

## “Employee Engagement and Its Impact on Well-Being in Allied Healthcare Professions: A Bibliometric Insight”

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### Abstract

Employee engagement and employee well-being have become key constructs in healthcare workforce research, particularly amid mounting work-related stress, burnout, and workforce shortages. Although there is a large body of literature exploring engagement and well-being among nurses and physicians, the scholarly focus on allied health professionals is fragmented. This study performs a bibliometric analysis of research on employee engagement and its effects on well-being in allied healthcare professions, using data extracted from the Dimensions AI database. A corpus of 2501 peer-reviewed publications published between 2005 and 2025 was evaluated by performance indicators and scientometric mapping techniques. Bibliometric tools, namely VOSviewer and Bibliometrix, were used to analyse annual publication trends, influential journals, geographical distribution, keyword co-occurrence and network of collaboration. The results show a strong boost in scholarly activity after 2015, with dominating themes focusing on burnout, job satisfaction, psychological well-being and organisational support. Nevertheless, allied health professionals are an underrepresented occupational group. This study is a contribution to the field in terms of understanding the intellectual architecture of the field, the research lacunae identified and some research directions for the future that will facilitate workforce engagement and well-being in allied health settings.

**Keyword(s):** Employee engagement; Well-being; Allied healthcare professionals; Bibliometric analysis; Dimensions AI

### Introduction

Employee engagement is a positive work-related, fulfilling state of mind characterised by vigour, dedication and absorption (Schaufeli, 2002). Employee well-being, which includes psychological, emotional, and physical health, is increasingly being acknowledged as a strategic organisational outcome (Danna & Griffin, 1999). In healthcare systems, the interaction between engagement and well-being is especially prominent given the emotionally demanding work contexts, high workloads, and increased service pressures.

Allied healthcare professionals (AHPs), including physiotherapists, radiographers, occupational therapists, speech and language therapists and clinical technologists, are critical to patient care delivery. Despite their significance, empirical studies of engagement and well-being among AHPs have attracted relatively less attention than those about nurses and physicians (Buchan, 2019). Existing studies are scattered across healthcare, psychology, and human resource management journals and thus make it difficult to identify the prevailing themes and research gaps.

Bibliometric analysis is a systematic and quantitative method for synthesising vast amounts of literature through patterns in publication, citation structures, and thematic evolution (Donthu, 2021). While previous bibliometric studies have examined employee engagement (Bailey, 2017) and workplace well-being more generally, to date, no study has examined employee engagement and well-being specifically in allied healthcare professions. To fill this void, the current research uses bibliometric methods with Dimensions AI, a powerful research analytics platform, to trace the intellectual landscape of this emerging field.

The shift in traditional workforce management to that of Work Tech enabled human resource management in the context of the Indian healthcare system, which is a paradigm shift in the valorisation and management of allied healthcare providers in the Indian healthcare system. Work Tech can empower and advocate engagement, burnout reduction, workforce resilience, and, as a result, make healthcare delivery more sustainable when properly aligned to policy reform, ethical governance, and capacity-building initiatives.

Nonetheless, it will only succeed, not just based on technological investment, but on the basis of the integrity of the institutions, the willingness of the leaders, and the determination to focus on workforce-centred change.

### **Literature Review**

Employee engagement is another important construct in organisational and healthcare research especially due to its impact on the performance of the workforce, work satisfaction, and well-being. Based on the background research of William A. Kahn (1990), the idea of employee engagement refers to the psychological presence and emotional participation of workers in their occupations.

This concept has since been expanded in subsequent studies, which have attributed engagement to positive organisational outcomes such as higher productivity, lower turnover, and higher well-being.

Engagement research takes the shape of the dominant theoretical lens, which is the Job Demands-Resources (JD-R) model (Demerouti, 2001), which states that engagement is stimulated by job resources (autonomy, support, and feedback) and that an overexertion of job demands leads to strain and burnout. In this context, Wilmar B. Schaufeli. (2002) theorise engagement as a work-specific state that is positive and has the qualities of vigour, dedication, and absorption. This idea of conceptualisation has been extensively incorporated in human resource management (HRM) studies, more so in the healthcare setting, where human resources are faced with increased emotional and physical tasking.

Empirical research shows that the positive relationship between engagement and the well-being of employees is always documented. As an example, Bakker and Demerouti (2008) state that engaged employees are more resilient and have a better ability to address job-related stressors. On the same note, Saks (2006) reveals that perceived organisational support and fairness are essential antecedents of engagement, which in their turn boost psychological well-being. These results support the general HRM views, which highlight the relevance of enabling organisational practices in promoting desirable employee performance.

Allied healthcare professionals- such as physiotherapists, radiographers or lab technicians- encounter unique pressures of increased workload, emotional stress and lack of organisational support. A study by Shuck and Reio (2014) shows that involvement in such professions is strongly related to psychological well-being and job satisfaction. Similarly, as pointed out by Saks (2006), organisational perceived support and fairness significantly affect engagement levels.

Recent empirical studies have also explored the value of engagement in the reduction of burnout among health workers. To illustrate, Maslach and Leiter (2016) argue that engagement acts as a buffer to burnout, especially in jobs that are emotionally taxing. This statement is especially applicable within the framework of modern global healthcare issues, such as the COVID-19 pandemic, which has increased the level of stress among medical workers (Lai, 2020).

In addition, involvement has also been associated with better patient outcomes and quality care. There is empirical evidence that engaged healthcare workers have a higher likelihood of demonstrating high levels of empathy, communication, and commitment, after which patient satisfaction will improve (Harter et al., 2002). This kind of relationship is especially pertinent to the context of allied healthcare settings, where these professionals make their own supportive but essential contribution to patient care delivery.

Regarding employee wellness, engagement has a positive impact on psychological and physical health. Studies prove that the levels of stress reported by the engaged employees are lower, their resilience is higher, and their overall life satisfaction is higher (Danna and Griffin, 1999). In addition, organisational interventions that can help enhance engagement include leadership support, professional development and work-life balance initiatives, which have been found to improve employee well-being (Albrecht, 2010).

Although the field of scholarly literature is growing larger, there is a lack of research studies that explicitly address allied healthcare professionals. The current research has been majorly working on physicians and nurses, hence creating a gap in understanding the dynamics of engagement between other roles in the healthcare setting. In addition, the growing complexity of healthcare systems requires an in-depth study of the engagement and well-being of diverse professional groups.

