

Mapping Trends in Coping Strategies and Job Performance: A Computational Approach to Workplace Well-being

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ABSTRACT

Understanding the interaction of coping strategies, job performance, well-being, and organizational-level outcomes is limited in the literature. To address this gap, the study employs a bibliometric approach to investigate trends, critical themes, and knowledge gaps pertaining to coping strategies and their influence on performance. The main aims were to identify key themes, analyze worldwide research trends, and pinpoint underexplored areas warranting further research.

A systematic literature review using the PRISMA framework that searches Scopus and Web of Science for publications ranging from the years 2010 to 2025. We included peer-reviewed journal articles, reviews and conference papers published in English, leading to an initial 533 articles which were filtered down to 236 based upon screening and the removal of duplicates. The bibliometric analysis identified core themes of coping strategies, job performance, and psychological distress, and emerging themes such as resilience, mindfulness, and physiological factors like heart rate variability. The study found that China and the USA are dominant in terms of research output, with limited participation from other regions, and on global scale only 7.2% of articles had international co-authorship (7).

This research paper indicates how important coping strategies are for handling stress and improving your work performance, as well as pointing out some new ideas for future research. It also looks to increased global collaboration, modern research methods, and attention to current workplace needs, such as hybrid environments, to drive employee outcomes and organizational success.

Keywords: Coping Strategies, Job Performance, Bibliometric Analysis, PRISMA, Resilience, Stress Management

1. INTRODUCTION

Coping strategies are important for understanding how people deal with stress and challenges in both work and personal life. Lazarus and Folkman (1984) explain coping as the efforts we make to manage stress when it feels overwhelming. They identify two main types of coping: problem-focused coping, where we try to solve the source of stress, and emotion-focused coping, where we aim to handle the feelings caused by stress (Lazarus & Folkman, 1984).

At work, researchers have spent a lot of time studying how coping strategies affect job performance (Balk et al., 2013; Kent et al., 2018; Kenntemich et al., 2023). Job performance includes things like how well people do their tasks, how satisfied they are with their jobs, how they behave at work, and how they feel overall. These are all important for both individual success and how well the organization functions. Effective coping strategies not only help reduce the bad effects of stress but also improve productivity, resilience, and relationships at work.

The way coping affects job performance can be influenced by other factors, like personality, the workplace environment, and job demands (Peng et al., 2012; Folkman & Moskowitz, 2004; Demerouti et al., 2001). This review looks at different studies to understand how coping strategies impact job performance in various situations. We explore both helpful strategies that lead to good outcomes and unhelpful ones that make stress worse and reduce productivity.

The main goals of this study are to: (1) identify key themes and trends in the research, (2) look at global patterns and collaborations, and (3) highlight gaps in the research and suggest new directions to better understand how coping strategies influence job performance and well-being.

2. LITERATURE REVIEW

The literature review in this article is important because it brings together previous research on coping strategies and how they affect job performance. It highlights key findings, points out areas that need more research, and sets the stage for future studies in this area.

2.1 Coping Strategies and Job Performance

Research shows that good coping strategies can help improve job performance. For example, Lu et al. (2010) found that workers in China who used active coping strategies, like seeking support from others, performed better at their jobs. On the other hand, passive strategies were harmful. Similarly, Chen et al. (2024) showed that nurses who used problem-focused coping, such as being more engaged with their work, did better in healthcare settings.

In the hospitality industry, Elshaer et al. (2022) found that coping focused on tasks helped workers avoid negative behaviors, improving their performance. This was better than emotional or avoidance-based coping, which led to worse outcomes.

2.2 Moderating and Mediating Effects

The relationship between coping strategies and stress is influenced by other factors. Li et al. (2017) found that positive coping strategies help reduce the negative effects of stress, while negative strategies make things worse. Nandkeolyar et al. (2014) discovered that conscientiousness (a personality trait) played a role in how people responded to abusive supervision, making them more likely to cope in a way that protected their performance.

2.3 Role of Personality and Contextual Factors

Personality and the work environment also affect how well coping strategies work. Kishita and Shimada (2011) found that people who accepted stress and had more control over their work performed better. Shimazu et al. (2010) showed that workers who used active coping strategies did better, while those using emotional discharge coping suffered negative health effects.

Peng et al. (2012) found that people with conscientiousness were more likely to use problem-focused coping, which helped their performance and well-being. On the other hand, those with neuroticism tended to use negative coping methods that hurt their outcomes.

2.4 Impact of Work Environments and Socio-Cultural Variables

Workplace conditions and culture matter too. Zappalà et al. (2024) found that flexible work options helped people cope better, especially in hybrid work setups where family and work life conflict. Tummers (2017) showed that social workers who focused on motivated clients performed better in stressful situations.

2.5 Health and Resilience Factors

Coping strategies also help people handle health-related stress and improve their job performance. Kratz et al. (2010) found that people with chronic health conditions were more likely to improve their performance if they had strong self-confidence and persistence. Lambert et al. (2014) emphasized that being able to adapt coping styles helped people stay resilient under stress.

2.6 Coping Training and Stress Reduction

Training programs can help people improve their coping strategies. Abdian et al. (2022) showed that structured workshops for nurses reduced work stress and improved their performance.

2.7 Emotional and Behavioral Responses to Workplace Stress

Coping strategies also affect how people react emotionally and behaviorally to stress at work. Xiao et al. (2022) found that strategies like job crafting helped employees deal with supervisor mistreatment, improving their performance. Hewett et al. (2018) found that problem-focused coping helped reduce the effects of workplace bullying on job performance.

2.8 Implications for Practice

These studies show how important it is for organizations to encourage good coping strategies, provide support, and consider cultural factors to improve job performance. Future research should look at the long-term effects of coping strategies and explore new ways, like technology, to help manage stress.

2.9 Research Objectives

In this systematic literature review, we aim to explore three main objectives using bibliometric analysis. First, we want to identify core research themes and trends by examining how research on coping strategies and job performance has evolved. This includes mapping key themes and highlighting influential papers and journals that have shaped the field.

Second, we aim to examine global and collaborative research patterns to understand which countries are leading in this area, how international collaborations are forming, and which researchers are making significant contributions.

Finally, we seek to track emerging topics and future directions by identifying new areas of interest like mindfulness, resilience, and hybrid work environments, while also exploring topics that are declining. This helps us understand where the research is headed and what areas need more

3. METHODOLOGY

We conducted a detailed review of existing research to understand how coping strategies are linked to job performance. To do this, we followed a clear process using a method called PRISMA (Preferred Reporting Items for Systematic Reviews and Meta-Analyses), which helps ensure our review was organized and thorough (Page et al., 2020). We used a tool called Bibliometrix, which is part of the R programming language, and its easy-to-use interface Biblioshiny (Aria & Cuccurullo, 2017). This tool helped us analyze the data and understand the trends in the research. PRISMA Framework involves the Identification phase, where we collected all potential articles by searching databases with specific keywords related to our topic. This gave us a wide pool of studies to start with. Next is the Screening phase, where we applied basic filters like publication years, language, and document type. We focused on journal articles, reviews, and conference papers, removing anything that didn't fit these criteria. Final phase is the Eligibility phase, where we carefully reviewed the remaining articles, removed duplicates, and checked if they matched our research objectives. This final step gave us a clean and focused set of studies to analyze. The whole process that we followed for our study has been reflected in Figure 1.

Our process started by searching two big databases—Scopus and Web of Science—using specific keywords. We searched for articles with the word "Coping" in the title and other related terms in the

abstracts and keywords, like "Job Performance," "Employee Productivity," and "Work Efficiency." This search gave us 533 articles—385 from Scopus and 148 from Web of Science.

Next, we screened the articles to make sure they met our criteria. We focused on articles published between 2010 and 2025, narrowing it down to 325 articles, with 214 from Scopus and 111 from Web of Science. Then, we only included review articles, conference papers, and journal articles, leaving out things like book chapters. This brought the total down to 316 articles—206 from Scopus and 110 from Web of Science. We only kept articles in English, which reduced the count to 307 articles—199 from Scopus and 108 from Web of Science.

To make sure there was no repetition, we removed 70 duplicate articles, leaving us with 236 unique articles. These articles formed the foundation for our analysis, helping us explore how coping strategies affect different aspects of job performance. By following the PRISMA method, we made sure our review was clear and reliable.

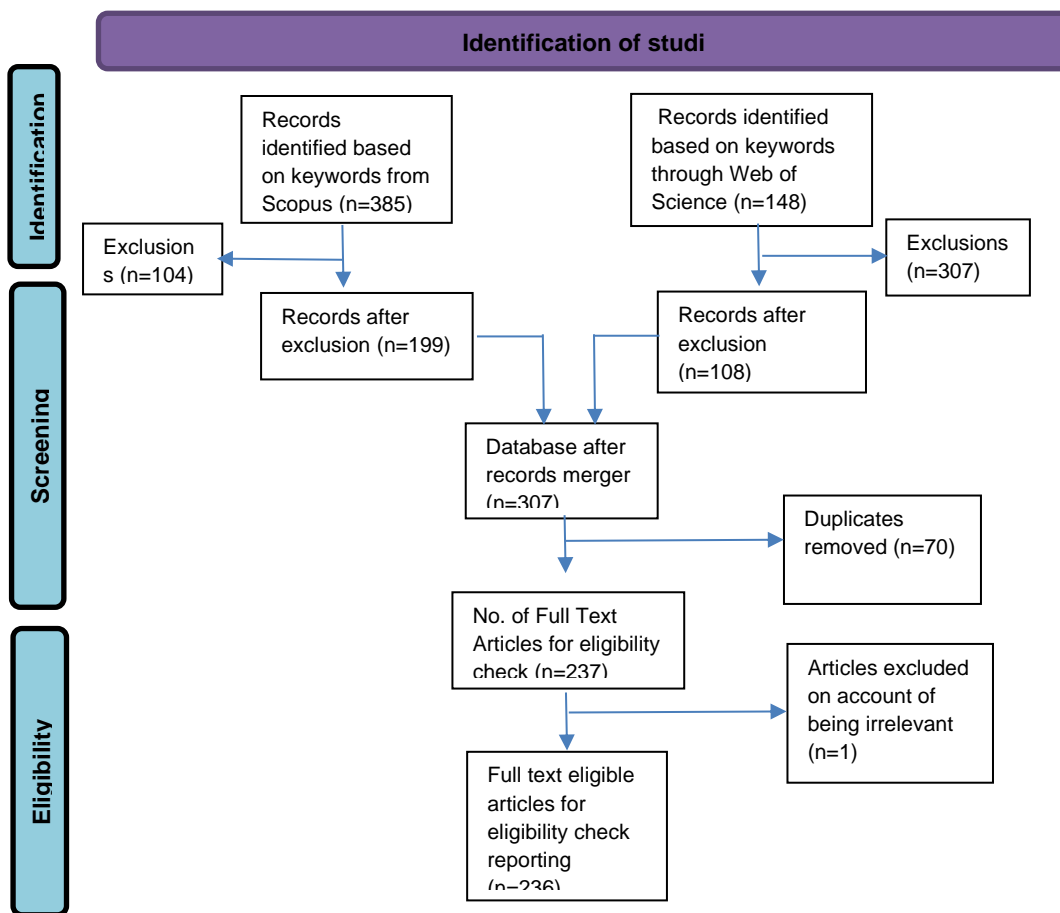


Figure 1: PRISMA 2020 flow diagram for aggregating records, as per the updated SLR Framework.

