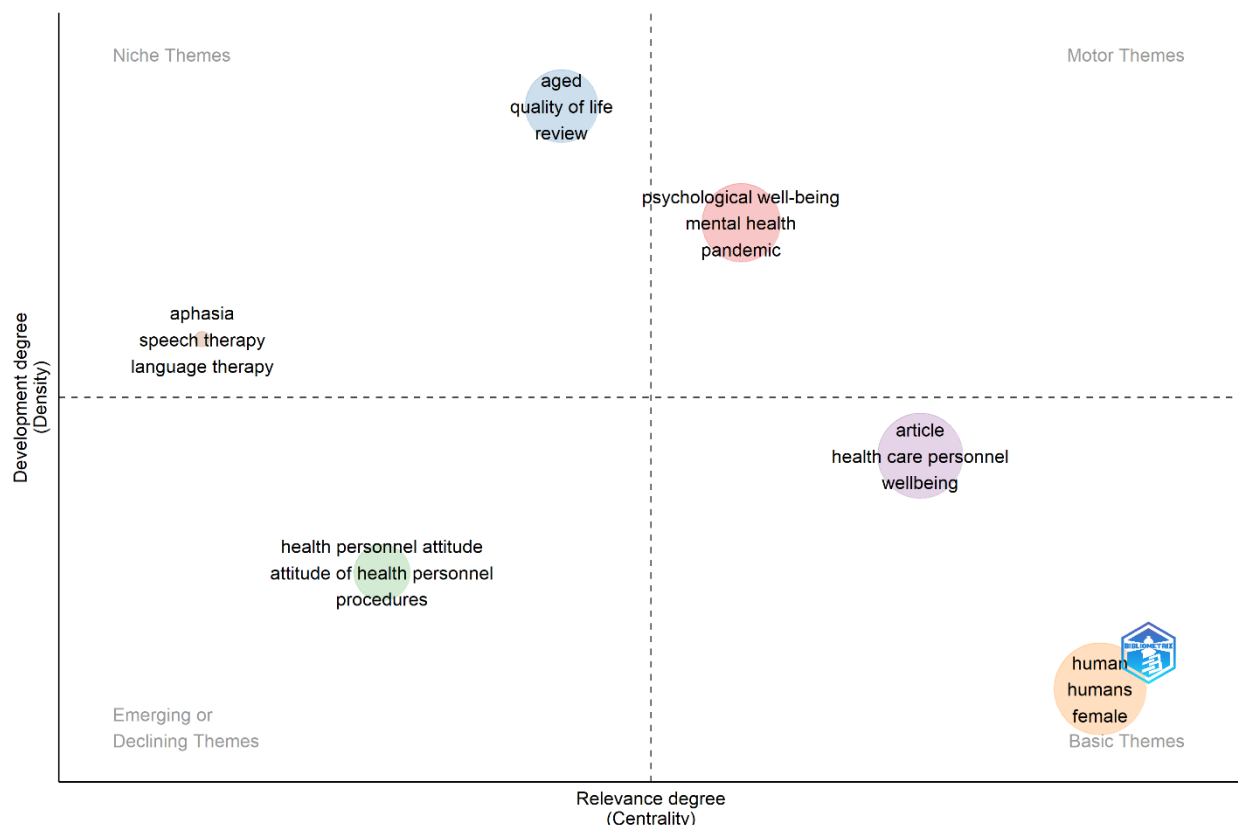
Cluster 3 (Blue Network): The third thematic cluster consists of eleven keywords focusing on qualitative research in the psychological well-being of healthcare workers. The co-word metrics in this cluster emphasize burnout, emotional intelligence, healthcare, healthcare professionals, leadership, nurses, resilience, self-efficacy, stress management, well-being, and work engagement.

Cluster 4 (Yellow Network): The fourth thematic cluster comprises ten keywords encompassing the impact of COVID-19 on healthcare workers. The co-word metrics in this cluster emphasize Australia, chiropractic, compassion fatigue, COVID-19, ethics, health, mental health, occupational therapy, pandemic, and survey.