Recently, bibliometric analyses have been used to outline the intellectual architecture of employee engagement research. These studies provide a perspective on the trends of publications, pioneering writers, and emerging topics in the field (Donthu et al., 2021). However, it can be said that there is a deficit in bibliometric research that focuses directly on the intersection between employee engagement and well-being in allied healthcare professions. Thus, this research is aimed at addressing this gap to perform a detailed bibliometric review using the Dimensions database. The analysis of the publication

trends, groupings and changes in themes contributes to broadening our perspective of the research landscape and defining future directions of academic research.

### **Research Objectives**

The research will be conducted to discuss the following:

1. To examine the trends in publications and the growth patterns of the research on employee engagement and well-being in allied healthcare professions.
2. To determine the most effective journals and publishing sources in the field.
3. To examine the spatial distribution of the research output.
4. To identify the most cited and influential research that influences the field.
5. To draw out the new research themes and future avenues of potential research.

### **Methodology**

#### **Research Design**

This study adopts a bibliometric research design, which involves quantitative analysis of scientific publications to examine research productivity, citation impact, and knowledge structures within a specific field.

Bibliometric analysis is widely used to evaluate the development of academic disciplines and to identify influential research contributions. (Donthu, 2021).

#### **Data Source**

The data used in this study were obtained from Dimensions AI, which is a broad academic database that includes research papers, references, grants, patents, and policy reports. Dimensions is a comprehensive source of peer-reviewed literature in an extremely wide range of disciplines, which makes it a suitable source of multidisciplinary bibliometric studies.

#### **Search Strategy**

The data set was compiled based on the criteria of selection as follows:

Search topic: Engaging Employees and their Well-Being Effect in Allied Health Care jobs.

Filters applied:

- Document type: Article
- Publication years: 2005–2025
- Database: Dimensions AI

The search had 2,500 peer-reviewed articles, which formed the corpus of the bibliometric analysis.

#### **Bibliometric Indicators**

Several bibliometric indicators were used during the analysis:

- Annual publication growth
- Leading journals
- Distribution of research in geography.

Science Mapping Indicators:

- The Network of Collaboration between the Author
- Country Collaboration Networks
- Citation Networks
- Co-Occurrence Analysis of Keywords.
- Analysis of Thematic Evolution.

The indicators offer information on how the field is developing, how productive and impactful research is.

Results

Annual Publication Trends

The review shows that there was a steady increase in the production of research over the period 2005-2025, but a significant upsurge is observed after 2018.

At the beginning of the time frame (2005-2010), the quantity of publications was insignificant, which signified the immature phase of employee engagement learning in the healthcare system. However, since 2015, the scholarly activity has shown a consistent increase, and the most significant rise took place after 2020.

This increase could be explained by an increased focus on the healthcare workforce's well-being, especially in the COVID-19 pandemic, when the focus on the psychological issues faced by healthcare professionals was brought to the forefront.

The highest point of publication volume was achieved in 2025 (455 articles) due to the growing academic interest in this field.

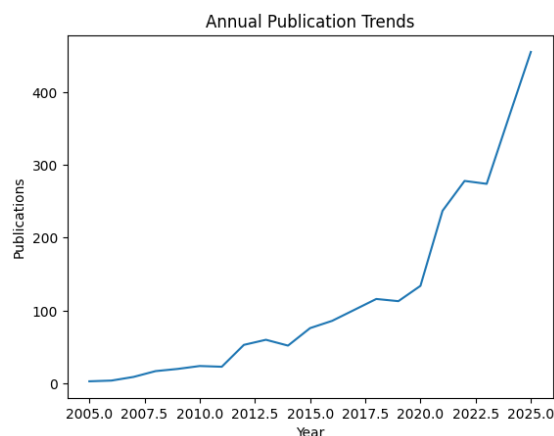


Figure 1. Annual Publication Trends

Table 1. Annual Scientific Production

SNO.	Year	Publication
1.	2005	3
2.	2006	4
3.	2007	9
4.	2008	17
5.	2009	20
6.	2010	24
7.	2011	23
8.	2012	53
9.	2013	60
10.	2014	52
11.	2015	76
12.	2016	86
13.	2017	101
14.	2018	116
15.	2019	113

16.	2020	134
17.	2021	237
18.	2022	278
19.	2023	274
20.	2024	365
21.	2025	455

**Leading Journals**

The most active journals featuring research on the topic of employee engagement and well-being include:

Table 2. Top Journals

Rank	Journal	Publications
1.	BMC Health Services Research	73
2.	International Journal of Environmental Research and Public Health	70
3.	Journal of Advanced Nursing	48
4.	Journal of Nursing Management	41
5.	BMJ Open	41
6.	Healthcare	38
7.	PLOS ONE	36
8.	Journal of Health Organisation and Management	36
9.	Cochrane Database of Systematic Reviews	35
10.	BMC Nursing	32

The discussed journals focus largely on the research in the area of health services, leadership in nursing, public health and health care administration.

**Geographic Distribution of Research**

The review has shown that the outputs of research are clustered in high-income nations.

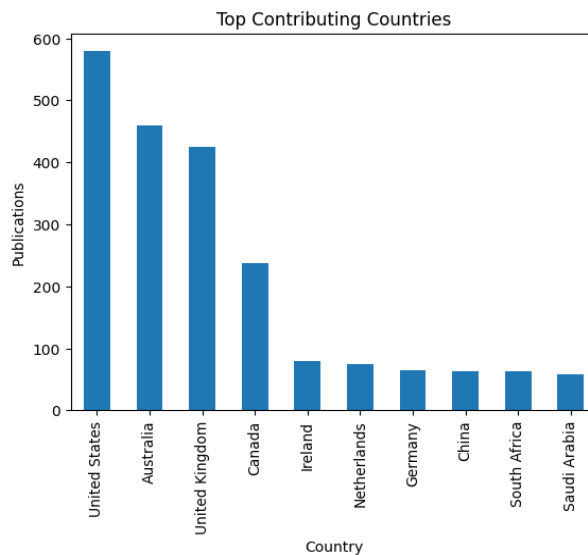


Figure 2. Top Contributing Countries

The leading countries of contributions are:

Table 3. Top Countries

Sno.	Country	Publications
1.	United States	579
2.	Australia	460
3.	United Kingdoms	425
4.	Canada	238
5.	Ireland	79
6.	Netherlands	75
7.	Germany	64
8.	China	63
9.	South Africa	63
10.	Saudi Arabia	58

The superiority of the developed nations could also indicate better research-funding structures and well-established research institutions in health care.