Our bibliometric analysis, covering research from 2010 to 2025, provides a snapshot of the comparatively recent research on coping and performance outcomes. Over this period, 236 articles were published across 183 sources, with each article being cited an average of 26 times. However, the number of published articles has been declining by 17.53% each year. Collaboration has been important in this research, with an average of 4.34 co-authors per paper, though only 7.2% of articles involved international teams. The research is rich in ideas, with 1,840 "Keywords Plus" and 776

author-defined keywords. Most of the articles are journal papers (208), with a small number of reviews (14) and conference papers (7). This shows that while the field has grown, there are still opportunities to encourage more global collaboration and research in the future.

Table 1: Information Summary Pertaining to the Eligible Database

Description	Results
MAIN INFORMATION ABOUT DATA	
Timespan	2010:2025
Sources (Journals, Books, etc)	183
Documents	236
Annual Growth Rate %	-17.53
Document Average Age	6.47
Average citations per doc	25.94
References	6317
DOCUMENT CONTENTS	
Keywords Plus (ID)	1840
Author's Keywords (DE)	776
AUTHORS	
Authors	986
Authors of single-authored docs	17
AUTHORS COLLABORATION	
Single-authored docs	17
Co-Authors per Doc	4.34
International co-authorships %	7.203
DOCUMENT TYPES	
Article	208
article article	1
article; early access	6
conference paper	1
proceedings paper	6
Review	14

3.1 Annual Production

Inn Figure 2, the data on yearly article production shows an interesting pattern with ups and downs in the number of articles published on coping and performance outcomes. Between 2010 and 2025, the number of articles varied a lot, with big jumps in 2013, 2014, 2019, and 2022. The highest number of articles was published in 2022, with 25 articles, showing that there was a lot of interest in the topic that year. However, in other years, like 2012 and 2025, the number of articles was much lower, with

just 7 and 1 article published, respectively. Overall, even though some years saw more articles, the trend shows that research in this area is not very steady, and there's room to encourage more consistent research and collaboration.

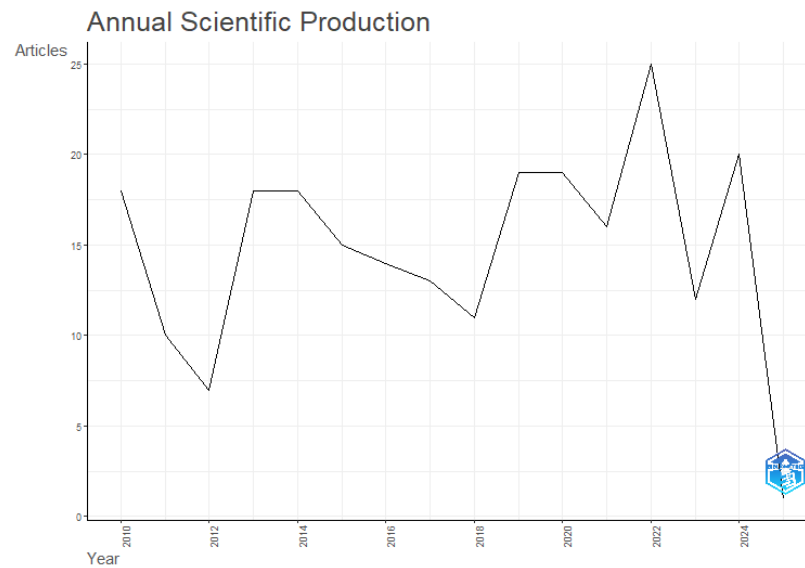


Figure 2 Annual Scientific Production in the our Research Domain:

3.2 Annual Citation per year

Looking at the pattern, corresponding to the data collected, in Figure 3, we can see that the number of citations for articles changes from year to year. In 2010, articles had a high average of 88.83 citations, meaning those articles were very influential at the time. But as the years go by, the number of citations drops. For example, in 2020, articles still had a decent average of 26.05 citations, but by 2024, this number decreased to just 0.45. This is expected, as newer articles haven't had as much time to be cited yet.

The number of articles published each year also changes. In 2022, the most articles (25) were published, but their citation count is still low, showing that newer articles need time to get noticed. Overall, the data shows that articles are cited a lot when they are first published, but the number of citations usually goes down over time. It also reminds us that newer research takes time to gain recognition.

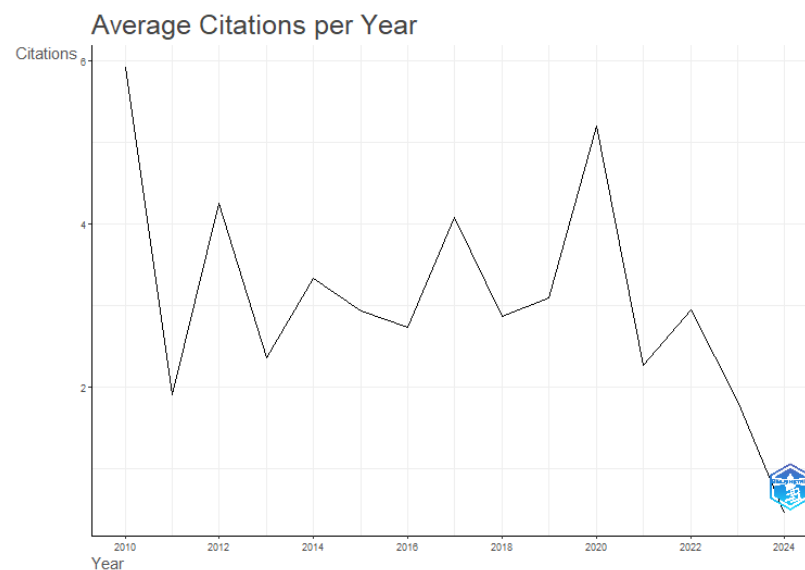


Figure 3: Annual Citation Per Year

3.3 Country Specific Production

The data presented in Table 2 shows how research is spread out across different countries. The USA is in the lead by a wide margin, with the most publications. This reflects its strong research system and global influence in academic work. China comes next, showing how quickly its research and education systems are growing. Australia and Germany also contribute a lot, thanks to their strong academic systems.

Countries like the UK, Canada, Italy, and Spain fall in the middle, steadily adding to the research field. These countries often work with others around the world and focus on specific topics. Emerging countries like India, Turkey, and South Africa are starting to contribute more, showing they are paying more attention to research growth.

Smaller countries like Denmark, Sweden, and Norway publish fewer articles, but their research is of high quality. Meanwhile, countries with very low numbers, such as Brazil, Greece, and Slovenia, are likely still building their research capabilities or focusing on smaller, specific areas.

Table 2: Country Wise Research Production

Region	Freq
USA	119
CHINA	69
AUSTRALIA	22
GERMANY	22
UK	21
CANADA	20
ITALY	18
SPAIN	14
JAPAN	12
SOUTH KOREA	12
FRANCE	11
TURKEY	11
NETHERLANDS	10
DENMARK	8
INDIA	8
SWEDEN	8
POLAND	7
FINLAND	6
NORWAY	6
INDONESIA	5
MALAYSIA	5

PAKISTAN	5
PORTUGAL	5
SOUTH AFRICA	5
UGANDA	5
IRAN	4
SERBIA	4
THAILAND	4
HUNGARY	3
ISRAEL	3
SINGAPORE	3
SWITZERLAND	3
AUSTRIA	2
BANGLADESH	2
EGYPT	2
IRELAND	2
JORDAN	2
LITHUANIA	2
NEW ZEALAND	2
NIGER	2
NIGERIA	2
ROMANIA	2
BRAZIL	1
CROATIA	1
GREECE	1
OMAN	1
PHILIPPINES	1
SLOVAKIA	1
SLOVENIA	1

Overall, we can see that most research comes from a few major countries, while others contribute less. This shows the strength of well-established research centers and the potential for growth in newer regions. By encouraging more collaboration and supporting countries that are less represented, we can create a more balanced and inclusive research environment around the world.

3.4 Country Production over Time

When we look at how research output has grown in different countries over time, we can see clear patterns of progress in Figure 4 (For top five countries)

The USA has consistently led in research, starting with 11 articles in 2010 and growing steadily to 119 articles by 2024. This shows the country's strong and ongoing support for research and development.

China has seen impressive growth, starting small with 4 articles in 2010 and jumping to 69 articles by 2024. This rapid increase shows how much China has invested in becoming a major global research center, with strong funding and policy support.

Australia has shown steady progress, starting with just 1 article in 2010 and increasing to 22 articles by 2024. This steady growth reflects Australia's commitment to expanding its research contributions.

Germany has also grown over time but at a slower pace. It started with 1 article in 2010 and reached 22 by 2024. This shows a focus on producing high-quality, specialized research.

The United Kingdom started contributing later, with no articles in 2010. However, from 2011 onward, it began to grow steadily, reaching 21 articles by 2024. This indicates a gradual but reliable increase in research output.

Overall, the data shows steady growth in research activity across these countries. While the USA and China lead in volume, countries like Australia, Germany, and the UK are making consistent progress. This growth highlights opportunities for collaboration and further development in both established and emerging research hubs.

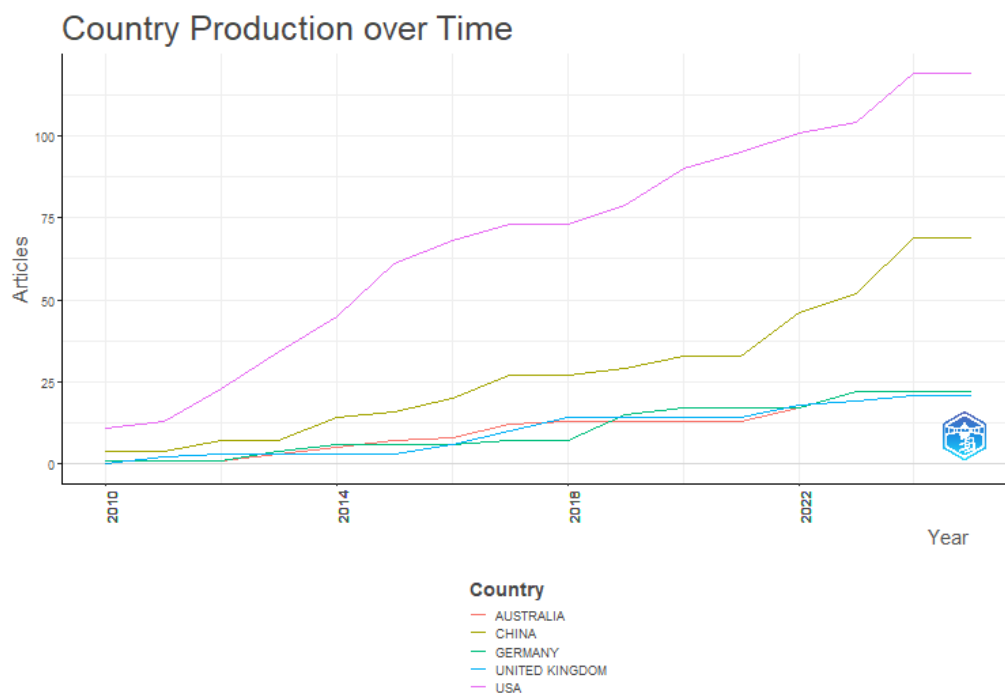


Figure 4: Research Production over Time for top Five Countries

The Figure 4 shows that the USA and China are ahead in the number of research articles, thanks to their large investments in research and development. On the other hand, Australia, Germany, and the UK are growing more gradually. These countries are still important contributors, focusing on their own priorities and strengths in research. Together, these five countries play a big role in shaping global research trends and driving progress in their fields.