Cluster 5 (Violet network): The fifth thematic cluster includes five keywords concentrating on the well-being of healthcare employees. The co-word metrics in this cluster mainly emphasize Meditation, mindfulness, spirituality, stress, and systematic review.

Cluster 6 (Dark blue network): The sixth thematic cluster includes five keywords concentrating on the satisfaction of healthcare employees. The co-word metrics in this cluster mainly emphasize job satisfaction, occupational stress, qualitative research, spinal cord injury, and well-being.

### 2.6 Thematic map



**Fig 4: Thematic map**

Thematic mapping is the process of the identification and analysis of various themes based on a body of literature. Biblioshiny generates thematic maps according to each theme's degree of development, density, centrality, or relevance. Density is on the horizontal axis, while centrality is on the vertical axis. Every cluster on the map will represent a unique topic, and the



number of nodes within each cluster will represent how frequently a word from a keyword occurs within that subject. Thematic mapping is divided into one of four quadrants according to its centrality and density. The four quadrants are the first quadrant as low-density but high-centrality niche themes; the second quadrant is high-density and low-centrality motor themes; the third is high-density but low-centrality basic themes; and the fourth is low-density and low-centrality emerging or declining themes.

The thematic map of psychological well-being research displays an image of the landscape of interrelated themes, where we identify differences in relevance (centrality) and degree of growth (density). It underlines essential areas of focus and new developments within the field to provide insights into the state and possible future orientations of psychological well-being. **Motor themes**

The themes that are fully developed and form the basis of the journal's research are included in the first quadrant. Motor themes are important for research on the production and formation of knowledge because of their high density and strong centrality (i.e., related by a long list of keywords). This quadrant includes the following subjects: pandemic, mental health, and psychological well-being.

#### **Niche Themes**

Highly developed, closely related, and highly specialized themes are called niche themes. These topics have made Significant progress (Llanos-Herrera & Merigo, 2019). This quadrant contains two clusters: age, quality of life, and review, as well as aphasia, speech therapy, and language therapy.

#### **Emerging or Declining Themes**

Emerging or declining themes were in this quadrant. Weak themes are either in their early stages of development as emerging subjects or in their latter stages as declining topics characterized by low density and centrality. This quadrant includes health personnel's attitude toward health personnel procedures.

#### **Basic and Transversal Themes**

High centrality and low density characterize these basic themes, which are significant and highly central to the field of study but must be fully fleshed out (Llanos-Herrera & Merigo, 2019). The following themes fall under this quadrant: article, healthcare personnel wellbeing, humans, and females.

### **3. CONCLUSION**

Our bibliometric review is the first to measure the currently available research on psychological well-being and healthcare workers. We contributed to the existing literature by identifying the most productive contributors (articles, countries, authors, and journals) to the research domain, thereby providing a point of reference for early-age academics, new-age scholars, and industry professionals interested in the domain who wish to go through a brief snapshot of the field. In addition, we arrange the nomological network, or critical thematic clusters and themes showing how psychological well-being may impact the performance of job duties among healthcare professionals in the medical field. The ever-broadening interest in the study of the well-being of healthcare professionals exists to deepen the understanding and comprehension of the application of psychology in the medical industry further. We have identified and curated the opportunities for future research.

#### **3.1 Directions for Future Research**

Based on the keywords found in the thematic knowledge clusters that belong to the significant studies, we chart several research opportunities for future research. First, the usage of psychological Well-being and healthcare workers in the medical industry is an emerging topic, so there is a need for encouragement from research that may expand the field's understanding from myriad perspectives, such as the perspectives of service providers, managers, and staffers. Second, future research can explore (1) the challenges involved in implementing measures related to psychological Well-being in hospital settings and (2) the perception of psychological Well-being and the strategies to improve it should be pliable, supple, and respond to the contextual needs of the healthcare workers (Browne et al., 2023). (3) Third, future studies can explore further the supporting role of leadership for healthcare workers who are under enormous pressure daily as frontline workers and handling patients with resilience (Carter & Turner, 2021). Fourth, future investigations can examine the effects of shared experiences and the role of peer-group support. It observed that many new well-being programs organized by peers sharing their stories resonate with healthcare workers (Sawyer et al., 2022). Despite the critical concepts coming together here, the scope of this study is still somewhat narrow. Therefore, future reviews can provide trending topical information through a chain of bibliometric analysis techniques to the thematic information available in this one to serve as a roadmap for further scholarly work on the subject; future reviews will be able to expand in the field through content analysis of the many concepts, settings, and methods now provided.