Nevertheless, the growing body of studies in countries such as South Africa and China indicates that global attention to the well-being of the healthcare workforce is increasing.

#### **Author Collaboration Network**

A network of authors built with VOSviewer reveals co-authorship trends among authors working on the dataset. Co-authoring analysis is one of the most commonly used bibliometric techniques for identifying collaborative patterns, established researchers, and changing knowledge networks in the field (Donthu, 2021; Van Eck and Waltman, 2010). The relationship between nodes in the current visualisation, i.e., one author per node, and co-authored edges, i.e., author-author relationships. The size of the nodes is relative to the amount of output or number of publications that the author has made in the dataset, and different colours are used to identify groups of closely working authors.

Some authors are isolated nodes of the created network, including De Bruin, Aoife; Campbell, Pauline; Willis, Karen; Blake, Holly; and Maben, Jill, and the idea is that they have not made joint contributions or have not worked in collaboration with other theorists represented in the dataset considered. The existence of these disconnected nodes is usually linked to individual authors, who publish independently or work with researchers outside the boundaries of the chosen dataset (Donthu, 2021). Taken together, the research domain, as indicated by the co-authorship network, is characterised by disjointed collaborative forms, namely, relatively small research groups and limited intergroup communication. The absence of large interrelated clusters speaks to the possibilities of enhancing interdisciplinary and inter-institutional cooperation. The strengthening of these collaboration networks can support the development of a stronger integration of knowledge, the increase in the productivity of research, and the formation of more unified scholarly communities in the field.

Bibliometrically, it is most important to identify the trends of collaboration since strong co-authorship networks often relate to high impact of research and an increase in knowledge diffusion (Glanzel and Schubert, 2004). Therefore, the development of larger intellectual partnerships can enhance the intellectual landscape and international visibility of the research field.

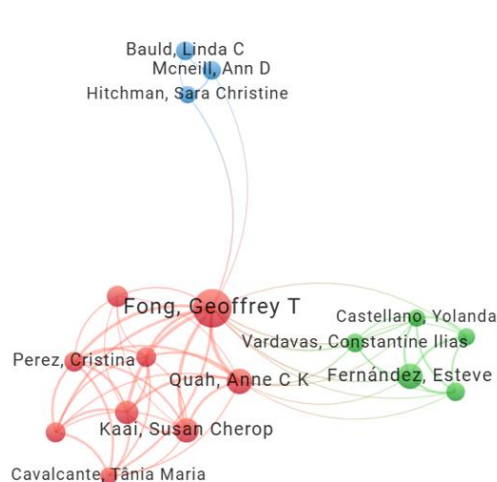


Figure 3. Author Collaboration Network Based on Co-Authorship Analysis (VOSviewer)

### Country Collaboration Network

The country collaboration network created by the VOSviewer is used as a visualisation of the international research collaboration existing in the dataset. In bibliometric analysis, country collaboration, often collectively known as co-authorship by country, reveals the degree of the world entering into knowledge sharing and the countries having a substantial impact on the development of a scientific discipline (Donthu, 2021; Van Eck & Waltman, 2010). In the resulting network map, a node refers to a particular country, and the relationship between the nodes represents collaborative research relationships that are formed by co-authored publications. The size of each node represents the degree of contribution in the form of publications made by that country, and the colouring of nodes represents the groups of countries that often cooperate.

This network representation shows that the United States and Australia are central and well-connected nodes, which support the leading role in international cooperation in research. Their comparative scale and concentration of linkages denote the eminence of these nodes, which means that they play a significant role in the output of publications and have strong collaborative relationships in various regions. Their centrality also implies that they are important nodes that mediate knowledge sharing on a global scale in the research field.

The discussion shows that several different clusters of collaboration exist. A prominent group labelled green includes China, Singapore, Malaysia, Thailand, the Philippines, Taiwan and Iran and represents a strong cooperation between the Asian-Pacific countries. In this group, China will appear as a more crucial player, building relationships with other actors in the region and with international research giants such as the United States and Australia. These interrelations are a good example of the ever-growing involvement of Asian states in global scientific study and their increasing integration into the universal educational networks.

Most of the European countries, such as Italy, Germany, Portugal, Belgium, France, Poland, Slovenia, Turkey, and Latvia, are found in the red cluster. These nations demonstrate a high degree of interlinkages, which means that there is inter-regional cooperation in Europe. These forms of collaboration are often supported by local research systems and funding schemes that encourage international cooperation (Glanzel & Schubert, 2004).

The other cluster, which includes Canada, Switzerland, Japan and Spain, acts as a middle intermediary connecting different regional networks. In the specific case of Canada, the country stands out as a centralised country, connecting North American, European, and Asia-Pacific studies. The reason why bridging nodes are necessary is that they contribute to the dissemination of knowledge among otherwise divided research communities.

The yellow cluster, containing countries such as Saudi Arabia, the United Arab Emirates, Jordan, and Qatar, represents collaborations within the Middle East region. These countries demonstrate increasing participation in international research networks, often collaborating with Western and Asia-Pacific partners. The growing presence of Middle Eastern countries reflects expanding research investment and international partnerships in the region.

Additionally, several countries, such as Finland, Norway, Cyprus, and Greece, form smaller clusters that maintain selective collaboration ties with larger European networks. These peripheral yet connected nodes indicate participation in the global research ecosystem, although with relatively fewer publications compared to central countries.

On the whole, the country collaboration network suggests that the research sphere is very internationalised with strong collaboration in North America, Europe, Asia-Pacific, and the Middle East. The key functions of the United States and Australia highlight the significance of the United States and Australia as the world's knowledge centres, whereas regional clusters show how the location proximity and the institutional association influence patterns of collaboration. International partnerships are vital to research impact improvement, dissemination, and interdisciplinary innovation in a discipline (Donthu, 2021).