3.5 Bradford's Law

Bradford's Law explains how articles in a specific field are spread across journals. It divides journals into three zones based on their productivity: Zone 1 (core sources), Zone 2 (moderately productive sources), and Zone 3 (low productivity sources). Each zone contributes about the same number of articles, but the number of journals needed to produce these articles increases greatly from Zone 1 to Zone 3 (Bradford, 1934).

Figure 5 shows how this law works by illustrating the distribution of articles across journals. In Zone 1, the steepest part of the curve, 27 journals together contribute 80 articles. Examples include journals like *PLOS ONE* and the *International Journal of Environmental Research and Public Health*, which are key sources for researchers.

In Zone 2, the curve starts to flatten. This zone has 73 journals, which add 78 more articles, making a total of 158. Journals like *Physiology and Behavior* and *Behavioral Brain Research* fall into this group. These journals expand the research scope by including interdisciplinary and specialized topics.

Zone 3 is represented by the flattest part of the curve. This zone includes many more journals but only contributes 38 articles, bringing the total to 196. These journals often focus on niche or interdisciplinary topics, adding supplementary insights that are useful but less central to the field.

Bradford's Law predicts that the number of journals increases geometrically across the zones. Using a multiplier (k), we calculated this trend, and the results align closely with what is shown in Figure 5.

This analysis provides practical insights. Zone 1 journals are essential for reviews and studies because they contain the most impactful articles. Zone 2 journals add depth with interdisciplinary perspectives, while Zone 3 journals offer valuable niche insights.

Figure 5 highlights these patterns, with the x-axis showing the rank of journals and the y-axis representing the number of articles. The shaded gray region emphasizes core sources, while the long tail of the curve shows journals with fewer contributions. This visualization supports Bradford's Law and helps researchers and librarians focus on key sources, prioritize resources, and explore literature effectively. By starting with core sources, researchers can create impactful reviews, while peripheral sources in Zone 3 add depth and diverse perspectives.

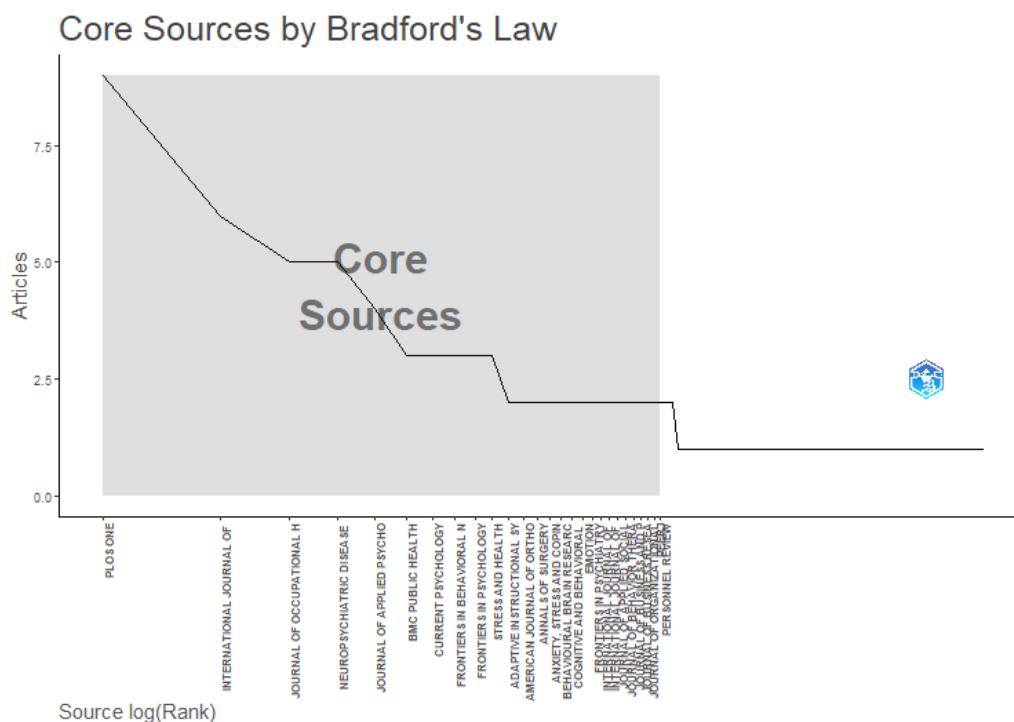


Figure 5: Core Sources as shown by Bradford's Law

3.6 Trending Topics Based on Authors Keywords

Analyzing keywords helps us see how research topics have changed over time. Figure 6 uses three key points to track these changes: *Year_Q1* shows when a topic first gained attention, *Year_Median* marks the peak of research activity, and *Year_Q3* highlights the most recent interest or surge in focus.

Some topics, like *Work stress* and *Coping strategies*, are emerging areas that became important recently (Q1: 2019). These gained momentum due to challenges like the COVID-19 pandemic and its impact on workplaces. Similarly, *Performance* (Q1: 2016, Q3: 2024) has shown steady growth, reflecting interest in how stress, coping, and resilience affect workplace outcomes.

Other topics, such as *Stress*, *Burnout*, and *Job performance*, have been consistently studied over time. These remain relevant because they address key workplace concerns like mental health and productivity. Established topics like *Coping* and *Personality* peaked in the mid-2010s and still hold value for foundational research, though they are not expanding as actively as before.

Some earlier topics, like *Conscientiousness* and *Cognition*, have seen less focus recently, with peaks in the early 2010s. This suggests researchers are shifting toward studying more dynamic areas, such as resilience and coping, rather than static traits.

Highly active areas like *Depression* and *Nurses* show current priorities, especially focusing on mental health challenges in healthcare, which have become more pressing due to the pandemic.

Overall, this analysis shows that research is adapting to modern workplace challenges by focusing on mental health and dynamic processes. Understanding these trends helps us align our research with current needs and explore areas that require more attention.

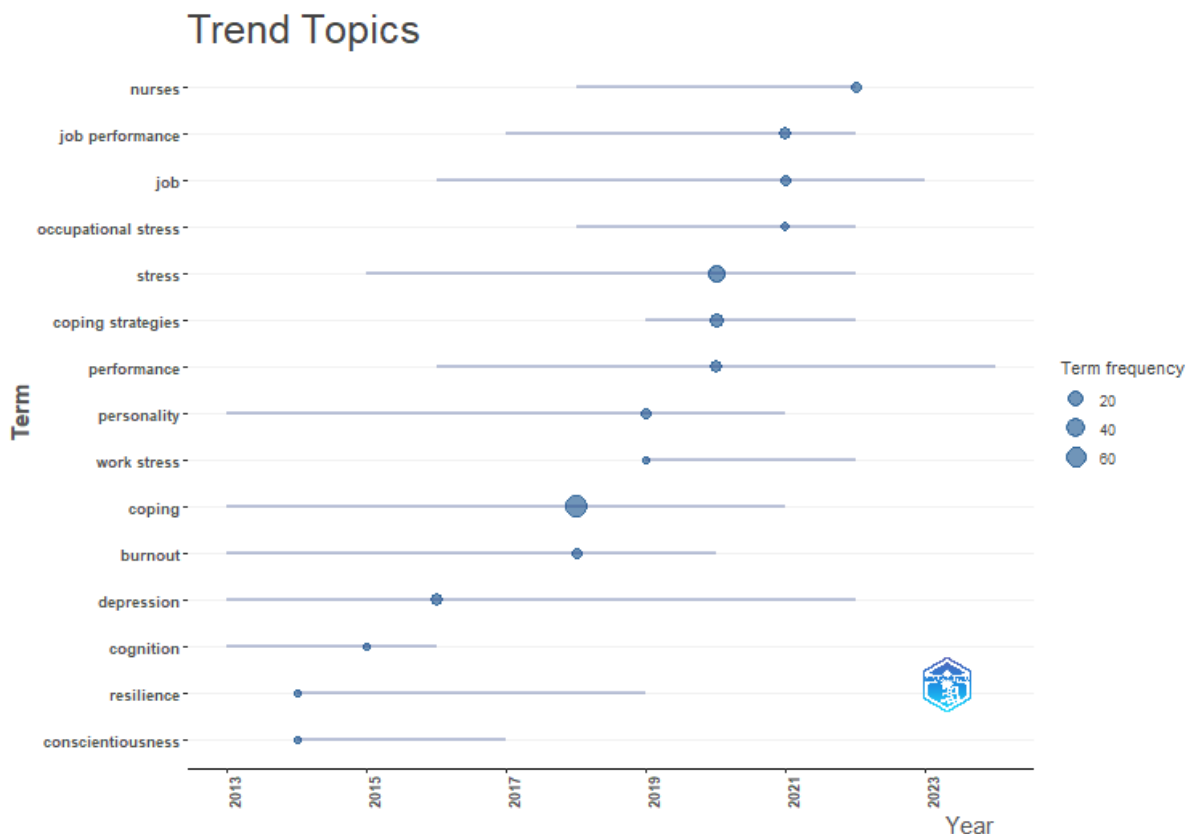


Figure 6: Trending Topic in terms of frequency of use per Year

4. CO-OCCURRENCE NETWORK

The Co-occurrence Network analysis provides a clear understanding of how various concepts and keywords interconnect within the research landscape. Using the Walktrap algorithm, we identified clusters of related terms (Pons & Latapy, 2005), focusing on the top 100 most frequent keywords that represent the core themes of the research. These connections are based on the frequency with which the terms co-occur within documents, offering insights into the relationships among key concepts. To assess the importance of each term in the network, we employed metrics such as Betweenness, Closeness, and PageRank.

Betweenness highlights the role of a term as a bridge, linking different clusters or groups within the network. Terms with high Betweenness scores are crucial for facilitating connections between otherwise disconnected concepts. Closeness measures how efficiently a term can connect to others within the network, emphasizing its ability to rapidly reach various nodes. PageRank evaluates the overall influence of a term by considering not only its direct connections but also the significance of the terms it is linked to. The co-occurrence network is visually represented in Figure 7, while a heat map showing the distribution of these terms appears in Figure 8.

4.1 Cluster Analysis

The network is organized into several clusters, each representing a specific thematic area:

Cluster 1: Performance-Related Concepts

This cluster encompasses terms such as "job performance," "performance," and "work stress." Among these, "job performance" emerges as a pivotal term with a high Betweenness score, indicating its critical role in bridging concepts related to stress and workplace performance. However, its Closeness and PageRank scores are moderate, suggesting it is not as integrally connected to the entire network as some other terms.

Cluster 2: Stress and Emotional Concepts

Key terms in this cluster include "emotional exhaustion" and "customer incivility." While "emotional exhaustion" plays a significant role within its cluster, its connections to the broader network are limited. Its moderate Betweenness score underscores its relevance in linking terms associated with workplace stress.

Cluster 3: Coping and Psychological Factors

This cluster includes terms such as "coping," "stress," "depression," and "anxiety." "Coping" stands out as the most influential term across the network, achieving the highest scores in Betweenness, Closeness, and PageRank. Its central position highlights its vital role in connecting psychological and performance-related concepts, making it a key focus for understanding workplace dynamics.

Cluster 4: Workplace Challenges and Strategies

This cluster focuses on terms like "coping strategies," "occupational stress," and "COVID-19." While "coping strategies" holds a moderate Betweenness score, showing its importance in linking various approaches to managing workplace challenges, it is less central compared to "coping."

Cluster 5: Emotional States

Terms such as "positive affect" and "negative affect" feature in this cluster. These terms are essential for exploring emotional states in the workplace but remain more peripheral within the overall network, as indicated by their lower connectivity scores.

