

A Bibliometric Review of Factors Causing Burn Out


Firman Subarkah

Management, Pembangunan Jaya University,
Tangerang, 15413, Indonesia
firman.subarkah@upj.ac.id

Yusuf Iskandar *

Management, Pembangunan Jaya University,
Tangerang, 15413, Indonesia
yusuf.iskandar@upj.ac.id

**Corresponding author*

 Submitted: 2024-05-24; Revised: 2024-06-03; Accepted: 2024-06-03; Published: 2024-06-19

Abstract— Burnout has garnered significant attention across multiple scientific disciplines, particularly in health, management, and psychology. This bibliometric review aims to delve into the factors influencing burnout, while also highlighting emerging trends, influential authors, and potential avenues for future research. Utilizing systematic data collection and analysis through VOS Viewer software, this study uncovers key themes, research contributors, and interdisciplinary connections within the realm of burnout literature. The findings reveal a substantial body of research dedicated to burnout, with academia notably engaged in its exploration. However, a notable gap exists in the emphasis on causal factors. Predominant contributors to burnout identified include excessive workload, work-life imbalance, and inadequate social support systems. This underscores the pressing need for comprehensive interdisciplinary collaboration to formulate effective prevention and intervention strategies. The study advocates for the integration of disciplines such as psychology, human resource management, and health to address burnout holistically. By bridging these diverse fields, researchers, policymakers, and practitioners can develop more nuanced and effective approaches to tackle burnout's adverse effects in both workplace settings and broader contexts. In conclusion, this review offers valuable insights for stakeholders invested in mitigating burnout's detrimental impacts. By recognizing the multifaceted nature of burnout and fostering collaboration across disciplines, the groundwork is laid for more robust and sustainable solutions to combat this pervasive phenomenon.

Keywords—Burnout, Bibliometric Review, Causal Factors, Trends, Interdisciplinary Collaboration, Prevention Strategies

I. INTRODUCTION

According to research (Salmela-Aro & Upadyaya, 2014) In the contemporary landscape of professional life, burnout has emerged as a critical concern affecting individuals across various fields and industries. Defined as a state of emotional, physical, and mental exhaustion caused by prolonged stress and overwork, burnout not only detrimentally impacts individual well-being but also poses significant challenges to organizational productivity and effectiveness. Recognizing the multifaceted nature of

burnout and its profound implications, researchers have undertaken numerous studies to understand its underlying factors and manifestations. (Bianchi & Schonfeld, 2016).

According to research (Maslach & Leiter, 2016) This bibliometric review aims to systematically analyze existing scholarly literature pertaining to the factors contributing to burnout. By employing bibliometric methods, this study seeks to provide a comprehensive overview of the research landscape, identifying key themes, seminal works, and emerging trends in the field. Through the synthesis of empirical findings and theoretical frameworks from diverse disciplinary perspectives, this review endeavors to offer valuable insights into the complex interplay of factors influencing burnout among professionals. (Maslach & Leiter, 2016)

According to research (West et al., 2016) explaining the various dimensions of burnout and explaining the factors that contribute to the onset and exacerbation of burnout, this review not only contributes to the theoretical understanding of burnout but also informs practical interventions and organizational policies aimed at reducing its adverse effects. In an era characterized by rapid technological progress, globalization, and increasingly intensive work demands, the need to address burnout is increasingly urgent. (Einar M. Skaalvik & Sidsel Skaalvik, 2018)

According to research (Boonen et al., 2016) The phenomenon of burnout has garnered increasing attention in recent decades, reflecting shifts in the nature of work and the evolving socio-economic landscape. While burnout was initially conceptualized within the realm of healthcare professions, where it was observed among physicians and nurses facing excessive workloads and emotional demands, research has since demonstrated its prevalence across diverse occupational settings, including but not limited to education, business, technology, and the creative arts. This broadening recognition underscores the universal relevance of burnout as a pervasive occupational hazard, transcending specific job roles or industries. (Bakker & Costa, 2014)

According to research (Salvagioni et al., 2017) Central to understanding burnout is the recognition that it arises from a complex interplay of individual, organizational, and contextual factors. At the individual level, personality traits, coping mechanisms, and psychological vulnerabilities play a significant role in predisposing individuals to burnout. For instance, individuals with

perfectionistic tendencies or a strong desire for achievement may be particularly susceptible to burnout when confronted with high-pressure work environments or unrealistic performance expectations. Similarly, inadequate coping skills or a lack of social support can exacerbate feelings of stress and contribute to the development of burnout symptoms. (Sirois & Molnar, 2017)

