



A Bibliometric and Systematic Review of Workplace Psychological Safety: Trends, Gaps, and Future Research Directions

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ABSTRACT

Introduction/ Background- In today's complex organizational environments, employees are expected to share ideas and innovate, often facing interpersonal risks when challenging established norms. Psychological safety enables individuals to speak without fear of negative consequences, fostering trust, open communication, learning, collaboration, inclusion, and a sense of belonging at work. **Objective:** The primary objective of this study is to conduct a bibliometric and systematic review of psychological safety research, identifying major trends, influential authors and journals, thematic developments, research gaps, and future research directions. **Methods:** A bibliometric and systematic literature review was conducted using Scopus data, applying citations, co-authorship, co-citations, and keyword co-occurrence analyses. **Results:** The results indicated a significant increase in research on workplace psychological safety, particularly after 2017, demonstrating growing scholarly attention. Publications are mainly concentrated in developed countries, especially the USA and China. Core themes, such as leadership, creativity, and organizational behavior, are well developed, while several emerging areas remain underexplored. **Conclusion:** Although the field of psychological safety shows strong growth, it remains underdeveloped in terms of theoretical integration and empirical depth. Future studies should focus on theory building, robust research designs, and investigations across diverse organizational and cultural contexts to strengthen the evidence base.

1. INTRODUCTION

In today's business environment, there is a growing trend among organizations to expect their employees to support the ongoing improvement of products and delivery/speed quality, by engaging in behaviors that foster learning, such as proposing creative ideas, collaborating with colleagues, and experimenting with innovative approaches [1,2]. Although these activities can create value for the organization, they may also pose a risk to the individual. For example, introducing a new concept may challenge existing norms and create tensions with the vested interests of other members within organizations. Proposing a novel concept might disrupt established practices and conflict with the vested interests of other organizational members [3,4]. Building a work environment that promotes psychological safety means creating a culture of trust, respect, and openness where individuals feel comfortable sharing ideas, asking questions, expressing concerns, and admitting mistakes without fear of negative consequences such as embarrassment, rejection, or punishment. It serves as an effective mechanism for addressing challenges related to both individual and organizational learning [1]. For instance, a recent long-term study conducted by Google's People Analytics Department discovered that psychological safety was the top factor distinguishing successful, high-

performing teams [5]. Mistakes can be viewed as learning opportunities rather than failures only when individuals feel free to acknowledge them without fear of negative consequences [6]. Whenever a team is psychologically safe, members are more likely to ask for help, discuss problems and mistakes, and develop innovative solutions [7]. Other studies also suggest that psychological safety plays a critical role in shaping organizational performance [1,8]. Psychological safety promotes staff resilience, error detection, quality improvement, and patient and family involvement [9].

The theoretical development of psychological safety may be traced back to the work of Schein and Bennis, who explored a culture that promotes experimentation and tolerates failure without repercussions. Kahn further defined psychological safety at the individual level as a state in which people can express themselves and work without fear of harm to their self-image, status, or profession. Edmondson expanded on the concept at the team level, defining team psychological safety as a shared conviction in the team's ability to take interpersonal risks. This conceptual development indicates how psychological safety has progressed from an individual perception to a more widespread team and organizational reality. As a result, researchers have investigated the topic across a variety of contexts, levels, and disciplines.

Despite the increase in studies, significant gaps remain in the extant literature. First, psychological safety research spans multiple disciplines and contexts, making it difficult to determine the field's overall conceptual structure and evolution based on specific empirical investigations. Second, while various studies have examined specific aspects, antecedents, and repercussions of psychological safety, the field needs a systematic mapping of its evolution to identify emerging themes and research opportunities. Third, the geographical distribution of research contributions, as well as the relative importance of countries, authors, and journals, must be investigated further to determine whether psychological safety research development is balanced across areas.

Finally, scholars must identify methodological and topical tendencies so future scholars can guide the field's development.

As a result, the current study conducts a bibliometric and systematic review of workplace psychological safety utilizing publications obtained from the Scopus database. The study examines the field's evolution, publication and citation trends, well-known authors, key journals, regional contributions, and major research topics. In addition, the study examines major articles to identify key topics, methodological approaches, antecedents, outcomes, and future directions in psychological safety research.

The study contributes to the existing literature in various ways. First, it presents a thorough overview of the evolution and expansion of workplace psychological safety research. Second, it recognizes key countries, writers, journals, and publications that have helped to shape the discipline. Third, it highlights the major research themes and methodological approaches used in previous studies.

2. LITERATURE REVIEW

2.1 Psychological Safety

Edgar Schein and Warren Bennis first proposed psychological safety in 1965 at the personal level as a climate “which encourages provisional tries and tolerates failure without retaliation, renunciation, or guilt.” Later, in 1990, Kahn described psychological safety as a personal feeling of being “able to show and employ oneself without fear of negative consequences to self-image, status, or career.” However, Harvard Business School Professor Amy Edmondson described it in 1999 as a group norm and team-level climate called “team psychological safety.” The author conceptualizes psychological safety as a shared belief among team members that interpersonal risk-taking is safe; therefore, there is no need to worry about rejection, punishment, or humiliation when taking interpersonal risks, such as sharing opinions, proposing new ideas, asking questions, and making suggestions. Amy Edmondson defines it as a “shared belief that the team is safe for taking interpersonal risk.” She highlights that the psychological safety of employees is high when (1) members of the organization are free to express their opinions; (2) the organization is supported and allowed to take risks; (3) members of the organization trust and respect their peers; and (4) members of the organization share common beliefs and values. The author also claims that this is a group-level phenomenon that determines the group's learning behaviour, which in turn influences the team and, ultimately, organizational performance.