## REFERENCES

- [1] Sarfraz, M., Ji, X., Asghar, M., Ivascu, L., & Ozturk, I. (2022). Signifying the relationship between fear of COVID-19, psychological concerns, financial concerns and healthcare employees job performance: a mediated model. *International journal of environmental research and public health*, 19(5), 2657.
- [2] Khan, F. M., & Azam, M. K. (2023). Chatbots in hospitality and tourism: A bibliometric synthesis of evidence. *Journal of the Academy of Business and Emerging Markets*, 3(2), 29-40.
- [3] Ransing R., Adiukwu F., Pereira-Sanchez V., Ramalho R., Orsolini L., Schuh Teixeira A.L., Gonzalez-Diaz J.M., Pinto da Costa M., Soler-Vidal J., Bytyçi D.G., El Hayek S., Larnaout A., Shalbfan M., Syarif Z., Nofal M., Kundadak G.K. Mental health interventions during the COVID-19 pandemic: a conceptual framework by early career psychiatrists. *Asian J. Psychiatry*. 2020:102085. doi: 10.1016/j.ajp.2020.102085. Effects of psychological wellbeing on healthcare workers' job performance amidst COVID-19 fear.
- [4] Holman, E. A., & Grisham, E. L. (2020). When time falls apart: The public health implications of distorted time perception in the age of COVID-19. *Psychological trauma: theory, research, practice, and policy*, 12(S1), S63.
- [5] Spoorthy, M. S., Pratapa, S. K., & Mahant, S. (2020). Mental health problems faced by healthcare workers due to the COVID-19 pandemic—A review. *Asian journal of psychiatry*, 51, 102119.
- [6] Khan, S., Siddique, R., Li, H., Ali, A., Shereen, M. A., Bashir, N., & Xue, M. (2020). Impact of coronavirus outbreak on psychological health. *Journal of global health*, 10(1).
- [7] Machado, B. C., Pinto, E., Silva, M., Veiga, E., Sá, C., Kuhz, S., ... & Correia, M. (2023). Impact of the COVID-19 pandemic on the mental and physical health and overall wellbeing of university students in Portugal. *Plos one*, 18(5), e0285317.
- [8] Spruijt, Ineke, Anne Cronin, Frances Udeorji, Mamoon Nazir, Samaila Shehu, Sebastien Poix, Andre Villanueva et al. "Respected but stigmatized: Healthcare workers caring for COVID-19 patients." *Plos one* 18, no. 7 (2023): e0288609.
- [9] Shouman, A. E., Abou-Elwafa, H. S., & El-Gilany, A. H. Work-related mental health problems: a narrative review. *Occupations*, 29, 15(2023).
- [10] Teoh, K., Singh, J., Medisaukaite, A., & Hassard, J. (2023). Doctors' perceived working conditions, psychological health and patient care: a meta-analysis of longitudinal studies. *Occupational and Environmental Medicine*, 80(2), 61-69.
- [11] Grunfeld, E., Whelan, T. J., Zitzelsberger, L., Willan, A. R., Montesanto, B., & Evans, W. K. (2000). Cancer care workers in Ontario: prevalence of burnout, job stress and job satisfaction. *Cmaj*, 163(2), 166-169.
- [12] Cruz-Benito, J. (2016). Systematic literature review & mapping.
- [13] Lame, G. (2019, July). Systematic literature reviews: An introduction. In *Proceedings of the design society: international conference on engineering design* (Vol. 1, No. 1, pp. 1633-1642). Cambridge University Press.
- [14] Hart, C. (1999). *Doing a Literature Review: Releasing the Social Science Research Imagination* (1st ed.). Sage Publications Ltd.
- [15] Liberati, A., Altman, D. G., Tetzlaff, J., Mulrow, C., Gøtzsche, P. C., Ioannidis, J. P., ... & Moher, D. (2009). The PRISMA statement for reporting systematic reviews and meta-analyses of studies that evaluate health care interventions: explanation and elaboration. *Annals of internal medicine*, 151(4), W-65.
- [16] Moher, D., Shamseer, L., Clarke, M., Ghersi, D., Liberati, A., Petticrew, M., ... & Prisma-P Group. (2015). Preferred reporting items for systematic review and meta-analysis protocols (PRISMA-P) 2015 statement. *Systematic reviews*, 4, 1-9.
- [17] Paul, J., Lim, W. M., O'Cass, A., Hao, A. W., & Bresciani, S. (2021). Scientific procedures and rationales for systematic literature reviews (SPAR-4-SLR). *International Journal of Consumer Studies*, 45(4), O1-O16.
- [18] Paul, J., & Criado, A. R. (2020). The art of writing literature review: What do we know and what do we need to know? *International Business Review*, 29(4), 101717. <https://doi.org/10.1016/j.ibusrev.2020.101717>
- [19] Hanaa S M & Abdul A P 2023. A holistic approach to augmented reality-related research in tourism: through bibliometric analysis. *Journal of Hospitality and Tourism Insights*. <https://doi.org/10.1108/JHTI-08-2022-0369>.
- [20] Hirsch, J. E. (2005). An index to quantify an individual's scientific research output. *Proceedings of the National academy of Sciences*, 102(46), 16569-16572.
- [21] Agarwal, A., Durairajanayagam, D., Tatagari, S., Esteves, S. C., Harlev, A., Henkel, R., ... & Bashiri, A. (2016). Bibliometrics: tracking research impact by selecting the appropriate metrics. *Asian journal of andrology*, 18(2), 296-309.