Cluster 6: Specialized Psychological Terms

Terms like "active coping" and "cardiovascular reactivity" represent specialized research areas. Although these terms have lower scores in Betweenness and Closeness, they provide valuable insights into niche topics related to stress and coping mechanisms.

Cluster 7: Neuroscience-Related Concepts

This cluster includes terms like "prefrontal cortex" and "resident-intruder," reflecting the role of neuroscience in understanding workplace behavior. These terms have lower connectivity but contribute to the biological and physiological dimensions of stress and coping research.

Cluster 8: Workplace Behavior

This cluster features terms such as "conscientiousness" and "abusive supervision," which focus on individual traits and supervisor behaviors affecting workplace outcomes. While these terms are less

central in the network, they remain critical for understanding personal and external factors influencing employee behavior.

Cluster 9: Work Outcomes

Key terms in this cluster, including "task performance" and "organizational citizenship behavior (OCB)," focus on the outcomes of workplace behavior. Though their connectivity scores are lower, they highlight the impact of coping mechanisms on organizational performance and employee contributions.

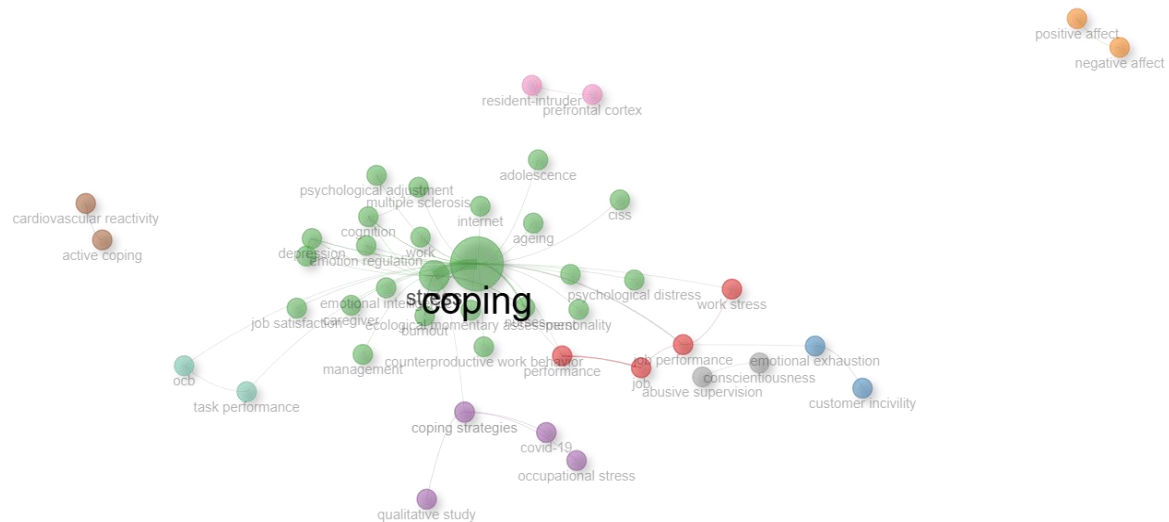


Figure 7: Co-occurrence Network

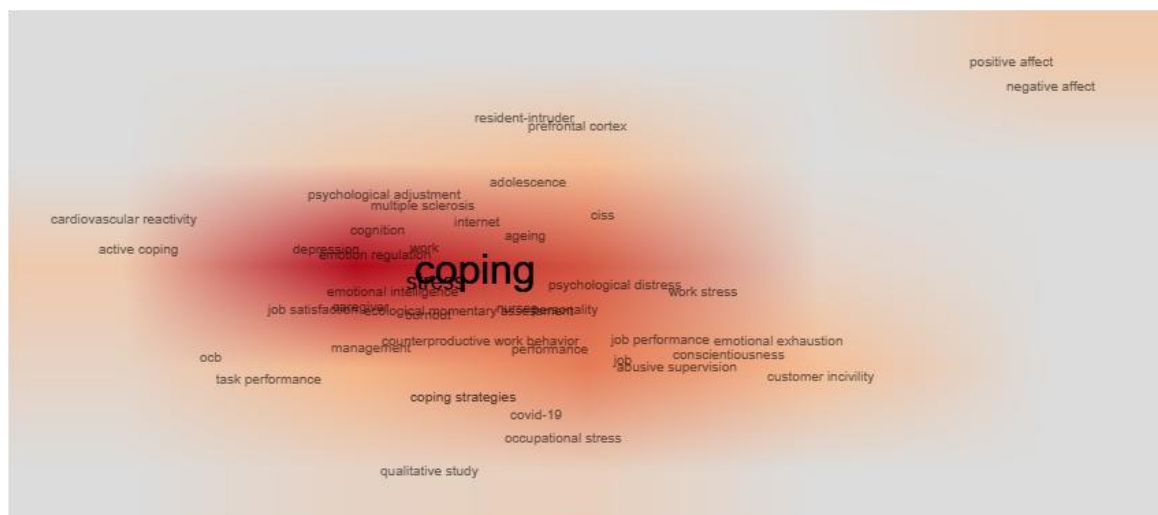


Figure 8: Heat Map of Co-occurrence Network

The Co-occurrence Network analysis highlights "coping" as the central term that bridges key psychological and performance-related concepts. Terms like "job performance" and "emotional exhaustion" play significant but less central roles. The network structure, underscores the dominance of a few central terms while emphasizing the contributions of peripheral, specialized topics. These findings help focus attention on core areas of research while identifying emerging fields that warrant further exploration.

5. COUPLING MAP

In the method used by us, the Coupling Map analysis provides an insightful exploration of the thematic structure within a dataset of 250 academic documents, clustering them based on shared themes, as identified by the authors' keywords (Kessler, 1963; Zupic Cater, 2015; Phan Tan, 2022). This approach of bibliographic coupling—grouping documents by their co-occurrence of keywords—creates intuitive clusters that reflect the major research themes in the field. The local citation score, a measure of each document's citation within the dataset, is used to assess the impact of individual documents. A higher citation score indicates a document's greater influence within its thematic cluster, suggesting its centrality and significance to ongoing research in that area.

The clustering process utilizes the Walktrap algorithm, which detects groups of documents based on their connectivity within the citation network, allowing for the identification of cohesive subgroups of research. Each cluster is then labeled with up to three keywords derived from the authors' own terminology, ensuring that the thematic focus of each cluster is both relevant and clearly defined. The clusters' significance is also measured through frequency, centrality, and impact scores. The frequency metric shows how many documents are part of each cluster, with higher frequencies indicating a more well-established theme. Centrality reflects the relevance of a cluster within the broader research field, while impact quantifies the influence of the documents within the cluster, measured by their citation scores.

We have visualized these clusters as a spatial map (Figure 9) drawn from the data in the Table 3, which together offer a comprehensive view of the relationships between documents and clusters. The map allows for an immediate visual understanding of how different thematic groups relate to each other, while the network illustrates the connections among documents, providing a deeper insight into the structure of the research field. The table further summarizes these relationships, listing the documents within each cluster and offering key metrics such as frequency, centrality, and impact.

The Red Cluster (Group 1) emerges as the largest and most central group, with 30 documents focusing on themes such as coping strategies and job performance. This cluster, with high centrality and impact scores, represents a foundational area of research, central to the field's understanding of how coping mechanisms affect job performance. The Orange Cluster (Group 5), while slightly smaller, with 25 documents, addresses emotional exhaustion and its relationship with job performance, positioning itself as a significant but specialized niche within the broader field. Similarly, the Purple Cluster (Group 4), containing 18 documents, centers on stress, coping strategies, and their impact on performance, reflecting an emerging area of interest that continues to grow in significance, as evidenced by its moderate centrality and impact scores.

Smaller clusters like the Green Cluster (Group 2) and the Blue-Green Cluster (Group 3) represent more specialized or emerging themes. The Green Cluster, with only three documents, focuses on coping styles and adaptation, while the Blue-Green Cluster addresses attachment and coping in the context of Asian American employees. Despite their smaller size, these clusters hold notable influence, as reflected in their impact scores, showing that specialized areas can still contribute significantly to the broader research discourse. On the other hand, clusters like the Pink Cluster (Group 13) are peripheral, with low centrality and minimal impact, suggesting they are nascent or less connected to the larger research network. This cluster, for instance, revolves around themes such as the broaden-and-build theory and positive feedback, indicating that these concepts are not yet widely integrated into mainstream research but may represent areas ripe for further exploration.

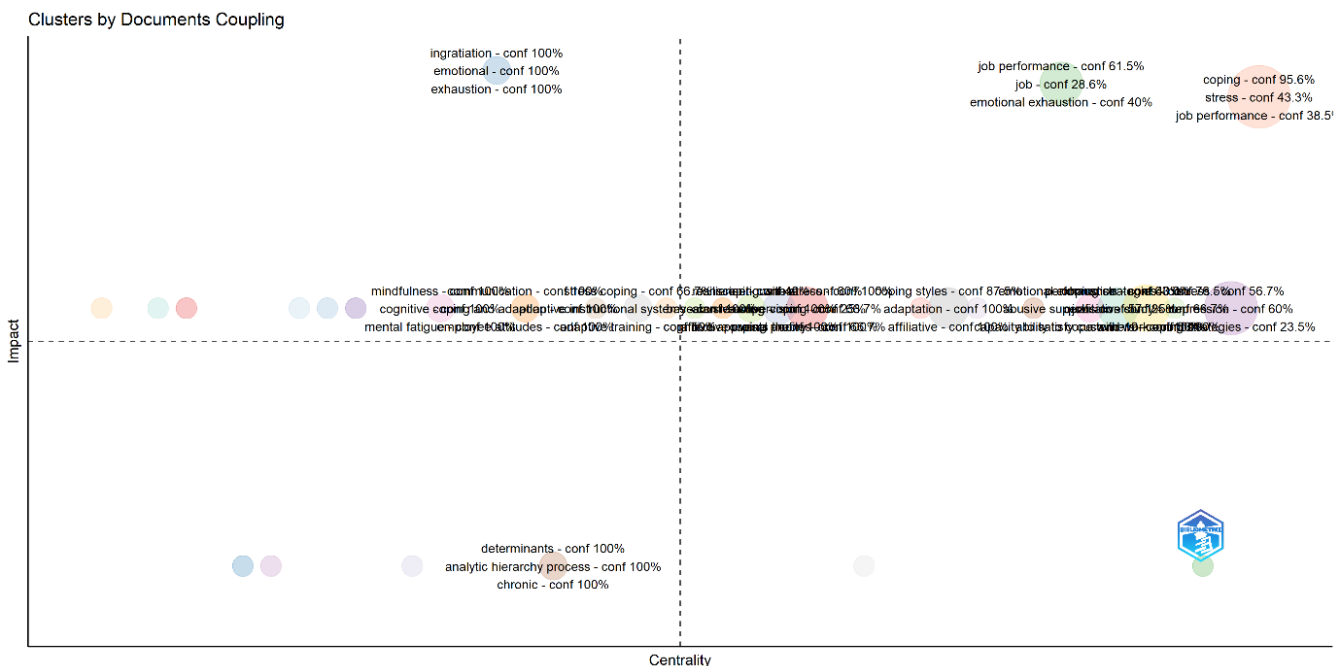
The coupling map also highlights the Normalized Local Citation Score (NLCS), which indicates the prominence of specific works within the clusters. Cluster 1 stands out as the dominant group, featuring influential works such as LU L (2010) and NANDKEOLYAR AK (2014), which have high NLCS scores of 4.09 and 2.70, respectively. These papers, alongside others in the cluster, underscore the foundational role of psychological and behavioral dynamics in workplace settings, particularly focusing on occupational health and job performance.