According to the available literature, psychological safety enhances employees' job involvement, reduces their intention to leave the organization, and fosters a culture that promotes creativity, teamwork, and overall success for both the organization and its employees.

2.1.1 Levels of Psychological Safety

There are three levels of psychological safety: individual, group, and organizational [1,10].

(i) Individual-level psychological safety

It concerns how comfortable an individual is taking interpersonal risks in a specific environment, such as the workplace. Relationships, environment, and personal characteristics all affect a person's sense of safety. First, in 1945, Maslow defined it in 1945 as a sense of trust, safety, and confidence that removes anxiety and worry, particularly the belief that one is satisfying their present and future needs. Later on, explain psychological safety as a climate “which encourages provisional tries and tolerates failure without retaliation, renunciation, or guilt.” The literature presents it as a concept in which employees freely demonstrate themselves and express different personalities in various situations, without worrying about their status, self-image, or the negative effects of their work [11, 12].

(ii) Group/Team level psychological safety

Team-level psychological safety denotes a collective belief among team members that they can engage in interpersonal risk-taking without fear of negative consequences. Open communication, mutual trust, and shared beliefs are the key dimensions of team-level psychological safety. Amy Edmondson, a scholar and Harvard Business School professor, first defined it in her 1999 research as “psychological safety is the belief that one will not be punished or humiliated for speaking up with ideas, questions, concerns, or mistakes.” Psychological safety is divided into two parts: self-psychological safety, which refers to an individual's emotional well-being with others, including their perception of whether others will embarrass them, and how much they feel valued and trusted by others. Other psychological safety refers to the level of safety one perceives another to possess in this relationship [13].

(iii) Organisational level psychological safety

It refers to the general belief that interpersonal risk can be taken safely within an organization. Teams and departments believe that individuals may ask questions, share ideas, and admit mistakes without fear of negative outcomes. Psychological safety creates a work environment in which employees feel secure, supported, and free to engage in well-defined roles without fear of negative consequences [14].

Psychological safety has become a vital component that affects team performance, innovation, employee well-being, and organizational performance. To improve cooperation, learning behavior, and open communication, it is essential to create a psychologically safe workplace atmosphere, as it continues to evolve in complexity and diversity.

3. RESEARCH METHODOLOGY

This study adopts the bibliometric analysis approach, a subset of systematic literature review (SLR), to analyze the data. Bibliometric analysis is a crucial tool for evaluating and interpreting scientific output, university collaboration, and keyword-based research findings [15,16]. In addition, bibliometric analysis provides a comprehensive overview of publications on a specific topic, identifying key developments in the field by applying statistical methods to examine both qualitative and quantitative trends in scientific research [17]. Because the Scopus database covers a number of fields, scientific papers from it were examined in this study. Initially, 3568 items were retrieved from Scopus using the keyword “Psychological safety” in the search string, which was restricted to “keywords, abstracts, and/or titles.

Table 1. Research methodology & Database searching

Search Word	Psychological Safety
Category	Title, Abstract and Keywords
Year	1999-2025
Subject Area	Social Science, Psychology, Business Management & Accounting
Document Type	Articles
Type of Source	Journal
Languages	English
Stage of Publication	Final
Search date	02 May 2025

Source: Author's own work

The analysis covered all articles published until May 2, 2025. Further analysis was carried out in the following stage, using particular criteria to reduce false positives that would jeopardize the validity of the data. The inclusion criteria were as follows: (i) the document type was limited to “Article” or “Review” (ii) only publications at the final stage were taken into consideration; (iii) the source type was limited to

“journal”; (iv) the languages was limited to “English”; and (v) the subject area was limited to “social science, business and Management, accounting, accounting, and psychology. (refer to Table 1).

Book chapters, conference proceedings, letters, short surveys, or publications written in languages other than English. After applying the inclusion criteria, 1172 papers were identified in the Scopus database (Figure 1). In the last stage, after reviewing the articles' titles and abstracts, 974 articles were excluded. Although the excluded articles were relevant in a broader sense, their abstracts pertained to contexts inconsistent with the study's specific focus. A total of 198 out of 1172 articles were included and focused on psychological safety as their primary concept. A CSV file containing all 198 bibliographic records of the articles retrieved from Scopus was exported. The authors' names, affiliations, titles, keywords, abstracts, journal names, citations, references, and publication year are all included in this file.