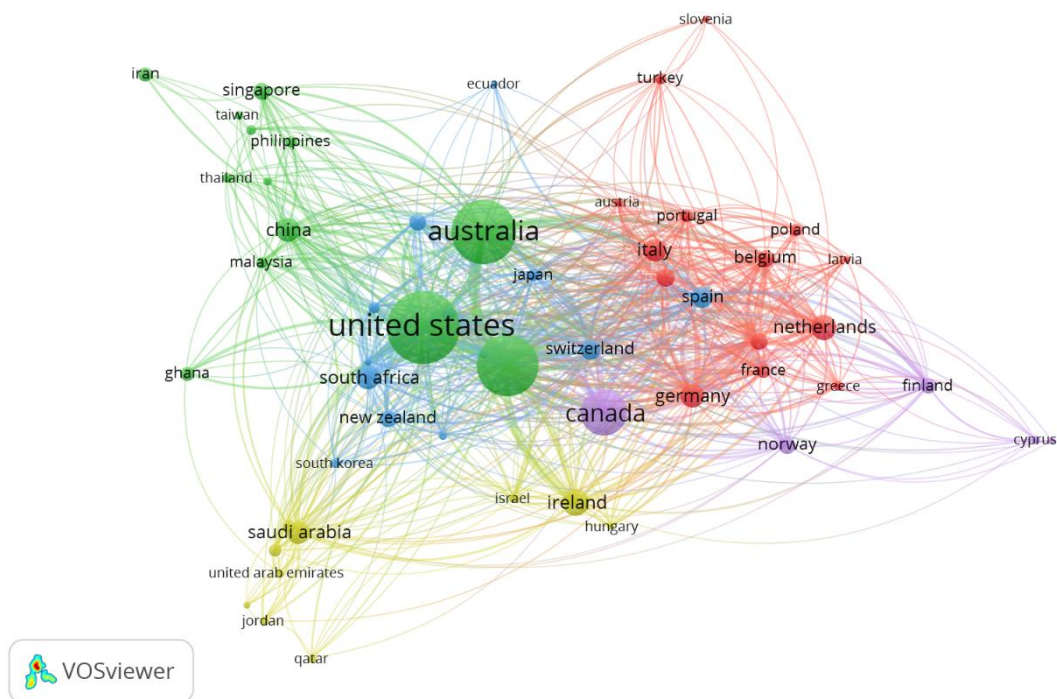


Fig 4. International Country Collaboration Network Based on Co-Authorship Analysis (VOSviewer)

### Citation Network Analysis

The citation network analysis provides an insight into the intellectual architecture and influential publications that cut across the research field. Citation analysis is a common bibliometric approach that determines the most influential articles and sheds light on the history of knowledge over time with references to scholarly articles (Donthu, 2021). A visualisation of a citation network produced with VOSviewer represents a citation relationship between publications and has each node representing a cited document, with the citation relationship between publications being indicated by the links between the nodes representing the publication. The node size is reflective of the citation effects of the associated document, and the distance between nodes is reflective of the relationships of citation.

The network map recognises some landmark articles that form the intellectual centre of the field. The most salient node is Massimo F. Piepoli (2016), which highlights one of the most cited and central contributions that have a significant impact on the following research.

The eminence of this publication can be emphasised by the fact that it is a decisive document in determining the theoretical discussion and guiding empirical research in the subject.

Similarly, other significant publications (Shanafelt, 2016, and Meara, 2015) also appeared as major nodes of the network, which is indicative of their high citation rates and the impact they have on other streams of research.

Several other classic publications add to the foundation of the knowledge base.

To illustrate, the works by Archer (2012), Stanley (2015), and Lasinger (2009) are positioned near the centroid of the network, which suggests that the works have strong citation connections with other articles. Such publications are ostensibly providing indefeasible theoretical frameworks, methodological paradigms, or empirical information that have been broadly cited in future studies. Their focal positions signify an intermediary role between unequal thematised groups in the literature.

There is also a range of new and modern studies that are reflected in the network, and some of them are Gibbons (2021), Finstad (2021), and Neil-Sztramko (2021). They are published further to the edges of the network with smaller node sizes and represent more recent work that are only starting to gain citations but are not yet having the influence of older works in the field. These peripheral nodes are common in citation networks and usually indicate the emergence of new research paths or a new thematic thread in the literature.

Moreover, the fact that there are several clusters of studies that are interrelated leads to the assumption that the research area is divided into a number of thematic subareas. These clusters are collections of publications that reference each other all the time and discuss the same research issues or conceptual models. To illustrate, certain clusters seem to be interested in the healthcare workforce-related problems, burnout, leadership and health system problems, whereas others are concerned with the organisational and policy-related problems of healthcare management.

The citation network analysis revealed that the research area has an established intellectual framework with some seminal publications and new areas of research. Such highly cited literature sources as Piepoli (2016), Shanafelt (2016), and Meara (2015) can be viewed as important intellectual foundations informing the future work of other researchers. The fact that newer publications are also present in the network also indicates that the field is in a state of development, gains more scholarly interest and allows interdisciplinary input.

These citation relationships are necessary to find out the most powerful studies, key knowledge groups, and new research directions, thus helping scholars and policy-makers to understand the developmental path of the research area (Van Eck and Waltman, 2010; Donthu, 2021).

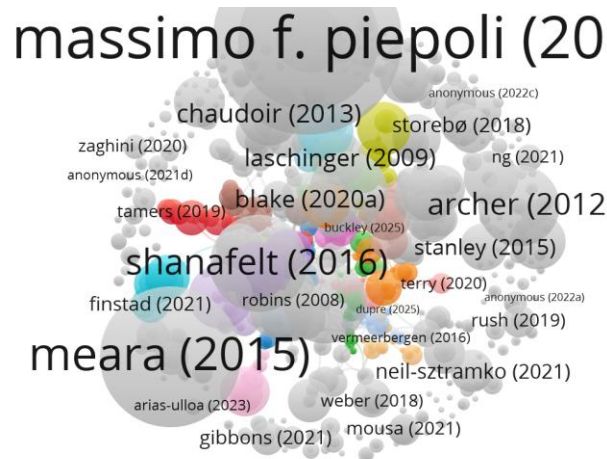


Figure 5. Citation Network of Influential Publications (VOSviewer Visualisation)

### Keyword Co-Occurrence Network Analysis

The keyword co-occurrence network constructed with VOSviewer provides insight into the conceptual framework and the key research topics in the literature on employee engagement. Keywords co-occurrence analysis is a common tool in bibliometric research to explain the interrelationships among research topics, in which the number of times a keyword co-occurs in corpora is investigated (Donthu, 2021). In the visualisation, nodes represent keywords, the size of the node is proportional to its frequency of occurrence and the relationships between the words or the co-occurring words are represented as links. Clusters of several keywords that occur frequently are delineated by the colors hence showing specific areas of thematic research (Van Eck and Waltman, 2010).