According to research conducted by (Demerouti et al., 2015) Organizational factors also have a major influence on the prevalence and severity of fatigue among employees. Workload demands, job autonomy, and the presence of organizational support systems all contribute to the overall work environment and significantly impact employees' experiences of stress and burnout. Research consistently shows that workplaces characterized by excessive workload, role ambiguity, and poor interpersonal relationships are more likely to encourage burnout among employees. In contrast, organizations that prioritize employee well-being, provide adequate resources for job performance, and foster a supportive organizational culture can effectively reduce the risk of burnout and increase overall employee satisfaction and engagement. (Bakker et al., 2014)

Moreover, contextual factors such as societal norms, economic conditions, and cultural values shape individuals' experiences of work-related stress and burnout. For instance, in cultures that valorize overwork and equate long hours with dedication and success, employees may feel compelled to prioritize work commitments at the expense of their personal health and well-being, thereby increasing their susceptibility to burnout. Similarly, macroeconomic trends such as recessionary pressures or job insecurity can amplify feelings of stress and uncertainty among workers, contributing to elevated rates of burnout within affected populations. (Mucci et al., 2015)

In recent years, the proliferation of digital technologies and the advent of remote work arrangements have introduced new dimensions to the discourse on burnout. While these technologies offer unprecedented flexibility and connectivity, they also blur the boundaries between work and personal life, making it increasingly challenging for individuals to disengage from work-related responsibilities and recharge. The phenomenon of "technostress," characterized by feelings of overwhelm and anxiety stemming from constant connectivity and information overload, has emerged as a significant risk factor for burnout in the digital age. (Tarafdar et al., 2019)

Against this backdrop of evolving work dynamics and socio-cultural trends, research on burnout continues to evolve, with scholars exploring novel theoretical frameworks, methodological approaches, and intervention strategies to address this pressing issue. By conducting a comprehensive bibliometric review, this study aims to synthesize and critically evaluate the existing body of literature, identifying gaps in knowledge, unresolved controversies, and promising avenues for future research. By shedding light on the underlying factors contributing to burnout and elucidating its far-reaching implications for

individuals, organizations, and society at large, this review seeks to inform evidence-based interventions and policy initiatives aimed at fostering healthier, more sustainable work environments in the 21st century.

II. METHODOLOGY

A. Data Collection

This research employs a systematic bibliometric approach to analyze the landscape of Burn Out. A comprehensive search will be conducted across reputable academic databases, including but not limited to PubMed, Scopus, and Web of Science, to retrieve relevant publications. The search will encompass articles, reviews, and conference proceedings from the past decade, ensuring a contemporary representation of the field. (Bianchi et al., 2015)

B. Inclusion Criteria

Selected publications will be those directly related to Burn Out, encompassing studies that investigate any topic related to Burn Out. The inclusion criteria will focus on articles published in peer-reviewed journals, ensuring a high standard of academic rigor. The temporal scope will cover the past ten years to capture recent trends and developments in the field.

C. Data Analysis

VOS Viewer is used as bibliometric software. This software will be utilized to conduct a thorough analysis of the retrieved publications. The analysis will be divided into four parts according to the research question, namely trend analysis using overlay visualization, most influential author analysis by identifying the most impactful articles and author mapping, clustering analysis with network visualization, and future research potential analysis with density visualization. (van Eck & Waltman, 2017)

D. Research Questions

Alignment The methodology is structured to address each research question systematically. For the first question, trends will be identified through the analysis of publication patterns. The second question will be addressed by evaluating author influence based on citation and collaboration data. The third question will be answered by categorizing research themes derived from the keyword co-occurrence. Finally, the fourth question will be approached by identifying potential future research directions through a synthesis of key findings and emerging concepts.

E. Validity and Reliability

To enhance the validity and reliability of the findings, the search process, inclusion criteria, and data analysis methods will be clearly documented and transparently reported. Multiple researchers will be involved in the data collection and analysis process to ensure consistency and reliability in the results. Additionally, the use of established bibliometric tools contributes to the reliability of the analysis.

III RESULT AND DISCUSSION

Before discussing the topic of burnout, bibliometric data shows that a total of 990 papers have been published in the last 69 years. The total citations received by these papers reached 47,292, with an average of 685.39 citations per year. The average citation per paper is 47.77, while the average citation per author is around 35,342.59. Thus, each author has received citations from an average of 610.04 papers. In terms of number of authors per paper, the average is 2.30. The h index is 70, indicating that there are 70 papers, each of which has been cited at least 70 times. The g and hI indices were 205 and 28.99, respectively. AWCR (Average Weighted Citation Rate) is 2614.69, while AW_index is 51.13. From this value, it can be concluded that the works that have been published are quite influential in scientific literature.