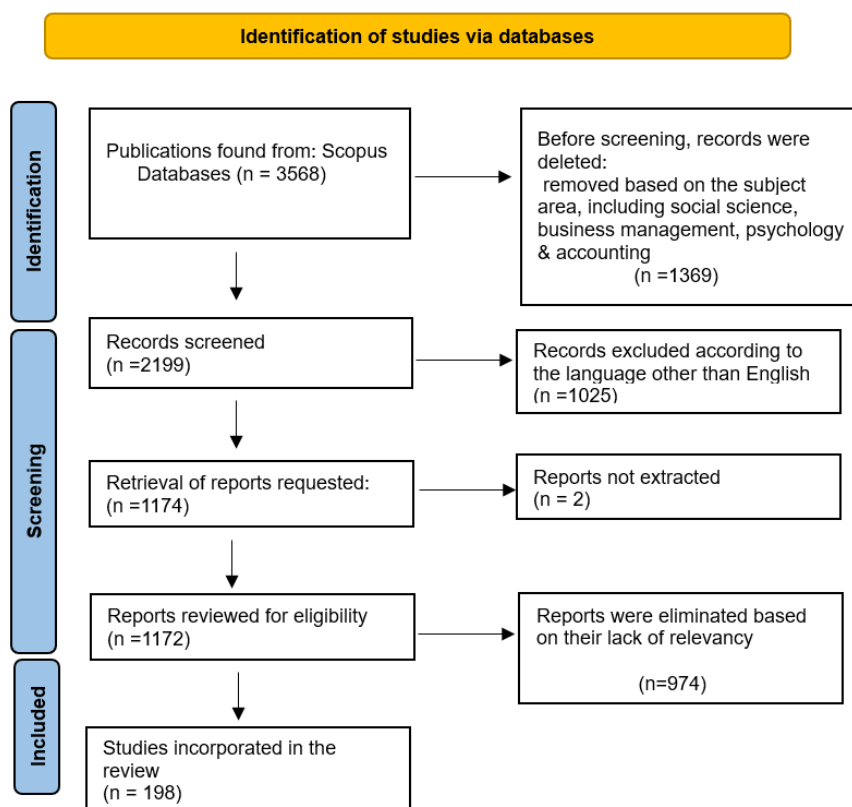


Figure 1. The PRISMA Framework

Source: Author's own work

A bibliometric analysis was conducted using R and its built-in Biblioshiny utility to identify the leading journals, authors, and countries in the field of psychological safety.

4. RESULTS AND DISCUSSION

The findings of the study are covered in the four subsections that follow: (i) citation structure and publications; (ii) study of prominent authors, journals, and countries; (iii) an analysis of the literature review of the ten relevant publications; (iv) thematic analysis of keyword co-occurrence, conceptual thematic mapping, and bibliographic coupling across sources and countries have all been done.

4.1 Citation Structure and Publications

Figure 2 shows the number of publications on psychological safety by year. Earlier research patterns indicate that, until 2011, the number of publications remained nearly constant (fewer than 5). It is an emerging area of research with slow but steady advancement that has gradually attracted scholars' interest, as evidenced by a spike in publications, especially since 2013. The peak appears to be pronounced in 2024 with 28 publications. Overall, publications show a clear upward trend over time.

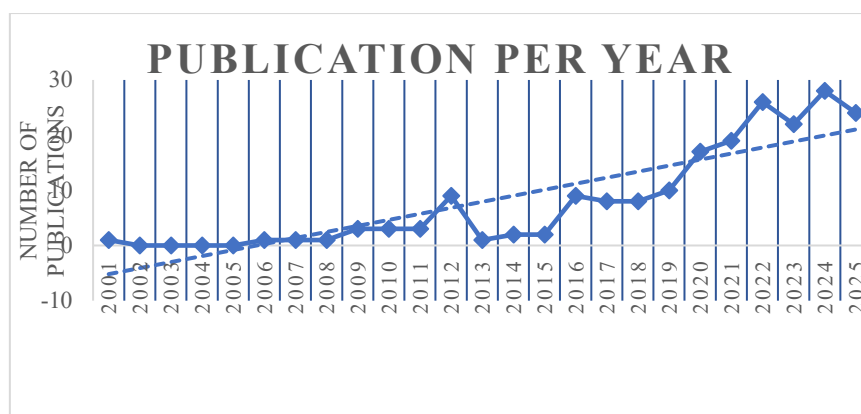


Figure 2. Annual output of scientific publications as indexed by Scopus in the field of Psychological Safety

Source: Author's own work

Figure 3 depicts the trends in the average number of citations per article of psychological safety over time. The data showed that articles published from 2004 to 2010 had a very high impact factor, with the highest peak in 2009 (340 citations per article). However, the number of citations undoubtedly decreased. In 2013, a slight peak was observed, followed by a noticeable and consistent increase in the number of publications since 2017. The steady rise between 2017 and 2019 indicates an upsurge in scholarly interest in the subject. After 2020, this trend has accelerated significantly, with annual publishing output peaking in 2022-2024. The total volume of publications remains significantly higher than that in the previous year, despite slight variations towards 2025, demonstrating the increasing popularity and consolidation of the scientific field. Most published research has focused on improving the definitions, understanding, and theoretical foundations of psychological safety.