The network map clearly marks the most salient and core term as employee engagement, which implies that it is the core concept around which the research field will be structured. The existence of strong relationships between employee engagement and the corresponding terms job satisfaction, leadership, organisational performance, and turnover intention

supports the interdisciplinary nature of the literature and underlines the central role played by engagement in organisational research.

### Major Thematic Clusters

#### Human Resource Management and Organisational Performance (Red Cluster)

One of the main clusters is devoted to human resource management (HRM) practice and its role in employee engagement and organisational performance. The keywords under this cluster are human resource management, human resource development, HRM practices, burnout, and turnover intention. The high links between employee engagement and HRM practices also imply that engagement is commonly researched as a consequence of strategic HR practices and organisational support systems.

This result is used in agreement with the previous studies, which state that the HRM practices that have a strong impact on employee engagement and retention are training, career development and performance management (Saks, 2006). Besides, the fact that burnout and turnover intention are present in the cluster implies that the engagement research frequently considers methods to reduce the adverse workplace effects through HR methods.

##### 1. Leadership, Organisational Culture, and Work Environment (Green Cluster)

The other significant cluster is the one that refers to the context of the leadership and organisation and includes words like leadership, transformational leadership, organisational culture, work-family balance, job resources, and performance. These words are closely interconnected, which shows that the styles of leadership and organisational environment are crucial factors that encourage employees to be engaged.

Some of the topics undertaken by research in the context of this theme are the role of transformational leadership and supportive work environments in increasing employee motivation, commitment, and productivity. The past research indicates that leadership behaviours play a key role in employee attitudes, as well as engagement rates, by providing conducive organisational cultures (Bakker and Demerouti, 2008).

##### 2. Job Satisfaction, Motivation, and Organisational Performance (Turquoise Cluster)

The third cluster is used to define the interconnection between job satisfaction, motivation and organisational performance. The keywords that are conceptually related, such as job satisfaction, motivation, organisational performance, and human resource development, have strong interrelationships. This slice predicts psychological and motivational aspects of employee engagement. The fact that job satisfaction and employee engagement happen at the same time denotes that scholars tend to explore how positive work experiences influence the affective attachment of employees towards their organisations. These results are in line with the Job Demands-Resources (JD-R) model that indicates that job resources such as support, autonomy, and development opportunities enhance engagement and performance (Bakker and Demerouti, 2008).

##### 3. Work Engagement, Corporate Social Responsibility, and Organisational Behaviour (Purple Cluster)

Another group is focused on work engagement and its effects on organisational behaviour, where some of the key terms are work engagement, corporate social responsibility (CSR), organisational engagement, and job engagement. The fact that CSR was considered as a part of this cluster is indicative of the growing academic curiosity about defining the impact of socially responsible organisational behaviour on the attitudes and engagement levels of employees. Empirical evidence related to this theme shows that organisations which can be described as socially responsible are, in turn, likely to develop a powerful affective relationship with employees, thus facilitating greater engagement and organisational commitment (Glavas and Kelley, 2014).

##### 4. Employee Performance and Organisational Citizenship Behaviour (Blue Cluster)

Blue cluster represents the studies focused on the performance of the employees and organisational citizenship behaviour (OCB). The thematic areas of focus of this group include employee performance, OCB, affective commitment, and COVID-19. The interdependence between engagement and performance results highlights the inclination of engagement to be investigated as a predictive variable of productivity and discretionary work behaviours.

The occurrence of COVID-19 in this cluster presupposes that recent studies have reviewed the role of employee engagement on work performance and organisational commitment during times of crisis and remote working.

### 5. Social Exchange Theory and Psychological Drivers (Yellow Cluster)

One of the small but significant groups is oriented to social exchange theory, self-efficacy, employer branding, and job performance. A theoretical framework that is often used in explaining employee engagement is social exchange theory, according to which employees give back what the organisation has supported, and the higher the level of engagement and performance, the higher the returns (Cropanzano and Mitchell, 2005).

This group is an indication that researchers are increasingly taking the psychological and relational approach in explaining how organisational supportive systems influence individual employee attitudes and behaviours.

### Overall Intellectual Structure

The analysis of keyword co-occurrences shows that the literature on employee engagement is multidimensional by its nature since it incorporates views of the human resource management, organisational behaviour, leadership research and psychology. The salient status of employee engagement in the network supports the fact that it is a central conceptual locus that incorporates a wide range of research themes, such as leadership, job satisfaction, performance, and organisational commitment.

Besides this, the appearance of such terms as COVID-19, employer branding, and corporate social responsibility talks about the change towards the broader discussion of the sustainability of organisations, well-being of employees, and socially responsible management practices.

Altogether, the network visualisation outlines a developed field of research that is being characterised by intertwined themes in which employee engagement is considered the core construct that connects organisational practices with employee attitudes and performance outcomes.

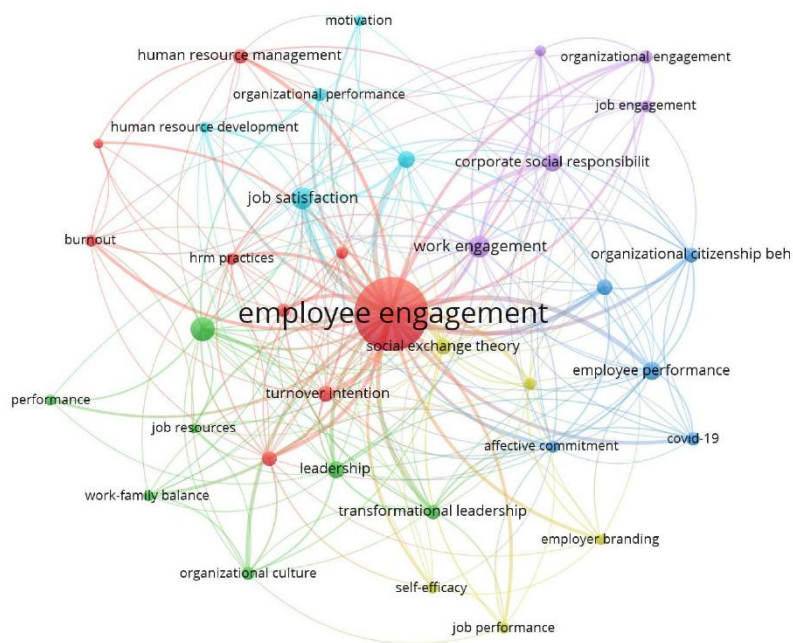


Fig 7. Keyword Co-Occurrence Network Analysis (Vos Viewer)