- [22] Hanaa, S. M., & Abdul, A. P. (2024). A holistic approach to augmented reality-related research in tourism: through bibliometric analysis. *Journal of Hospitality and Tourism Insights*, 7(1), 76-94.
  - [23] Correia, A., Rodrigues, P. M. M., Kozak, M., & Raposo, P. (2024). Determinants of citations in tourism and hospitality studies. *Tourism: An International Interdisciplinary Journal*, 72(3), 393-409.
  - [24] Baas, J., Schotten, M., Plume, A., Côté, G., & Karimi, R. (2020). Scopus as a curated, high-quality bibliometric data source for academic research in quantitative science studies. *Quantitative science studies*, 1(1), 377-386.
  - [25] Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of informetrics*, 11(4), 959-975.
  - [26] Van Eck, N., & Waltman, L. (2010). Software survey: VOSviewer, a computer program for bibliometric mapping. *scientometrics*, 84(2), 523-538.
  - [27] Llanos-Herrera, G. R., & Merigo, J. M. (2019). Overview of brand personality research with bibliometric indicators. *Kybernetes*, 48(3), 546-569.
  - [28] Browne, C., & Tie, Y. C. (2024). Promoting Well-being: A Scoping Review of Strategies Implemented During the COVID-19 Pandemic to Enhance the Well-being of the Nursing Workforce. *International journal of nursing studies advances*, 100177.
  - [29] Carter, M., & Turner, K. M. (2021). Enhancing nurse manager resilience in a pandemic. *Nurse Leader*, 19(6), 622-624.
  - [30] Sawyer, A.T., Harris, S., Green, J.F., Du, Y., Richard, T., Stearnes Robinson, P., Celano, P., Kelly, K., Bailey, A., 2022. Clinical leader series. A virtual mental well-being initiative for nurse leaders during the COVID-19 pandemic and beyond. *The Journal of Nursing Administration* 52 (3), 177–18.
-