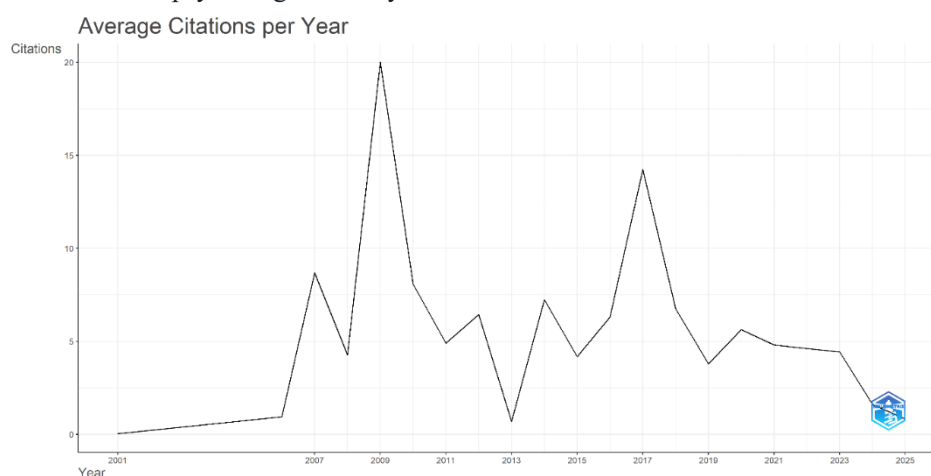


Figure 3. Average Total Citation (TC) Per Article

Source: Biblioshiny (RStudio)

4.2 Study of Prominent Authors, Journals, and Countries

This knowledge base on psychological safety exhibits a substantial geographic imbalance despite contributions from scholars in 45 countries (see Table 2). The following table shows that half of the published studies were from the USA ($n = 43$, 2057 citations), China ($n = 38$, 1137 citations), and Australia ($n = 5$, 848 citations). Despite numerous publications and high impact factors, the USA and China have outstanding research outputs and influence. With only five publications and 848 citations, Australia stands out, indicating that these few works have a significant impact. High impact and article counts are observed for Korea and Israel. On the other hand, India and the UK are categorized as modest contributors, indicating

consistent but respectable research output and effects. The USA and China show strong research productivity and influence, contributing to many publications and achieving high-impact factors. Australia stands out with only five articles, but 848 citations, suggesting that those few papers are highly influential. Israel and Korea have high impact and article counts. India and the United Kingdom are classified as moderate contributors, reflecting steady, yet reasonable levels of research output and impact. With article counts ranging from two to six and citation totals between 136 and 197, Belgium, the Netherlands, and Thailand exhibit low publication activity, suggesting the need for new or specialized contributions to the subject. Germany, Canada, Turkey, and France- the nations with the lowest contributions all contribute fewer than six papers and have comparatively low citation counts, demonstrating modest research productivity and citation effects. This implies relatively little interaction in the field of study.

Table 2. Leading countries with the most citations

Sr. No.	Categories	Countries	TC	Articles
1	Highly Contributed Countries	USA	2057	43
2		CHINA	1137	38
3		AUSTRALIA	848	5
4	High contributed Countries	ISRAEL	485	4
5		KOREA	429	15
6		INDIA	269	8
7	Moderate contributed Countries	UNITED KINGDOM	259	6
8	Low Contributed Countries	BELGIUM	197	2
9		NETHERLANDS	148	4
10		THAILAND	136	6
11	Lowest contributing Countries	GERMANY	59	4
12		CANADA	19	2
13		TURKEY	18	6
14		FRANCE	5	2

Source: Author's own work

Table 3. Authors with the most Publications and Citation

Authors	TP	TC
CARMELI, ABRAHAM	4	732
ANSEEL, FREDERIK	2	260
ELLIS, ALEKSANDER P.J.	2	165
ROUSSIN, CHRISTOPHER J.	3	138
APPELBAUM, NITAL	2	133
GE, YUANQIN	2	62
CHOI, SUK BONG	2	56
BENNET, ALEX	2	42
CAUWELIER, PETER	2	42
FAINSTAD, TYRA	2	28
CHENG, JEN-WEI	2	19
GUCHAIT, PRIYANKO	2	18
DAWKINS, MARIE W.	2	3
FORD, SHANNON H.	2	3

Source: Author's own work

(See Table 3) Based on the analysis, 658 authors contributed to the publications. Only one author, Abraham Carmeli, had four articles with the highest citations. Of the 658 authors, only 28 published more than 2 articles. Hence, the analysis incorporated the top 14 contributing authors. Table 3 outlines the key contributors in this field, arranged by the number of publications and citations. Most of the article citations have been received by the authors Carmeli, Abraham (732), Anseel, Frederik (260), Ellis, Aleksander P.J. (165), Roussin, Christopher J. (138), and Appelbaum, Nital (133), making them the most relevant researchers in this field. Additionally, aside from these two authors, 26 authors have published only two papers, indicating that the research area remains in its nascent stage and requires greater author involvement. This boosts the credibility of publications in the upcoming years.

To assist future researchers in determining which journals would be the best for publishing their studies. It is essential to identify journals that have the greatest influence on research in this domain. Of the 137 journals, we included the top 15 in our research (Table 4). With 1260 citations globally, the “Journal of Applied Psychology” is the most productive journal. Frontiers in Psychology (526) has almost half as many citations as the “Journal of Applied Psychology” but has the highest h-index (11). The journal “Social Behaviour and Personality” has the second-highest h-index (7), with 157 citations globally. Overall, manuscripts published in renowned journals highlight advancements in the field of study and spark new research directions.