### Thematic Map Analysis (Motor Themes, Basic Themes, Emerging Themes, and Niche Themes)

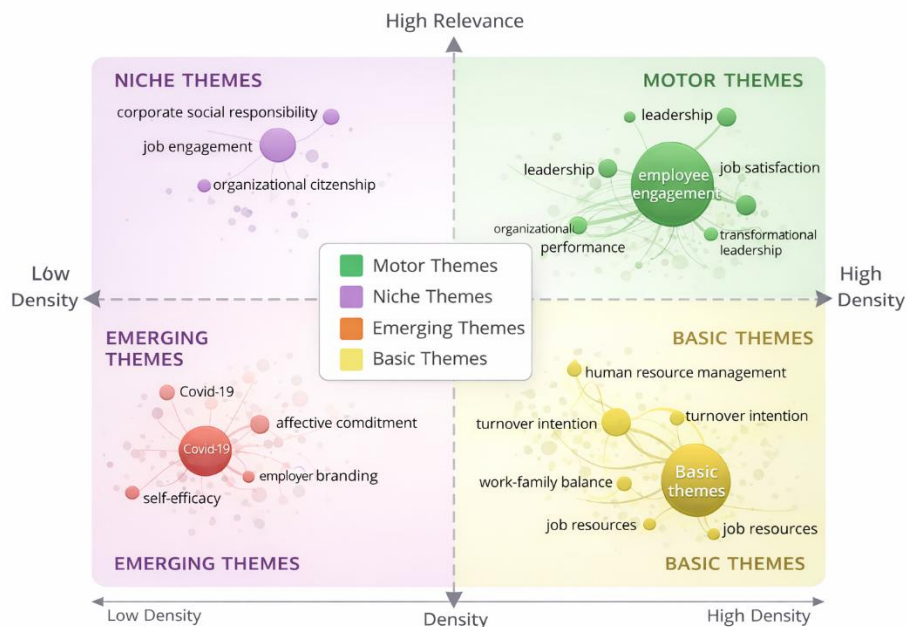


Fig 8. Thematic Map

The analysis of keyword co-occurrences shows that the literature on employee engagement is multidimensional by its nature since it incorporates views of the human resource management, organisational behaviour, leadership research and psychology. The salient status of employee engagement in the network supports the fact that it is a central conceptual locus that incorporates a wide range of research themes, such as leadership, job satisfaction, performance, and organisational commitment. Besides this, the appearance of such terms as COVID-19, employer branding, and corporate social responsibility tells about the change towards the broader discussion of the sustainability of organisations, well-being of employees, and socially responsible management practices.

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**Motor Themes (High Centrality – High Density)**

The concept of motor themes is a highly developed and highly important subject that stimulates the progress of the research sphere. These themes are conceptually mature, and they have strong interrelationships with other fields of investigation.

The keywords that stand out in the thematic map include:

- Employee engagement
- Leadership
- Job satisfaction
- Transformational leadership
- Organisational performance

The fact that employee engagement is placed in the centre of the list is an indication that it is the theoretical element that supports the domain. Close correlations of engagement and leadership variables presuppose that leadership practice is a central process of increasing employee motivation, productivity, and organisational performance. This correlation is supported by empirical data, which states that leadership styles create a rather strong impact on the level of engagement of employees and their performance at the workplace (Bakker and Demerouti, 2008; Saks, 2006).

These themes are considered fundamental drivers of the field, and the potential research will tend to increase the number of interconnected dynamics.

### **Basic Themes (High Centrality – Low Density)**

Basic themes are the major themes that are very relevant to the field but are poorly developed. These themes are the conceptual framework of the field of research.

The keywords that can be found in this quadrant are:

- Human resource management
- Turnover intention
- Job resources
- Work-family balance

These are widely explored themes, but they tend to be auxiliary constructions to explain the outcomes of employee engagement. The impact of HR practice on engagement and the reverse effect on turnover intention and employee retention is often studied in empirical research.

The fact that the job resources and balance are present will indicate the role of the Job Demands-Resources (JD-R) model, which suggests that employees can cope with job demands because of job resources and thus increase the level of engagement (Bakker and Demerouti, 2008).

Even though these themes are fundamental constructs in the research field, they should be further integrated with theories and investigated through empirically sound research studies to evolve into more solid research domains.

### **Niche Themes (Low Centrality – High Density)**

Niche themes are specialised subjects that have a high level of internal development but little integration with the broader field of research.

The thematic map outlines the important terms, such as Corporate Social Responsibility (CSR), Job Engagement, and Organisational Citizenship Behavior, which fill the niche themes quadrant.

These themes outline research streams that are more focused on organisational or behavioural aspects of employee engagement. As an illustration, research studies concerning CSR explore the effect of employees' perceptions of socially responsible organisational practices on engagement and commitment.

Although these themes are well developed in their respective research setting, there remains a relative isolation of these themes from the wider literature on engagement.

### **Emerging or Declining Themes (Low Centrality – Low Density)**

Emerging themes refer to the new or immature areas of research that lack strong interrelations with other areas of topicality in the field.

The keywords that were found in this quadrant are:

- COVID-19
- Self-efficacy
- Employer branding
- Affective commitment

COVID -19 is an indicator of a comparably new research direction exploring the influence of crises in the world on employee engagement, remote working dynamics, and organisational resilience. Similarly, employer branding and self-efficacy represent the changing psychological and strategic prism that can gain greater significance as organisations are increasingly focusing on talent acquisition and staff growth. These topics indicate future research directions, especially in relation to work resilience, the health of employees, and digitalisation.