Clusters 2 and 3 in Figure 9 highlight niche research areas. For example, Helkala K (2016) in Human-Computer Interaction suggests that the integration of digital tools in workplace psychology is an emerging trend, while Cluster 3 includes studies on hospitality management and workplace health, showing the application of psychological theories in specific sectors. Cluster 4 represents a more diverse range of applications, spanning psychology in education, organizational behavior, and workplace environments, with studies examining the psychological effects of workplace design and social behaviors.

In conclusion, the coupling map reveals both well-established and emerging themes in the academic literature, underscoring the interdisciplinary nature of research in workplace psychology and related fields. It highlights foundational areas of study, such as coping strategies and job performance, while also pointing to niche or emerging areas that may shape future research, such as human-computer interaction and sector-specific applications. The inclusion of confidence scores, citation scores, and cluster metrics ensures that these findings are robust and meaningful, providing a clear structure for understanding the intellectual landscape of the field.

Table 4: Coupling Map Data Showing Clusters and Centrality Scores

Label	Group	Frequency	Centrality	Impact	Color
coping - conf 64% job performance - conf 40% coping strategies - conf 37.5%	1	30	1.422	1.256	Red
adaptation - conf 100% coping strategies - conf 12.5% coping styles - conf 33.3%	2	3	0.587	1	Green-Blue
coping - conf 12% asian american employees - conf 100% attachment - conf 100%	3	5	0.843	1	Green
coping - conf 16% job performance - conf 30% stress - conf 30%	4	18	0.869	1	Purple
emotional exhaustion - conf 100% performance - conf 50% job - conf 57.1%	5	25	1.268	1.063	Orange
coping strategies - conf 25% china - conf 100% education - conf 100%	6	2	0.417	1	Purple-Red
communication - conf 100% employee attitudes - conf 100% employee productivity - conf 100%	7	1	0.346	1	Pink
coping - conf 4% health and wellness - conf 100% police-community - conf 100%	8	1	0.42	1	Gray
coping strategies - conf 12.5% higher education setting - conf 100% internet gaming disorder - conf 100%	9	1	0.258	1	Teal
cardiac vagal activity - conf 50% dart throwing - conf 100% heart rate variability - conf 100%	10	1	0.406	0	Salmon
alpha-amylase - conf 100% anxiety - conf 50% cardiac vagal activity - conf 50%	11	1	0.544	1	Light Blue
attitude to challenge - conf 100% awareness - conf 100% boredom-coping - conf 100%	12	1	0.999	0	Light Purple
broaden and build theory - conf 100% positive feedback - conf 100% self-control - conf 100%	13	1	0.23	1	Light Green

Figure 9: Cluster Map Drawn as Impact vs Centrality of Each Cluster

6. THEMATIC ANALYSIS

Thematic analysis effectively uncovers nuanced relationships between coping strategies and performance outcomes across diverse contexts. For instance, Atrian and Ghobbeh (2023) examined how technostress negatively impacts job performance and found that interventions like training programs can mitigate these effects. Additionally, a study on foreign teachers in China highlighted that active coping strategies enhance adaptation and performance (Yi et al., 2020). Similarly, research on aid workers identified effective coping mechanisms that maintain psychological well-being and job performance (Young et al., 2018). These studies demonstrate the utility of thematic analysis in providing rich insights into sustaining performance under stress.

We conducted a thematic analysis of the literature to explore the relationship between coping strategies and performance-related outcomes. For this, we focused on descriptor terms (DE) from our dataset. We analyzed the 250 most relevant terms, ensuring each appeared at least twice ($\text{minfreq} = 2$). To keep the analysis straightforward, we used unigrams ($\text{ngrams} = 1$) without applying word stemming. We set the visualization size to 0.1 and labeled three key clusters ($\text{n.labels} = 3$). The clustering was performed using the Walktrap algorithm, and we did not apply repulsion between terms or adjust for overlaps. This approach allowed us to identify meaningful patterns and connections in the data.

6.1 Introduction to the Thematic Map

The thematic map divides the clusters into four quadrants: Motor Themes, Basic and Transversal Themes, Emerging or Declining Themes, and Highly Specialized/Niche Themes (Callon et al., 1991). Each quadrant reflects the relative importance (centrality) and maturity (density) of the themes in the field. The placement of clusters in this map provides valuable insights into the research landscape. The Figure 11 shows the bifurcation of the thesmes in different qudrants beased on the density and centrality dimensions. The clusters are actually networksof Authors keywords clustered together on the basis of network centrality scores, , as depicted in Figure 12.

6.1.1 Motor Themes

The motor themes in the thematic map (Figure 11) and network (Figure 12) are critical for understanding the relationships between stress, coping mechanisms, and job performance. These

themes are highly developed due to their strong Callon Centrality and Callon Density, indicating they are well-connected and influential within the field. One of the most significant motor themes is Coping, which holds the highest Callon Centrality (4.2448) and Cluster Frequency (184). This places it at the center of the thematic network, emphasizing its dominant role in research related to stress responses. Coping is linked to a variety of subthemes, such as coping strategies and coping styles, which stem from it and help define how individuals handle stress. For instance, problem-focused coping and emotion-focused coping are two critical sub-nodes under the coping theme. Problem-focused coping addresses the stressor directly, while emotion-focused coping involves managing the emotions related to the stress. Both strategies play a crucial role in determining job performance and overall well-being, as they help individuals mitigate the negative effects of stress.

Another important motor theme is coping strategies, which has a Callon Centrality of 1.471 and Density of 46.32. This theme is closely related to job performance (centrality: 1.233, density: 36.33), illustrating how the strategies individuals use to cope with stress directly influence their work performance. The close connection between these two themes suggests that effective coping mechanisms can improve job performance, even under challenging conditions. Coping strategies, such as problem-solving and emotional regulation, allow employees to maintain productivity and manage stress more effectively, leading to better outcomes in the workplace.

Additionally, the coping styles theme, with a Callon Centrality of 0.337 and Density of 50, highlights the importance of different ways individuals cope with stress. The primary distinction here is between problem-focused coping and emotion-focused coping, which are key to understanding how people respond to stress. These coping styles play a role in mediating outcomes like psychological distress and resilience, which further influence job performance. Problem-focused coping tends to be associated with resolving stressors directly, while emotion-focused coping helps individuals manage emotional responses to stress. Both styles are crucial for understanding how employees handle stress and maintain performance levels at work.

In conclusion, coping serves as the backbone of research in stress and performance, with related themes like coping strategies and coping styles branching out to form a network of interconnected ideas. These themes are integral to understanding how stress impacts job performance and well-being. By focusing on how individuals cope with stress—whether through direct problem-solving or emotional regulation—researchers can better understand how to support employees in high-stress environments, ultimately improving both their mental health and work performance.

6.1.2 Basic and Transversal Themes

Basic and transversal themes are crucial for the foundation and development of research in the field, providing essential support for more specialized, motor themes. These themes are foundational and often less specialized but still play a vital role in shaping our understanding of the broader research landscape.

One of the key basic themes is job satisfaction (centrality: 0.708, density: 53.88), which acts as a cornerstone in understanding how coping mechanisms influence workplace outcomes such as job performance and burnout. Job satisfaction has a moderate Callon Centrality, indicating that while it is not the most central theme, it is still significantly connected to other concepts in the network. Job satisfaction is linked to job crafting and affective response, which suggests its indirect role in employee creativity and emotional well-being. The relationship between job satisfaction and these subthemes indicates that when employees are satisfied with their work, they are likely to engage in behaviors that enhance their work environment and overall emotional state, further affecting their job performance.

Another important basic theme is management (centrality: 0, density: 33.33), which highlights the practical application of research in organizational settings. Management has a relatively low centrality, signifying that it plays a more supportive rather than a leading role in the thematic network. Its connection to qualitative research indicates that management practices are often studied in-depth to understand how they influence coping strategies and productivity in the workplace.

Although management itself is not the most central theme, it is essential for analyzing and improving organizational practices to support employees, particularly in coping with stress.

Psychological distress (centrality: 0, density: 66.67) is another critical basic theme. With a high density, it indicates a well-established area of research focused on understanding the mental health challenges faced by employees in stressful work environments. Psychological distress is linked to themes like emotion-focused coping, showing how individuals respond emotionally to stressors at work. The strong relationship between psychological distress and emotion-focused coping highlights how employees often rely on emotional regulation strategies to manage stress and maintain well-being, underlining its importance in understanding employee mental health in the workplace.

Finally, performance (centrality: 0.537, density: 36.52) is a moderately central and dense theme in the thematic network. Performance plays a supportive role in coping research, as it is influenced by how well employees cope with stress and adapt to work challenges. The link between performance and themes like coping strategies and resilience shows the pathways through which stress adaptation leads to improved productivity. Employees who cope effectively with stress, whether through problem-solving or emotional regulation, tend to perform better in their jobs. This connection emphasizes the importance of developing coping strategies that promote resilience and improve job performance.

In summary, basic and transversal themes provide the foundation for understanding how coping mechanisms and workplace dynamics influence employee outcomes. Themes like job satisfaction, management, psychological distress, and performance support and contextualize the motor themes, helping to frame research questions and identify key areas for further investigation. These themes ensure a holistic understanding of the relationship between coping, stress, and performance in the workplace.

6.1.3 Emerging or Declining Themes

Emerging or declining themes in Figure 11 represent evolving or fading areas of interest in the field, offering valuable insights into how research trends shift over time. Emerging themes often have low centrality but show increasing relevance, while declining themes typically exhibit lower activity or fading importance.

One emerging theme is resilience (centrality: 0.316, density: 20), which has a low Callon Centrality and density, indicating that it is still in its early stages of development within the research community. However, resilience is gaining prominence as a critical factor in helping individuals maintain positive outcomes during stressful situations. In the thematic network, resilience connects with emotion-focused coping and job crafting, illustrating its growing role in stress management and its potential to help individuals adapt to challenging work environments. Its emerging status signifies that researchers are increasingly focused on understanding how resilience can be cultivated and how it mitigates the negative impacts of stress.

Another emerging theme is the hippocampus (centrality: 0.25, density: 50), which focuses on a specific area of the brain associated with stress response and memory. The hippocampus has a relatively low centrality, but its density suggests that it is attracting more attention in relation to stress and coping research, particularly in the context of physiological processes. Its connection to heart rate variability suggests that researchers are exploring how the brain's physiological responses to stress impact coping mechanisms and overall well-being. While it remains a niche area of study, it is emerging as an interesting link between stress management and biological responses.

Employee coping (centrality: 0, density: 50) is another emerging theme that highlights personalized coping strategies in workplace settings. With low centrality, this theme points to research focused on understanding the diverse coping mechanisms individuals employ based on their unique situations. The theme's connection to management demonstrates how organizations are increasingly interested in understanding and facilitating coping mechanisms to improve productivity and reduce stress. This theme emphasizes the need for tailored approaches to coping, as different employees may require different strategies to manage workplace stress effectively.

Finally, mindfulness (centrality: 0, density: 75) is another emerging but dense theme, which, despite its low centrality, has high density. This indicates that mindfulness is becoming an increasingly important coping mechanism in stress research. Mindfulness practices, such as meditation and mindfulness-based stress reduction, are linked to reducing stress and improving performance. Its growing presence in the network suggests that mindfulness is seen as a potential solution for improving employee well-being and performance, making it a prominent area for future research.

In conclusion, emerging themes like resilience, the hippocampus, employee coping, and mindfulness are gaining traction in stress management research. These themes highlight evolving interests in understanding how individuals cope with workplace stress and how biological, psychological, and behavioral factors influence these processes. While these themes are still in development, their rising significance indicates important shifts in the field toward more personalized, holistic approaches to stress and performance.