Table 4. Scientific Journals with the Most Citations

Journals	Publisher	TC	h-index
Journal of Applied Psychology	American Psychological Association	1260	5
Frontiers in Psychology	Frontiers Media	526	11
Journal of Creative Behaviour	wiley Open library	188	2
Journal of Knowledge Management	Emerald	173	3
Social Behaviour and Personality	Scientific Journal Publishers Limited	157	7
Journal of Psychology: Interdisciplinary and Applied	Taylor & Francis	127	2
Group And Organization Management	SAGE	91	2
International Journal of Organisational Analysis	Emerald	81	3
Journal of Leadership and Organizational Studies	SAGE	76	3
International Journal of Productivity and Performance Management	Emerald	72	3
Frontiers In Education	Frontiers Media	70	2
Clinical Simulation in Nursing	Elsevier	67	3
Sustainability (Switzerland)	MDPI (Multidisciplinary Digital Publishing Institute)	64	3
Cogent Business and Management	Taylor & Francis	44	2
Current Psychology	Springer	32	2

Source: Author’s own work

4.3 Literature Review of the Top 10 Publications

In terms of relevance, the top ten influential articles were comprehensively studied and reviewed. These articles provide an understanding of the theory of psychological safety, its key enablers, and its consequences. Some studies also treat psychological safety as a mediator or moderator.

Table 5. Review of Literature of the Top 10 prominent articles after review

Nature of analysis	Studies	Methods	Focus areas	Purposes	Support for the research Domain
Quantitative research	Sobaih E. et al. (2022) [18]	SEM of AMOS version 23	Psychological safety, transformational leadership, turnover intention and the Kingdom of Saudi Arabia	To investigate transformational leadership’s effect on COVID-19 turnover intention and the mediating role of psychological safety in this relationship.	Studies show that even in the absence of transformational leadership approaches, psychological safety ensures negative turnover intention and helps to create a sustainable working environment by reducing turnover intention in the tourism and hotel context [18].
Quantitative Research	Kassandrinou et al. (2023) [19]	SEM	Psychological safety, Employee silence, burnout, engagement,	To examine various forms of employee silence exhibited by teachers and how these relate to psychological safety, burnout and engagement.	The study highlighted the importance of acquiescent and quiescent silence, two types of silence that originate from terror and a loss of hope,

Nature of analysis	Studies	Methods	Focus areas	Purposes	Support for the research Domain
					respectively. This research contributes to the growing body of research demonstrating that teaching is a profession characterised by low psychological safety, increasing burnout, and employee silence. [19].
Quantitative Research	Kızrak et al. (2023) [20]	SEM	Intention to leave, relational job crafting and network ability	To investigate why employees decide to leave their company, while taking into consideration job crafting, networking skills and psychological safety	The study shows that intention to leave is inversely correlated with psychological safety. The association between psychological safety and intention to quit is serially affected by relational job crafting and networking ability [20].
Quantitative Research	Maximo et al. (2019) [21]	SEM	Authentic leadership, trust in supervisor, work engagement, mining industry	To investigate how psychological safety, work engagement and supervisor trust are influenced by authentic leadership and to examine whether the relationship between authentic leadership and work engagement is indirectly affected by the trust in the supervisor and psychological safety	The findings revealed that psychological safety and supervisor trust are highly valued by authentic leadership. The study further demonstrated that authentic leadership has a statistically significant indirect impact on work engagement through supervisor trust. [21].
Quantitative Research	Petrov et al. (2023) [22]	R and R packages	Job crafting, task-related performance, contextual performance and creative performance	To examine how different types of work performance – task performance, contextual performance and creative performance are related and how work engagement and job crafting play a mediating role.	The study concluded that organizations can enhance employee engagement and job crafting by promoting psychological safety, which will ultimately result in improved performance. [22].
Quantitative Research	De Carvalho Chinelato et al. (2020) [23]	SEM in Mplus software version 7.11.	Job crafting behaviour, psychological safety and psychological safety needs	To explore the relationship between job crafting behaviour and psychological safety, as well as how psychological needs satisfaction influences this relationship.	The study found a direct relationship between psychological safety and basic psychological needs as well as job crafting behaviour, the direct connection between job crafting behaviour and need satisfaction and the indirect relationship between psychological safety and job crafting behaviour that is mediated by psychological safety needs. [23].
Quantitative Research	Sun, T. (2023) [24]	Stata 17 MP via SEM	Employee involvement, mindfulness and conservation of resource theory	To develop an M-EI (mindful-employee involvement) model to investigate how to improve psychological safety	The study investigated that mindfulness is the key enabler of psychological safety, considering employee involvement as an

Nature of analysis	Studies	Methods	Focus areas	Purposes	Support for the research Domain
					elementary mediator. The study reveals that the psychological safety level can be increased through improved individual mindfulness and effective employee involvement practices. This will improve our employees' mental health and boost their intrinsic motivation, and give them more autonomy at work, and that will ultimately lead to a more engaging and sustainable corporate environment with consistent growth [24].
Quantitative Research	Bagga, M. (2022) [25]	NVivo data analysis software	School teachers, Indian teachers and psychological safety	To examine the PS level among teachers in Indian schools, to find out the elements affecting teachers' PS and what kind of support is expected from the teachers to foster psychological safety	The result revealed that the PS of Indian school teachers was average. The results also suggested that the relevance of PS for teachers, indicating that teamwork, leadership, and organisational culture all play a significant role in PS for teachers. [25].
Quantitative Research	Kirsten A. et al. (2024) [26]	Anova	Academic medicine, leadership and healthcare teams	To investigate ways to promote psychological safety in academic medicine	The study presents a model for other health professional groups seeking to foster psychological safety and outlines an evidence-based approach to improving it within a medical school department. [26].
Quantitative	Kyambade et al. (2024) [27]	Smart PLS-SEM and SPSS	Educational psychology, management, & administration, higher education, socially responsible leadership	To investigate the link between psychological safety and socially responsible leadership	The result shows a strong and favourable correlation between psychological safety and socially responsible leadership. Developing a psychologically safe culture promotes creativity, teamwork and the overall success of the study and its employees. In addition, socially responsible leadership enhance sustainable practices, and community involvement has beneficial effects on society. [27].