### **Thematic Map Interpretation**

It is important to recognise that the overall interpretation of the thematic map relies on the specific example and the characteristics of the research questions (Creswell, 2003). It should be noted that the general interpretation of the thematic map depends on the concrete example and the traits of the research questions (Creswell, 2003). According to the thematic map, the field of employee engagement research is a well-established and multidisciplinary one, incorporating the ideas of human resource management, organisational behaviour, psychology, and leadership research.

The analysis shows that:

The field (motor themes) is driven mainly by leadership and job satisfaction.

The construction of the HRM practices and turnover-related issues are the basic constructs (basic themes).

CSR and organisational citizenship behaviour are niche topics.

The areas of research that are emerging include COVID-19, employer branding and self-efficacy.

Generally, the thematic organisation is an indication that the literature is still developing into incorporating psychological, organisational, and strategic insights in employee engagement.

### **Thematic Evolution Analysis (2005–2015 vs. 2016–2025)**

The thematic evolution analysis clarifies how the research themes have been developed and changed with the passage of time in the literature on employee engagement. Using the publications obtained in the Dimensions database, the research sphere was divided into two-time groups, namely, the period of 2005-2015, which is known as the foundational period and the period of 2016-2025, which is referred to as the period of expansion and diversification. The thematic evolution diagram illustrates how the previous research constructions have been transformed over the years to be more advanced and specialised. In scholarly literature, the thematic evolution analysis can assist in recognising the structure of knowledge development, as well as the formation of new research directions in a field (Cobo, 2011; Donthu, 2021).

### **Early Development Phase (2005-2015)**

In the 2005–2015-time frame, a scientific interest in the study of employee engagement was largely concentrated on conceptual underpinnings of organisational and human resource management. Thematic clusters found at this point are:

- Human Resource Management
- Job Satisfaction
- Corporate Social Responsibility.
- Work Engagement

The work engagement within such thematic areas has become a critical construct that bridges human resource management practices and employee attitude and performance outcomes. The studies that were undertaken during this period were mostly focused on explaining the antecedents of engagement, including human resource practices, leadership support, and organisational culture.

The strong connection between work engagement and occupational satisfaction highlights a long-standing academic curiosity about the explanation of the effects of positive contextualised workplace experiences on employee motivation and productivity. Empirical studies always follow the engagement theories at the foundation, which means that when job satisfaction is high, then the probability of employees being more engaged and more committed to the organisation is high (Saks, 2006).

It was also at the same time that corporate social responsibility (CSR) became a new thematic interest of the epoch. Research studies conducted in this area explored how the perception of socially responsible organisational practices by the employees moderates the engagement and commitment to the organisation. However, during this time, CSR was relatively marginal compared to other research streams with human resource management and engagement-based outcomes as their central focus.

### **Expansion and Diversification (2016-2025) Phase.**

The second period (2016-2025) is characterised by the strong broadening of research themes and a significant increase in topics of the employee-engagement literature. Thematic analysis demonstrates that the concept of employee engagement has become the main one of the research networks, and it has replaced the previous focus on work engagement as the most popular theme.

Some of the new and widened themes have emerged during this stage, and they include:

- Leadership
- Organisational Citizenship Behavior.
- Self-efficacy
- COVID-19

- Job Satisfaction (extended point of view)

The shift to employee engagement implies the conceptual transformation to the wider organisational views, as it incorporates both psychological and managerial and strategic facets of engagement.

**Core Research Themes Development.**

Thematic evolution analysis outlines various salient conceptual shifts that cut across the two periods of time.

Sno.	Early Themes (2005-2015)	Evolved Themes (2016-2025)
1.	Occupational Satisfaction	Employee Engagement.
2.	Work Stress	Psychological Well-Being.
3.	Burnout	Resilience
4.	Organizational Support	Organisational commitment.
5.	Healthcare Workforce	Healthcare Leadership.

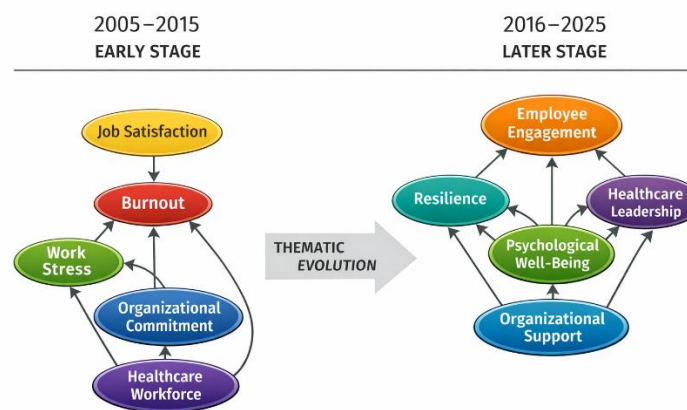


Fig 9. Thematic Map Evolution

**Discussion**

This bibliometric investigation probed the academic landscape of employee engagement and its intersection with well-being in the healthcare-related fields. The empirical data points to the magnitude of increasing academic publications between the years 2005 and 2025, indicating the growing importance of employee engagement as a platform for improving the workforce sustainability and health care delivery quality.

The co-occurrence mapping of keywords revealed some major clusters of interest, including employee engagement in relation to organisational performance, burnout in relation to psychological well-being, leadership and organisational support, and nascent themes that refer to digital health modalities and resilience. All these clusters lead to an implication that employee engagement plays a central role in enhancing occupational satisfaction, organisational commitment, and holistic well-being among health care practitioners (Baruah, 2023; Tyagi, 2024).

The thematic strategic cartography revealed employee engagement, job satisfaction, and workplace well-being as motor themes, which drive the progress of the research field. On the other hand, the themes of leadership and organisational culture became the starting point underlying engagement-oriented scholarship. New themes (job crafting, psychological capital, and digital health technologies) promise to change research interests in the context of the health care workforce (Bhopal and Devi, 2025).

Thematic evolution analysis also delimited a time change in research focus. The earlier research (2005-2015) predicted job stress, burnout, and organisational misfortunes, but the more recent ones (2016-2025) lean towards positive organisational

behavior, resilience, and psychological welfare. This direction is part of a larger shift to the development of positive working environments and the promotion of sustainable workforce growth in health care organisations (Negi, 2025).