6.1.4 Highly Specialized/Niche Themes

Highly Specialized or Niche Themes in research are characterized by low centrality but high density. This means that while these themes may not be widely connected with other concepts, they are concentrated areas of focus that attract specialized research. These themes usually explore unique or emerging topics that appeal to specific research communities and contribute valuable insights to a broader field.

One such theme is Heart Rate Variability (HRV) and Cardiac Vagal Activity, which are both highly specialized topics in stress and coping research. HRV (centrality: 0, density: 62.5) and cardiac vagal activity (centrality: 1, density: 75) both have low centrality but high density, indicating significant research attention within their specific fields. HRV is linked to emotional regulation and stress responses, examining how the variation in heartbeats correlates with stress levels. Cardiac vagal activity, on the other hand, relates to the influence of the vagus nerve on heart rate, reflecting the body's parasympathetic response to stress. Together, these themes suggest a growing interest in the physiological mechanisms of stress management, connecting biological processes to coping strategies and job performance. Despite being niche, their high density indicates a strong focus on understanding the physiological side of stress in workplace well-being.

Another niche theme is Adolescence, which focuses on coping mechanisms in younger populations (centrality: 0.5, density: 93.75). This theme has a very high density, showing that there is considerable research in this area, despite its relatively low centrality in the broader field of stress research. Adolescence is a critical period for developing coping strategies, and research in this area looks at how young individuals manage emotional challenges and stress, particularly in the contexts of education, family, and social pressures. The theme highlights the vulnerability of adolescents, who experience heightened emotional responses during this phase. While this theme is more specialized, it plays an important role in advancing stress management strategies for younger populations, particularly within educational and family contexts.

Reversal Learning (centrality: 0, density: 50) is another highly specialized theme that focuses on decision-making under stress. This area of research looks at how individuals adjust their decision-making strategies when faced with changing conditions or negative outcomes. Reversal learning is relevant for understanding cognitive flexibility, which is how individuals adapt their behavior in response to new information or stress. With low centrality, it is not yet widely connected with other stress research areas, but its high density suggests that it is gaining significance within specialized fields like cognitive neuroscience and psychology. This theme explores how stress impacts decision-making and resilience, offering valuable insights into how people adjust their responses to stressors.

In summary, these highly specialized or niche themes—heart rate variability, cardiac vagal activity, adolescence, and reversal learning—are crucial for expanding our understanding of the physiological, psychological, and cognitive aspects of stress. These themes, while not as widely connected to other areas of research, provide valuable insights into how specific factors influence stress management and coping in unique populations. Despite their specialized focus, these themes have significant potential

to deepen our understanding of stress responses and inform interventions in areas such as neuroscience, adolescent mental health, and decision-making under stress.

6.1.5 Unexplored or Peripheral Clusters

Unexplored or Peripheral Clusters refer to themes that, although present within the dataset, have minimal centrality and density in the thematic network. These clusters are not as influential or widely connected to other major themes, but they still provide valuable insights, often offering supplementary perspectives to more central themes. These peripheral clusters contribute to the broader understanding of stress and coping but are more niche in focus.

One such peripheral cluster is Qualitative Research, which has a centrality of 0 and density of 50. This theme does not serve as a core focus of current research but plays an important role by providing essential methodological support for understanding workplace stress and coping. Qualitative research often uses methods such as interviews, case studies, or ethnographies to explore how individuals experience and respond to stress. While it is not the dominant approach in the study of coping, qualitative research offers important insights into personal experiences and workplace dynamics that complement more central themes like coping strategies and stress management.

Another peripheral cluster is Exercise, with a centrality of 0.5 and density of 62.5. This theme focuses on the role of physical activity as a coping mechanism for stress. Exercise is connected to resilience and mindfulness, reflecting the growing understanding of the positive impact of physical activity on mental health and well-being. Although its centrality is moderate and density is relatively high, exercise remains somewhat peripheral compared to major themes like coping strategies and psychological distress. Nonetheless, the relationship between exercise and stress management highlights how physical activity can effectively reduce stress, improve mood, and enhance overall health, though it is not the primary focus in stress research.

Affective Response is another peripheral theme (centrality: 0, density: 50) that examines emotional reactions and how they influence coping mechanisms. This theme explores how individuals respond to stress with emotions like anger, anxiety, or sadness. Although it has low centrality, affective responses still play a role in shaping coping strategies. The theme suggests that emotions, both positive and negative, impact how individuals cope with stress in the workplace, providing foundational knowledge that supports the understanding of how emotions interact with coping styles.

Communication, with a centrality of 0.25 and density of 62.5, refers to the role of interpersonal communication in managing stress at work. Effective communication between colleagues, supervisors, and employees is crucial for stress management, as it helps create supportive relationships and provides mechanisms for stress relief. While not central to the research on coping, communication is an important factor in understanding the social and relational dynamics that influence how employees cope with stress. Its connection to resilience and mindfulness indicates that communication can support positive stress management practices, even though it may not dominate the broader discussions on stress management.

The unexplored or peripheral clusters—such as qualitative research, exercise, affective response, and communication—are important for providing deeper, supplementary insights into how stress and coping work in different contexts. These themes offer valuable contributions to the understanding of stress and coping, adding complexity and richness to the core research areas like coping strategies and psychological distress. They highlight the importance of considering personal, physical, emotional, and social factors when exploring how individuals manage stress and its impact on performance in the workplace.

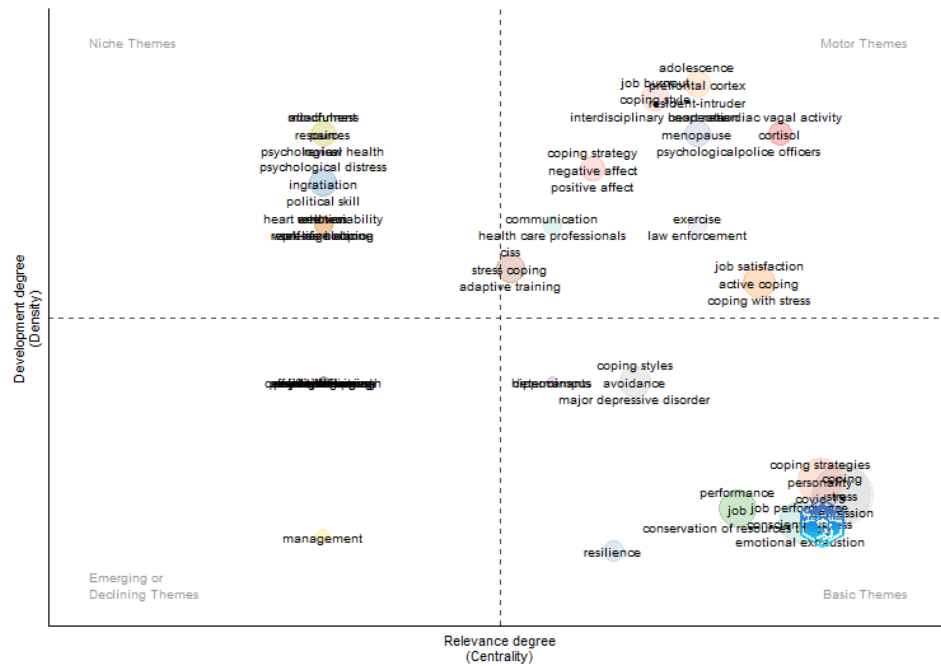


Figure 10: Thematic showing the Placement of Various Clusters in One of the Four Quadrants

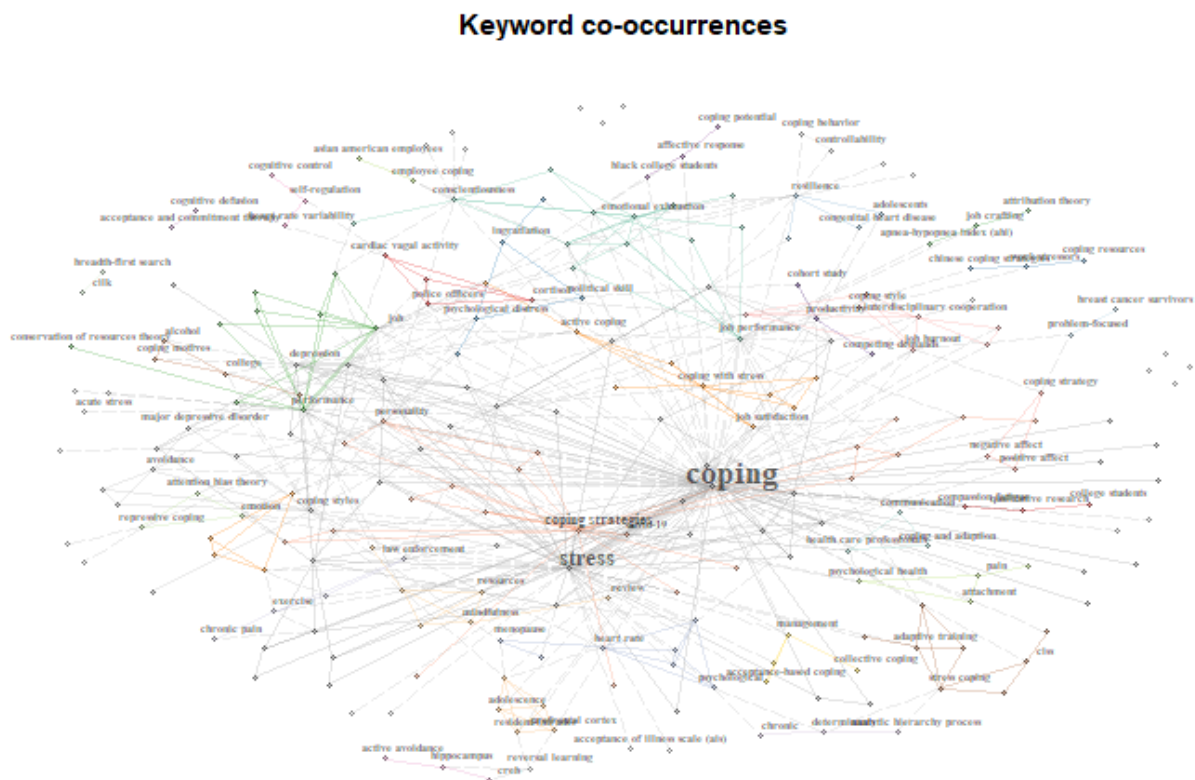


Figure 11: Keyword Co-occurrence Helpful in Defining Thematic Clusters

By analyzing the thematic map (Figure 11) and network (Figure 12), we observed that clusters like *coping*, *job performance*, and *coping strategies* dominate the field as motor themes, driving the research agenda. Meanwhile, emerging areas like *resilience* and physiological responses show promising avenues for future exploration. Peripheral nodes like *qualitative research* and

communication provide methodological and contextual insights. This holistic analysis enables us to identify gaps and prioritize areas for future research.

7. IDENTIFIED RESEARCH GAPS

When reviewing the existing research on coping, stress, and job performance, we found several important gaps that need more attention in future studies. One major gap is the lack of research on coping strategies in underrepresented regions like India, Brazil, and South Africa. Most studies come from countries like the USA and China, which means we are missing out on important cultural perspectives. Additionally, the role of cultural differences in shaping coping strategies is not discussed enough, which makes it harder to apply findings to different cultures.

Another gap is the limited use of qualitative research methods, like interviews and case studies. These methods help us understand personal experiences and how people deal with stress in real life, but they are not used enough in the current research. Also, while topics like resilience and mindfulness are mentioned, they are not fully explored, especially over long periods of time. Without longitudinal studies, we don't know how these themes change and interact with other coping strategies as time goes on.