Source: Author's own work

4.4 Network Analysis

This section presents network maps of keyword co-occurrence and bibliographic coupling among sources and countries, generated using VOSviewer. In the network, items are displayed by their labels and, by

default, as circles. The diameter of each circle reflects the item's weight, with both the circle and its label scaled [28].

4.4.1 Review of Co-Occurrence of Keywords

The map illustrates the co-occurrence association among the keywords extracted from the Scopus database. The node size indicates the frequency at which a keyword appears. Line thickness reflects the strength of co-occurrence, and colors signify the connections between related themes. According to keyword co-occurrence analysis, psychological safety is the most prominent and central term, with strong connections to multiple thematic clusters.

The default threshold for keyword occurrence was set to a minimum of 5 occurrences. Of the 978 keywords, only 58 met this criterion. Since the resulting visualization included a limited number of keywords, the findings cannot be considered broadly generalizable. Accordingly, we reduced the minimum keyword occurrence threshold to four, yielding 85 keywords out of 978, but the resulting visualisation was overly scattered and lacked analytical value; thus, the most effective results were obtained by setting the minimum occurrence to three. Ultimately, 116 keywords, five clusters, and 660 links were identified, with a total link strength of 978. The resulting visualization is shown in **Figure 4**.

A theme has been assigned to each cluster, as described below:

Cluster 1 (Red - Leadership and organisational behaviour): Keywords such as inclusive leadership, team performance, creativity, leadership, and knowledge sharing show how psychological safety encourages innovation, employee engagement, and a collaborative work environment.

Cluster 2 (Green – Human and Health dimensions): This cluster highlights the application of psychological safety in healthcare and medical training contexts, and includes terms such as adult, human, male, female, nursing education, and patient safety.

Cluster 3 (Blue - Learning and Medical Education): Learning, collaboration, burnout, performance, cross-sectional study, and medical education are key terms that emphasize psychological safety in learning environments and their impact on well-being and professional performance.

Cluster 4 (Yellow - Workplace Engagement and Well-being): Keywords such as workplace, well-being, and work engagement indicate that organizational health and employee outcomes are crucial.

Cluster 5 (Purple - Organisational Culture and Ethics): Although it is smaller, this cluster is essential because it examines how organizational culture and ethics shape psychological safety.

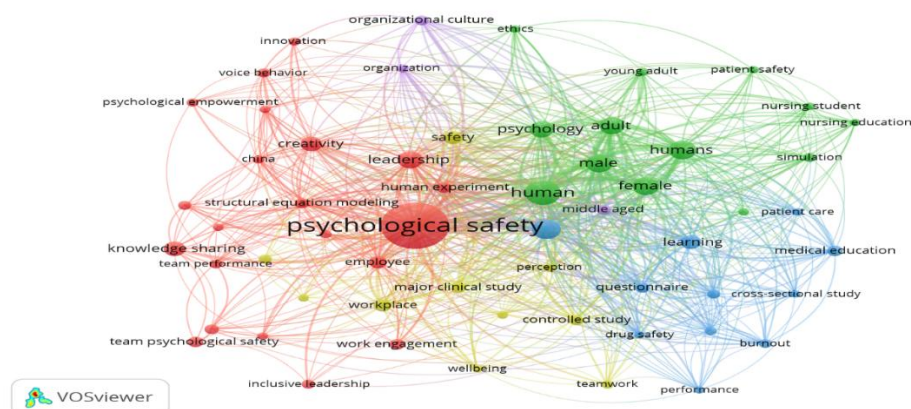


Figure 4. Keywords co-occurrence network on psychological safety (VOSviewer)

4.4.2 Bibliographic Coupling

In contrast to co-citation analysis, the bibliographic link between two publications strengthens as the number of references shared increases [29]. **Figure 5** illustrates the bibliographic coupling of the key publications and academic journals dedicated to psychological safety.

We included only sources (journals) with at least 2 publications, maintaining the citation threshold at its default value of 0. From 137 sources, only 26 meet the thresholds.

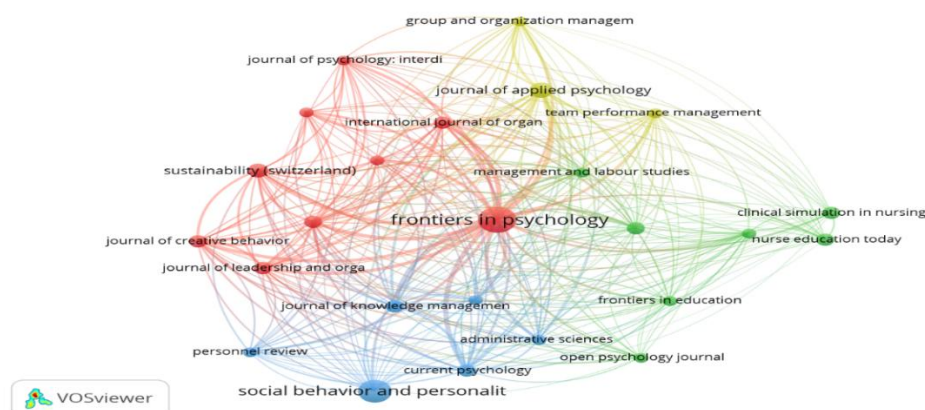


Figure 5. Bibliographing Coupling of Sources

Source: VOSviewer

As certain sources showed minimal bibliographic coupling with others, they were excluded from the network [30]. Consequently, one source was removed, and the analysis was conducted on the remaining 25 sources. The visualization results are shown in Fig 5.