Overall, the facts highlight an increasing recognition of employee engagement as a key factor in the well-being of employees and the performance of a healthcare organisation.

### **Implications for Future Research**

The results of this bibliometric review provide several relevant guidelines of what to do in future studies on employee engagement and well-being in the context of allied health professions.

To begin with, future research ought to extend the empirical emphasis to the other mainstream members of physicians and nurses. Though currently this professional group predominates the available literature, allied health clinicians (physiotherapists, radiographers, pharmacists, laboratory technologists, and occupational therapists) are significantly underrepresented in engagement scholarship. This explanation is necessarily needed to explain the unique occupational settings and stress factors inherent in these roles in order to come up with holistic workforce engagement models. (Tyagi, 2024; Chandrakumar & Arumugam, 2024)

Second, longitudinal and intervention-based studies should be covered in future studies. The available literature utilizes majorly cross-sectional approaches, thus limiting the ability to draw conclusions on causal links between employee engagement and outcomes of employee well-being. The longitudinal research designs would provide a deeper understanding of the engagement trend and how the organisational interventions would adjust the well-being of the workforce. (Vintila, 2023; Baruah., 2023).

Third, an urgent need to put an even stronger emphasis on organisational and leadership factors that define the levels of engagement among employees in healthcare facilities exists. The thematic mapping analysis provided a set of themes, such as leadership, organisational support, and workplace culture, as central themes. Future research should aim at exploring the relationship between leadership styles, managerial practices, and institutional policies and their effect on employee engagement and psychological well-being in different healthcare settings. (Bhopal & Devi, 2025)

Fourth, the rising trend of digital health and technological change is a timely field to be investigated. The use of telemedicine, electronic health records and artificial intelligence has transformed the healthcare working environment significantly. The question that should be investigated is how digitalisation influences employee engagement, work-related stress, and work-related satisfaction in the healthcare workforce.

Fifth, future studies should use cross-cultural and comparative designs to examine differences in engagement and well-being among disparate systems of healthcare. In bibliometric reviews, it is evident that most of the studies are arguably of the developed fields, especially in the United States and the United Kingdom. Increasing the investigative areas in the developing regions would provide a more comprehensive understanding of the workforce engagement in different heterogeneous healthcare contexts (Negi, 2025).

Lastly, researchers are encouraged to use mixed-method and longitudinal research designs to better explain the changing interaction between employee engagement and well-being over time. Even though bibliometric analyses can provide useful insights into current research trends, longitudinal empirical studies can provide a deeper understanding of causation and long-term effects on organisations.

All in all, the research in the future should go beyond mere description and focus on the development of strong theoretical paradigms and practical interventions that will both increase employee engagement and enhance the well-being of healthcare professionals.

### **Limitations of the Study**

Despite the useful information that the study can provide to the research world of employee engagement and well-being in allied health professions, several limitations are worth mentioning.

To begin with, the bibliometric analysis was limited to the data that was retrieved only from the Dimensions AI database. Even though Dimensions provides plenty of coverage of academic publications, relevant research that is listed in other databases, e.g. Scopus, Web of Science or PubMed, might not have been included in the dataset. Future studies may thus include the use of a variety of data to provide a more comprehensive study of the available literature.

Second, the research relied on bibliometric measures such as the number of publications, citation analysis, and key co-occurrence. Such measures are mainly intended to capture quantitative features of research output; although such measures

can provide useful information on academic patterns and intellectual frameworks, they do not measure the qualitative content or methodological quality of particular research.

Third, the review was limited to the English-language publications, which might have excluded the relevant studies published in other languages. Consequently, the results might fail to fully reflect the world body of contributions in the research made in the non-English speaking world.

Fourth, author-supplied keywords, as well as ancillary metadata, were thematically analysed and used to construct network visualizations as these may vary between publications due to different kernel names used by authors. Such a methodological limitation can also have an impact on the definition of thematic clusters and the identification of emergent research trends.

Lastly, bibliometric analysis reflects the trend of the academic work, not the real process of the engagement practices in the healthcare organisations. To this end, further empirical studies are justified to determine the extent to which insights of the theoretical dimensions found in the literature are translated into practical policies that contribute to employee involvement and well-being in the healthcare settings.

### **Conclusion**

This paper provides a bibliometric presentation of the literature on employee engagement and its influence on well-being in allied medical professions, relying on the Dimensions database. The analysis of publication patterns, co-authorship, keyword relationships, and patterns of thematic evolution offers a systematic picture of intellectual organisation and the development history of this field of research.

The results reveal that there was a significant rise in academic literature during the last twenty years, which points to the increasing importance of employee involvement in healthcare institutions. The results of bibliometrics show that the area is very interdisciplinary, including the knowledge of organisational psychology, healthcare management, human resource management, and occupational health.

The thematic mapping and the keyword co-occurrence analysis revealed several main themes of study, among which, there were the core ones, such as employee engagement, job satisfaction, burnout, leadership, and workplace well-being. These themes highlight the key role of engagement as one of the most effective means to improve the individual well-being as well as the organisational performance. Moreover, the analysis of the thematic evolution shows that the interest of research in the past has been on the initial debates of job stress and burnout, whereas in recent years, it has shifted towards the studies on positive organisational behaviour, resilience, and psychological well-being.

The other significant conclusion of this research is the increased interest in the organisational support and leadership practices as a key determinant of employee engagement in healthcare institutions. Active professionals working in the healthcare system have better chances of enjoying greater well-being, better work performance, and organisational commitment.

Although the literature has increased, a number of gaps in the research still exist. The results indicate that further empirical research is required with respect to allied healthcare professionals since most of the current studies are focused on physicians and nurses. Moreover, the influence of the digital transformation and the new technologies in healthcare on employee engagement should be explored further.

To sum up, the present bibliometric research has added to the current body of knowledge by outlining the knowledge base, research pattern and thematic development of employee engagement and well-being in allied healthcare professions. The findings are useful to researchers, healthcare administrators, and policymakers looking to formulate the strategies that can improve workforce engagement and ensure long-term well-being in healthcare organisations.

### **Author Contributions**

All the authors contributed equally to the conceptual framework, methodology development, data analysis, data organisation, editing, proofreading, and writing of the manuscript.

### **Conflict of Interest**

The authors declare no conflicts of interest associated with this study.

### **Ethics Approval**

Not applicable.

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