Personality traits, like conscientiousness, and emotional responses, such as emotional exhaustion, are also not fully considered in understanding how coping affects job performance. Since these traits influence how people handle stress, more research is needed on how they interact with coping strategies. The impact of modern work challenges, like hybrid and remote work environments, is another overlooked area. As more companies offer flexible work arrangements, it's important to study how these environments affect how people manage stress.

Lastly, we noticed that there is not much use of new methods, like machine learning and dynamic modeling, which could give us deeper insights into coping strategies and job performance. These methods could help predict how people cope with stress and perform at work.

7.1 Specific Findings in the Article

The article also points out some specific gaps in the research. One finding is the limited focus on emerging topics like heart rate variability and cardiac vagal activity, which are not fully linked to broader coping frameworks. Another gap is the lack of connection between adolescent coping mechanisms and workplace dynamics, missing an opportunity to link these insights to the workplace.

The article also shows a decline in research growth, with a 17.53% decrease in the number of published articles each year. This decline suggests that more attention and investment are needed to keep the field moving forward. Additionally, there is little international collaboration, with only 7.2% of studies involving researchers from different countries. This limits the diversity of ideas and reduces how applicable the findings are worldwide.

Inconsistent publication trends also suggest that more regular research is needed. Keeping up a steady flow of contributions will help the field grow. Furthermore, topics like exercise, emotional responses, and communication, which are important for stress management and performance, are not given enough focus, even though they are relevant.

Another important finding is that workplace-level factors, like leadership support and team dynamics, are not explored enough. How organizations help employees manage stress is an area that needs more research. Finally, while physiological mechanisms like the hippocampus and cardiac vagal activity are mentioned, their role in workplace coping and performance is not fully understood. This is another area that requires more attention.

7.2 Recommendations for Future Research

To fill in the gaps we've identified, we suggest several ideas for future research. First, it's important to expand research worldwide. We recommend promoting more international collaborations and studies that look at different cultures. This will help bring in voices from underrepresented regions and help

us understand how cultural differences affect coping strategies. This way, the research can apply to people from all over the world.

We also need to bring together different fields of study. By combining knowledge from neuroscience, psychology, and management, we can create a more complete understanding of coping strategies. Research into new areas like **resilience**, **mindfulness**, and physical responses to stress (such as heart rate variability) will help us better understand how to manage stress and improve performance.

Looking at the role of organizations is another important area. We should explore how workplace policies, leadership styles, and teamwork affect how people cope with stress. This research could show organizations how to create healthier work environments that help improve employee performance. It would also be helpful to use new technologies like machine learning to study complex patterns between coping and job performance.

We also recommend doing more research that focuses on people's personal experiences. Methods like interviews or in-depth studies of people's lives will give us a better understanding of stress and coping. Long-term studies will be important to see how things like resilience and mindfulness change over time and how they affect job performance.

Finally, we need to explore how personality traits and emotions influence how people cope with stress. Understanding how traits like conscientiousness or emotional exhaustion affect coping strategies will give us a clearer picture of how stress and coping work together.

Looking at the gaps we found, here's where we suggest future research should focus. First, we recommend giving high priority to studying global perspectives, resilience, mindfulness, and how organizations impact coping. These areas are crucial for understanding how people handle stress at work and how their environment affects them. Next, moderate priority should be given to using qualitative research methods, looking into new physical responses to stress, and exploring how personality traits influence coping (Segerstrom & Smith). Lastly, low priority should go to more specialized topics, like reversal learning or adolescent coping, unless they are directly related to the workplace.

8. PROPOSED CONCEPTUAL RESEARCH MODEL

Building on the gaps and findings identified in the bibliometric analysis, we propose a conceptual research model to explore the relationship between coping strategies and job performance outcomes. This model is designed to address underexplored themes while integrating key moderating and mediating variables. It provides a comprehensive framework that considers both individual and organizational factors, as well as the dynamic nature of stress and coping over time.

The Integrated Framework for Coping, Stress, and Performance offers a multilevel perspective, examining how antecedents, mediators, moderating factors, and outcomes interact. The model, as in Figure 12, highlights the role of coping mechanisms in shaping job performance and well-being, with a particular focus on how these dynamics evolve over both short-term and long-term periods. Furthermore, it emphasizes the importance of feedback loops, where outcomes influence input variables, allowing the system to adapt to changing circumstances and continually reshape the coping experience.

The framework consists of several core components. Input Variables (Antecedents) represent the starting points that influence stress, coping mechanisms, and subsequent outcomes. These include individual factors such as personality traits (e.g., conscientiousness, emotional stability, and resilience), contextual factors like leadership style and organizational culture, and external factors such as economic pressures or job role clarity. Together, these factors shape how stress is perceived and managed in different environments.

Mediating Variables help explain how input variables translate into outcomes. These include coping strategies, such as problem-focused coping (where individuals address the stressor directly), emotion-focused coping (which involves managing emotional responses), and avoidance coping (which

involves evading the stressor). Physiological responses, such as heart rate variability, cardiac vagal activity, and cortisol levels, also play a role, reflecting the body's stress response and the individual's ability to regulate stress.

Moderating Variables influence the strength or direction of the relationships between antecedents, mediating variables, and outcomes. These include organizational support, which impacts how employees cope with stress, job resources like autonomy and support, personal traits such as self-efficacy and adaptability, and temporal factors that recognize how stress and coping evolve over time. Short-term stressors require immediate responses, while long-term stress calls for sustained coping strategies and adaptation.

One of the key features of this framework is the presence of Feedback Loops. These loops illustrate how outcomes can influence input variables, creating a dynamic system. For instance, increased job satisfaction may lead to greater resilience and better organizational support, enhancing coping abilities. This dynamic nature ensures that stress and coping mechanisms continue to adapt to changing work environments and circumstances over time.

Finally, the Output Variables (Outcomes) reflect the consequences of how stress is managed and its impact on performance and well-being. These include job performance, which encompasses task performance, creativity, and contextual performance like helping colleagues; well-being, which includes job satisfaction, burnout, and emotional exhaustion; and behavioral outcomes such as organizational citizenship behaviors (OCB) or counterproductive work behaviors (CWB), like absenteeism or workplace incivility.

This proposed framework in Figure 12 emphasizes the complex and dynamic nature of the relationships between stress, coping, and performance. By focusing on the interaction of input, mediating, and moderating variables, as well as the feedback loops, this model provides a deeper understanding of how coping strategies influence job performance and well-being over time.

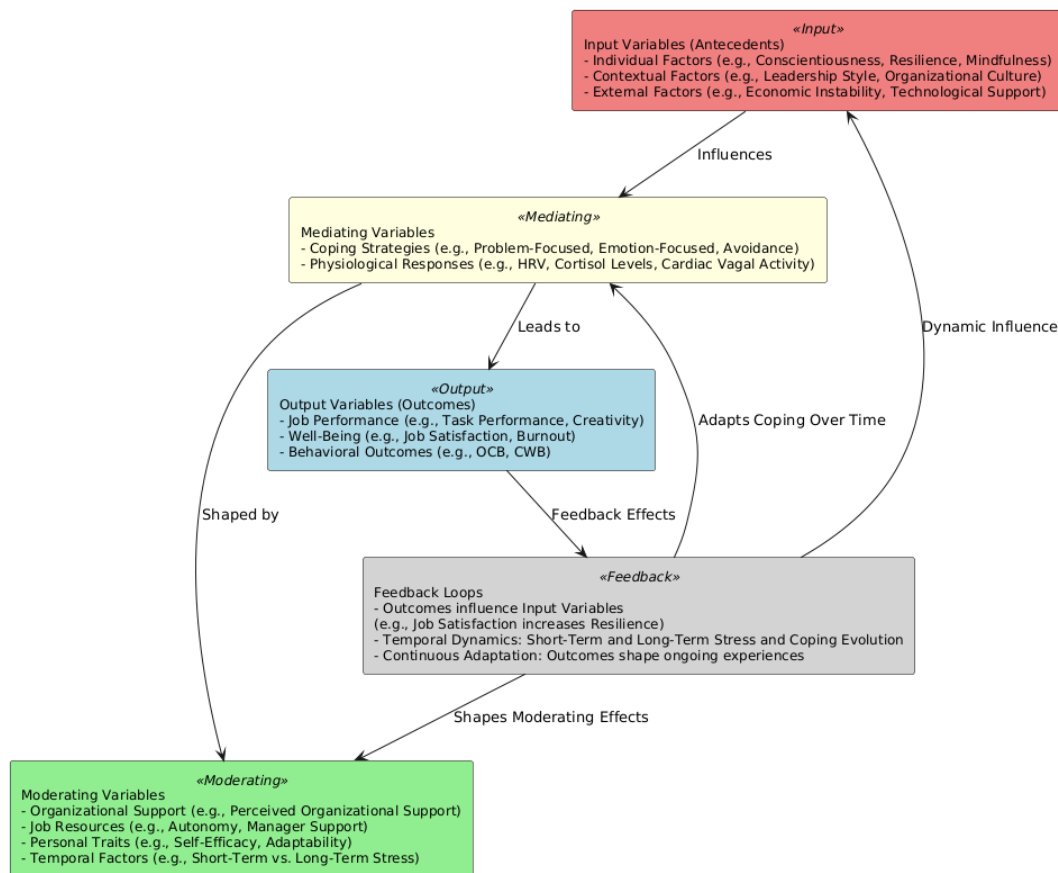


Figure 12: Proposed Conceptual Research Model based on the Bibliometric Analysis

The Integrated Framework for Coping, Stress, and Performance shows how different factors work together to influence how people handle stress. Input variables, like personal traits (e.g., resilience), workplace factors (e.g., leadership style), and external pressures (e.g., economic challenges), affect coping strategies and physical responses to stress. These are influenced by moderating factors, such as support from the organization, available resources, and personal traits like adaptability. All these interactions shape important outcomes like job performance, well-being, and behaviors at work.

The model highlights that stress and coping are not static—they change over time. Coping strategies and their effects evolve in the short and long term. Feedback loops make the system dynamic, meaning the outcomes (like job satisfaction or burnout) can influence the original factors (like resilience or organizational support). This helps the system adapt to new challenges. Over time, the ongoing effects of stress and coping shape a person's performance and well-being, making these feedback loops essential for understanding how stress management works in real-life settings.

This model is carefully designed to reflect current trends in research, offering a practical approach to understanding stress, coping, and performance in the workplace. It aligns well with modern research by incorporating important themes such as resilience, mindfulness, and physiological responses. These themes have become central to recent studies because they significantly impact both employee well-being and job performance. By including these themes, the model ensures that it is relevant to the latest discussions on workplace stress and performance.

The model also takes a dynamic perspective, recognizing that stress, coping strategies, and performance are not fixed but evolve over time. Coping strategies may work well in the short term but not in the long run, and understanding how these factors change is crucial to improving job performance. This approach helps us see the ongoing nature of stress and how it influences both employees and organizations in the long term.

Another key strength of the model is its practical relevance. It highlights actionable variables like leadership style, organizational support, and the use of technological tools to manage stress. These factors are essential for improving workplace outcomes and employee well-being. By focusing on these areas, the model offers practical guidance for organizations looking to support employees and enhance their performance.

Lastly, the model brings together different areas of research, including psychology, physiology, and workplace dynamics, providing a well-rounded view of how stress and coping affect job performance. This interdisciplinary approach is important for creating comprehensive solutions to workplace stress, as it combines multiple perspectives to develop more effective strategies.