Four distinct clusters were identified using VOSviewer. The first cluster, red, consists of nine sources concentrated in domains such as creative behavior, leadership and management. In terms of publications (14), citations (526), and total link strength (2,223) among the 14 articles, the journal “Frontiers in Psychology” comes first. The second cluster, on the other hand, had seven sources and was green. There are three articles, 67 citations, and a total link strength of 99 in the journal “Clinical Simulation in Nursing.” Cluster 3, which is denoted by dark blue, comprises six sources. With 157 citations, the journal “Social Behaviour and Personality” has the most publications (11). The fourth cluster is indicated by yellow lines. The “Journal of Applied Psychology” has the highest total link strength (798), the most citations (1,260), and the most articles (five documents) in this cluster. Each document was linked to the others.

4.4.3 Bibliographic Coupling of Countries

Likewise, Figure 6 represents the most productive countries in the research domain, with a minimum publication count of two citations, set to 1. As a result, 30 of 59 countries meet these requirements. We calculated the total number of publications, citations, and total link strength for each country. As a result, we found seven clusters, 435 links, and a total link strength of 61216. The dominant countries are the United States, China, South Korea, and the United Kingdom, with total link strengths of 24877, 15745, 9604, and 4841, respectively, and each country has more than 10 publications.

Therefore, these countries are closely linked to one another. The United States and China are leading countries in both productivity and collaboration, while multiple regional clusters show strong intra- and inter-country collaboration. India contributed nine publications in this domain, with 277 citations and a total link strength of 6,166. However, 23 countries had only one publication, including Poland, Sweden, Mexico, and Greece.

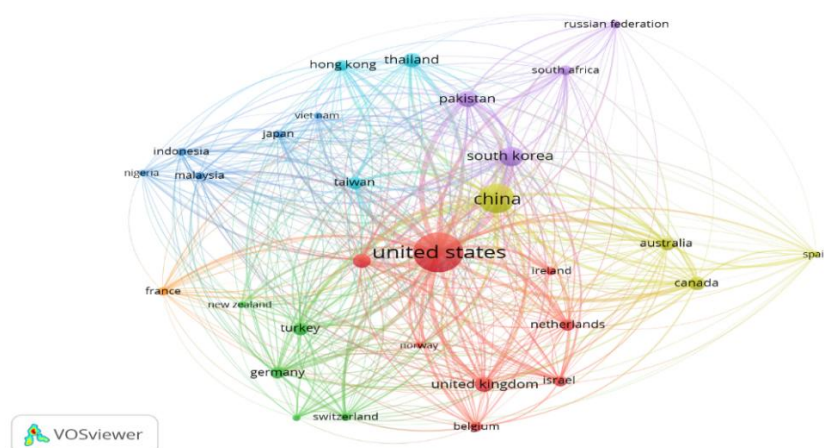


Figure 6. Bibliographing the Coupling of Countries

Source-VOSviewer

4.4.4 Thematic Analysis

Figure 7 illustrates the thematic map of the research field segmented into four quadrants. The upper-right quadrant (Q1) represents the driving themes, while the upper-left quadrant (Q3) highlights highly specialized or niche topics. The lower-left quadrant (Q4) includes emerging or declining themes. This thematic mapping is based on clusters formed from author keywords and is analyzed along two key dimensions: density and centrality. Density indicates the internal strength and development of a theme, determined by how interconnected the keywords are within the cluster. Centrality, on the other hand, measures a theme's significance within a broader field. Together, these metrics evaluate the maturity and relevance of each theme [31].

A detailed description of the conceptual framework and the development of psychological safety research themes were provided by thematic map analysis. The inclusion of “psychological safety,” “leadership” and “creativity” in the motor themes quadrant indicates that these ideas are well-known, important and fundamental to the subject; they are also significant factors in the contemporary academic discussion. On the other hand, subjects like “knowledge sharing,” “team psychological safety,” and “work engagement,” which are included in the core themes quadrants, represent important and unexplored ideas and present considerable opportunities for additional research. Furthermore, the placement of “India” and “corporate social responsibility” suggests novel regional and contextual applications that need further exploration. While emerging or declining themes such as “collaboration” and “perceived organisational support” indicate areas that may be losing scholarly interest and are still in the early stages of development, niche themes such as “online learning” and “computer-aided instruction” highlight specialized but less-connected areas. This thematic analysis opens the door for future research on psychological safety and its organizational consequences by revealing the evolution of basic concepts and the unrealized potential of multiple new fields of study.

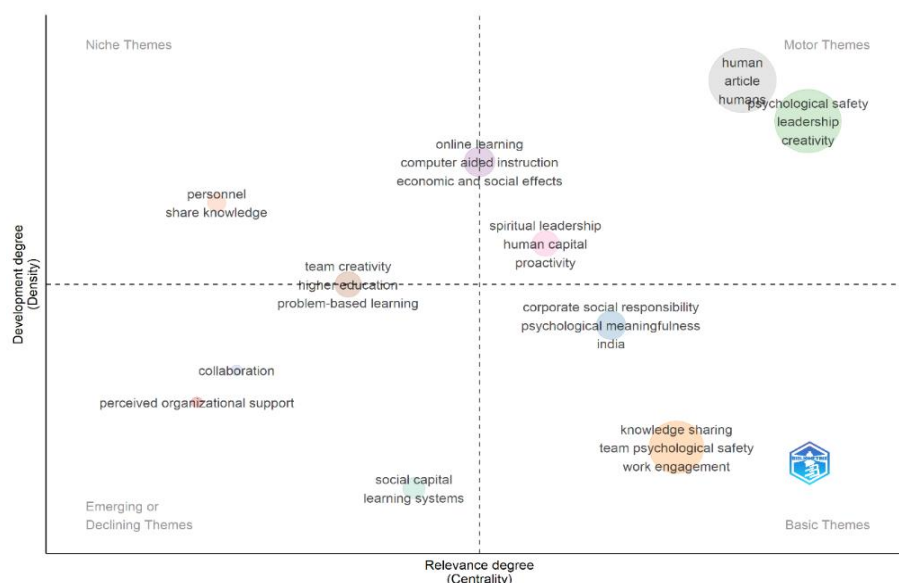


Figure 7. Thematic Map

Source: Biblioshiny (RStudio)

This study analyzed 198 Scopus-indexed journal articles published between 1999 and 2025 to examine the intellectual structure and evolution of workplace psychological safety research. The results revealed that scholarly output remained limited until 2011, reflecting an early stage of development. The output of publications increased gradually after 2013 and then quickly after 2017, reaching a maximum in 2024. This pattern indicates a shift from theoretical underpinnings to practical research and empirical consolidation.

According to geographic study, research has highly concentrated on developed economies. Both publication output and citation impact are dominated by the United States and China, which collectively account for a significant amount of literature. Although contributions from rising economies, such as India, remain moderate, Australia has a strong citation influence despite having fewer publications. The uneven distributions suggest a lack of contextual diversity and highlight the need for studies in emerging and non-Western organizational environments.

Authorship analysis revealed a fragmented research landscape, with only a few experts authoring many articles. A small number of scholars have contributed to multiple publications. Leading journals, such as the Journal of Applied Psychology and Frontiers in Psychology, serve as essential hubs of knowledge. Thematic analysis identified leadership, creativity, learning, and employee well-being as strong motor themes, whereas areas such as knowledge sharing and team psychological safety remained underdeveloped. Overall, the results indicate that psychological safety is a rapidly expanding field of study that requires extensive theoretical and contextual validation.

Beyond the mapped determinants, evidence that AI adoption improves operational performance in information-technology-intensive work suggests a further digital-capability channel worth testing in future models of psychologically safe workplaces [32]. As algorithmically mediated people-management tools expand across such workplaces, the governance of algorithmic agency becomes a policy consideration for these deployments [33].

5. CONCLUSION

This paper presents a systematic literature review and bibliometric analysis of workplace psychological safety research published between 1999 and 2025. The data reveal substantial, ongoing increases in scholarly interest, with a particularly sharp increase in publication output after 2017. This post-2017 increase signaled a period of consolidation and expansion in the subject, reflecting the growing awareness of psychological safety as a vital factor in learning, creativity, employee well-being, and organizational performance.

The outcome also shows that, in terms of publication volume and citation impact, research output is primarily concentrated in developed economies, particularly the US and China. This dominance reflects strong academic leadership in these areas, but it also reveals notable geographic disparity. Contributions from emerging and developing economies, particularly India, remain limited, underscoring the need for context-specific and cross-cultural investigations to enhance the generalizability of existing findings.

Although psychological safety is conceptually well-established, the field is still developing in terms of theoretical integration and cumulative scholarship. According to an analysis of prominent authors, journals, and topic frameworks, while areas such as information sharing, work engagement, and team psychological safety are still relatively unexplored, core themes such as leadership, innovation, and organizational behaviour are well developed, whereas areas including knowledge sharing, work engagement, and team psychological safety remain comparatively underexplored. These themes present avenues for future research.

Workplace psychological safety has emerged as a rapidly developing but not fully mature research area, with a notable increase in publication activity after 2017. Theory development, longitudinal and multi-level designs, and empirical studies in various organizational and cultural contexts should be the main areas of future research. These initiatives will strengthen the body of evidence and advance our theoretical and practical knowledge of psychological safety in modern workplaces.

6. LIMITATIONS

This study has certain limitations. First, the study considered only the Scopus database, although numerous other article databases, such as Web of Science, PubMed, and JSTOR; are available. Nevertheless, a literature review shows that Edmondson published most of the foundational papers in the field; however, much of her work has not been indexed in Scopus. This is one of the major limitations of the present study. Second, our PRISMA model has some exclusion criteria; as a result, additional value can be added by using a range of sources (such as conference papers, letters, book chapters, and conference proceedings), articles written in non-English languages, and different bibliometric indicators to further investigate the field of study that appears to be growing. Finally, it is recommended that future researchers focus their studies on this field and examine its theoretical concepts, enablers, and outcomes.

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