In summary, this model is not only grounded in current research but also offers a practical and well-rounded approach to improving stress management, job performance, and overall employee well-being in the workplace.

9. CONCLUSION

This analysis helps us better understand how coping strategies affect job performance. By looking at trends, themes, and research from different countries, we see how this field has grown and where more research is needed (Aria & Cuccurullo, 2017; Page et al., 2021).

The analysis shows that coping strategies are a key factor in managing stress at work and improving job performance. Specifically, problem-focused coping is shown to be most helpful for improving job performance, while emotion-focused and avoidance coping have different effects depending on the situation (Lu et al., 2010; Nandkeolyar et al., 2014). Factors like emotional control, personality traits (like conscientiousness), and workplace culture also play a big role in how well these strategies work (Peng et al., 2012; Kishita & Shimada, 2011).

We found that countries like the USA and China lead the research, while regions like Africa and South America have less representation (Zappalà et al., 2024). There is a need for more global and cross-

disciplinary research to understand how different cultures and workplace settings influence coping (Young et al., 2018).

New topics like resilience, mindfulness, and the study of physiological responses (like heart rate variability) are gaining attention and may help us understand stress better (Lambert et al., 2014; Kratz et al., 2011). These approaches focus not just on the mind but also on the body, which could offer new ways to manage stress at work.

However, the research field has slowed down, and there's still not enough focus on areas like coping in young people and the long-term effects of coping strategies. More research is needed in these areas, and future studies should use new methods like machine learning to predict coping outcomes and performance (Atrian & Ghobbeh, 2023).

Future research should aim to explore several key areas. First, it should encourage more studies that involve different cultures and combine ideas from various fields (Yi et al., 2020). Second, researchers could look at emerging topics like mindfulness and how people's physical responses change over time (Lambert et al., 2014). Third, using new technologies could help make better predictions about how coping affects performance (Aria & Cuccurullo, 2017). Finally, studies should investigate how organizations can use leadership and policies to support healthy coping strategies.

Overall, this study shows how important coping strategies are for job performance and well-being. By addressing the gaps in research, we can help create better ways to support employees and improve success in the workplace.

AUTHORS' DECLARATION

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Declaration of Interest Statement.

In addition, we ensure that there is no conflict of interest or pecuniary interest associated with the present study.

Author Contributions

Author 1: Conceptualized the research framework, performed literature review, obtained data from Scopus and Web of Science, conducted analysis and drafted the manuscript.

Author 2: Supervised the review, helped in refinement and approved the final article.

Data Availability Statement

The data used in this study are derived from Scopus and Web of Science, which require institutional or personal subscription to provide access to their content.

Disclosure Statement

We state that the outcome of this research was not influenced by any financial or personal interests.

REFERENCES

- [1] Abdian, T., Kargarjahromi, M., & Ramezanli, S. (2022). The effectiveness of coping strategies training on nurses' occupational stress in Jahrom hospitals. *Bangladesh Journal of Medical Science*, 21(2), 354–360. <https://doi.org/10.3329/bjms.v21i2.58068>
- [2] Aria, M., & Cuccurullo, C. (2017). bibliometrix: An R-tool for comprehensive science mapping analysis. *Journal of Informetrics*, 11(4), 959–975. <https://doi.org/10.1016/j.joi.2017.08.007>
- [3] Atrian, A., & Ghobbeh, S. (2023). Technostress and job performance: Understanding the negative impacts and strategic responses in the workplace. *arXiv*. <https://doi.org/10.48550/arXiv.2311.07072>
- [4] Balk, Y., Adriaanse, M., Ridder, D., & Evers, C. (2013). Coping under pressure: Employing emotion regulation strategies to enhance performance under pressure. *Journal of Sport & Exercise Psychology*, 35(4), 408–418. <https://doi.org/10.1123/jsep.35.4.408>
- [5] Bradford, S. C. (1934). Sources of information on specific subjects. *Engineering: An Illustrated Weekly Journal*, 137, 85–86.
- [6] Callon, M., Courtial, J. P., & Laville, F. (1991). Co-word analysis as a tool for describing the network of interactions between basic and technological research: The case of polymer chemistry. *Scientometrics*, 22, 155–205. <https://doi.org/10.1007/BF02019280>
- [7] Chen, H., Kewou, N. Y. N., Atingabili, S., Sogbo, A. D. Z. A., & Tcheudjeu, A. (2024). The impact of psychological capital on nurses' job performance: A chain mediation analysis of problem-focused coping and job engagement. *BMC Nursing*, 23, 1–12. <https://doi.org/10.1186/s12912-024-01802-6>
- [8] Demerouti, E., Bakker, A. B., Nachreiner, F., & Schaufeli, W. B. (2001). The job demands-resources model of burnout. *Journal of Applied Psychology*, 86(3), 499–512. <https://doi.org/10.1037/0021-9010.86.3.499>
- [9] Elshaer, I. A., Azazz, A. M. S., & Fayyad, S. (2022). Positive humor and work withdrawal behaviors: The role of stress coping styles in the hotel industry amid the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, 19(10), 6233. <https://doi.org/10.3390/ijerph19106233>
- [10] Folkman, S. (2013). Stress: Appraisal and coping. In M. D. Gellman & J. R. Turner (Eds.), *Encyclopedia of Behavioral Medicine*. Springer. https://doi.org/10.1007/978-1-4419-1005-9_215
- [11] Folkman, S., & Moskowitz, J. T. (2004). Coping: Pitfalls and promise. *Annual Review of Psychology*, 55, 745–774. <https://doi.org/10.1146/annurev.psych.55.090902.141456>
- [12] Hewett, R., Liefoghe, A., Visockaite, G., & Roongrerngsuke, S. (2018). Bullying at work: Cognitive appraisal of negative acts, coping, wellbeing, and performance. *Journal of Occupational Health Psychology*, 23(1), 71–84. <https://doi.org/10.1037/ocp0000064>
- [13] Kenntemich, L., von Hülsen, L., Schäfer, I., Böttche, M., & Lotzin, A. (2023). Coping profiles and differences in well-being during the COVID-19 pandemic: A latent profile analysis. *Stress and Health*, 39(2), 460–473. <https://doi.org/10.1002/smi.3196>
- [14] Kent, S., Devonport, T. J., Lane, A. M., Nicholls, W., & Friesen, A. P. (2018). The effects of coping interventions on ability to perform under pressure. *Journal of Sports Science & Medicine*, 17(1), 40–55.
- [15] Kishita, N., & Shimada, H. (2011). Effects of acceptance-based coping on task performance and subjective stress. *Journal of Behavior Therapy and Experimental Psychiatry*, 42(1), 6–12. <https://doi.org/10.1016/j.jbtep.2010.08.005>
- [16] Kratz, A. L., Molton, I. R., Jensen, M. P., Ehde, D. M., & Nielson, W. R. (2011). Further evaluation of the motivational model of pain self-management: Coping with chronic pain in multiple sclerosis. *Annals of Behavioral Medicine*, 41(3), 391–400. <https://doi.org/10.1007/s12160-010-9249-6>
- [17] Lambert, K., Hyer, M., Ruzicidlo, A., Bergeron, T., & Landis, T. (2014). Emotional resilience in adaptive responses. *Frontiers in Behavioral Neuroscience*. <https://doi.org/10.3389/fnbeh.2014.00124>

- [18] Li, L., Ai, H., Gao, L., Zhou, H., Liu, X., Zhang, Z., Sun, T., & Fan, L. (2017). Moderating effects of coping on work stress and job performance for nurses in tertiary hospitals: A cross-sectional survey in China. *BMC Health Services Research*, 17, Article 401. <https://doi.org/10.1186/s12913-017-2348-3>
- [19] Lu, L., Kao, S. F., Siu, O., & Lu, C. Q. (2010). Work stressors, Chinese coping strategies, and job performance in the Greater China. *International Journal of Psychology*, 45(4), 294–302. <https://doi.org/10.1080/00207591003682027>
- [20] Nandkeolyar, A. K., Shaffer, J. A., Li, A., Ekkirala, S., & Bagger, J. (2014). Surviving an abusive supervisor: The joint roles of conscientiousness and coping strategies. *Journal of Applied Psychology*, 99(1), 138–150. <https://doi.org/10.1037/a0034262>
- [21] Page, M. J., McKenzie, J. E., Bossuyt, P. M., Boutron, I., Hoffmann, T. C., Mulrow, C. D., ... & Moher, D. (2021). The PRISMA 2020 statement: An updated guideline for reporting systematic reviews. *BMJ*, 372, n71. <https://doi.org/10.1136/bmj.n71>
- [22] Peng, A., Riolli, L., Schaubroeck, J., & Spain, E. (2012). A moderated mediation test of personality, coping, and health among deployed soldiers. *Journal of Organizational Behavior*, 33(4), 512–530. <https://doi.org/10.1002/job.766>
- [23] Pons, P., & Latapy, M. (2006). Computing communities in large networks using random walks. *Journal of Graph Algorithms and Applications*, 10(2), 191–218. <https://doi.org/10.7155/jgaa.00124>
- [24] Segerstrom, S. C., & Smith, G. T. (2019). Personality and coping: Individual differences in responses to emotion. *Annual Review of Psychology*, 70, 651–671. <https://doi.org/10.1146/annurev-psych-010418-102917>
- [25] Shimazu, A., Schaufeli, W., & Taris, T. (2010). How does workaholism affect worker health and performance? The mediating role of coping. *International Journal of Behavioral Medicine*, 17(2), 154–160. <https://doi.org/10.1007/s12529-010-9077-x>
- [26] Tummers, L. (2017). Bureaucracy and policy alienation. In *Encyclopedia of Public Administration and Public Policy* (3rd ed.). https://doi.org/10.1007/978-3-319-31816-5_2715-1
- [27] Xiao, J., Liu, X., & Zhao, X. (2022). Supervisor ostracism, attribution theory, job crafting, supervisor-focused ingratiation, and performance outcomes. *Leadership & Organization Development Journal*, 41(5), 669–687. <https://doi.org/10.1108/LODJ-07-2019-0334>
- [28] Yi, S., Wu, N., Xiang, X., & Liu, L. (2020). Challenges, coping, and resources: A thematic analysis of foreign teachers' experience of cultural adaptation in China. *Frontiers in Psychology*, 11, 168. <https://doi.org/10.3389/fpsyg.2020.00168>
- [29] Young, T. K. H., Pakenham, K. I., & Norwood, M. F. (2018). Thematic analysis of aid workers' stressors and coping strategies: Work, psychological, lifestyle and social dimensions. *International Journal of Humanitarian Action*, 3, 19. <https://doi.org/10.1186/s41018-018-0046-3>
- [30] Zappalà, S., Toscano, F., Bharti, D., & Pietrantonì, L. (2024). Unveiling the relationship between flextime and job performance: The role of family-work conflict and the ability to cope in a moderated mediation model. *Social Sciences*, 13(6), 317. <https://doi.org/10.3390/socsci13060317>
- [31] Zupic, I., & Čater, T. (2015). Bibliometric methods in management and organization. *Organizational Research Methods*, 18(3), 429–472. <https://doi.org/10.1177/1094428114562629>
- [32] Kessler, M. M. (1963). Bibliographic coupling between scientific papers. *American Documentation*, 14(1), 10–25. <https://doi.org/10.1002/asi.5090140103>
- [33] Phan Tan, L. (2022). Bibliometrics of social entrepreneurship research: Co-citation and bibliographic coupling analyses. *Cogent Business & Management*, 9(1), 2124594. <https://doi.org/10.1080/23311975.2022.2124594>