A. Research Data Metrics

Table 1 shows, a metric table of research data that covers a variety of important indicators related to the performance of academic publications. These metrics include the number of publications, citations, h and g indices, as well as other metrics that provide an overview of the impact and productivity of research over a period of 69 years. This data provides insight into the contribution of research to the scientific community and how often the work is recognized and used by other researchers.

Table 1. Research Data Metric

Papers	990
Citations	47292
Years	69
Cites_Year	685.39
Cites_Paper	47.77
Cites_Author	35342.59
Papers_Author	610.04
Authors_Paper	2.30
h_index	70
g_index	205
hc_index	43
hI_index	28.99
hI_norm	52
AWCR	2614.69
AW_index	51.13
AWCRpA	1507.40
e_index	177.91
hm_index	54.83
QueryDate	25/04/2024 07:16
Cites_Author_Year	512.21
hI_annual	0.75

h_coverage	77.3
g_coverage	89.1
star_count	48
year_first	1955
year_last	2024
ECC	47292
acc1	399
acc2	242
acc5	107
acc20	18
hA	19

Can be seen in Table 1, that changes in patterns of situation, influence, and scope of research carried out. In this time span, there have been 399 authors who have contributed to research on fatigue, with a total of 47,292 quotes. From this, research on fatigue has received significant attention in academic literature, with indications of great influence. However, the coverage of this research does not fully cover all aspects associated with the burnout phenomenon, as only a fraction (18) of a total of 990 papers have been reviewed. This suggests that there is still room for further growth and development in burnout research.

B. Research Trends

This network shows how fatigue can affect a wide range of groups of people, including employees, students, and nurses. It also shows a variety of factors that can cause boredom, such as stress, emotional fatigue, and high job demands.

Can be seen in Figure 1, it shows how people who are not exhausted can have more positive relationships and support each other. These figures also show various factors that can help prevent exhaustion, such as a good work-life balance, social support, and stress management strategies.

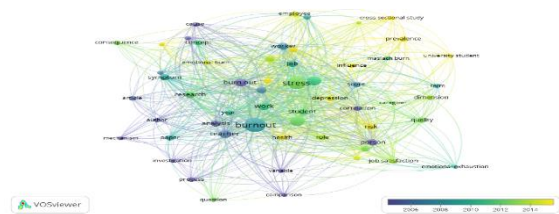


Figure 1. Overlay Visualization

C. Influential Authors

The image shows a VOSviewer diagram that displays the relationship between author and book title. This diagram was created using bibliometric methods, especially co-authorship analysis. Co-authorship analysis is used to identify relationships between authors based on their scientific publications.

Can be seen in figure 2, each node represents a writer, and the line that connects the node indicates that both

with the size and color of nodes that reflect the contributions of each author as well as their major research areas. Furthermore, thematic clustering helps in understanding the complexity and impact of burnout on individuals and work environments, ranging from early signs to serious consequences.

Finally, a bibliometric visualization of future research options provides an overview of the focus and trends of research in the field of burnout. With keywords like "stress" and "burnout" at the center of attention, as well as terms like "health" or "depression" indicate specific sub-themes and contexts that are often discussed in literature. Thus, this bibliometric analysis not only provides an overview of the status quo of knowledge about burnout, but also provides insight into the direction that future research may take to better understand and address this problem holistically.

The development of research on burnout over time suggests a rich narrative of understanding and attention to this phenomenon. Since ancient times, burnout has been a significant concern in scientific literature, with research continuing to expand over time. Initially, the focus may be more on the conceptual understanding and impact of burnout on individuals in the health profession, however, research has expanded to cover a wide range of fields of profession, from education to technology. (Mucci et al., 2016)

The research not only considers individual factors, such as personality and mechanisms of coping, but also organizational and contextual factors such as workload and social support. The latest trends in research include the development of new concepts, methodological approaches, and intervention strategies, such as research on "technostress" and its impact on burnout. Cross-disciplinary collaboration is also increasingly recognized as the key to developing a holistic approach to preventing and tackling burnout. Thus, developments in research on burnout reflect growing efforts to understand and address its negative impact in various occupational and organizational contexts. (van Woerkom et al., 2016)

Based on the bibliometric research that has been carried out, future developments in the topic of burnout will become increasingly interesting and important in the context of individual well-being and organizational sustainability. It is expected that attention to burnout will continue to rise in various professional and disciplinary areas, especially with widespread recognition of its adverse effects. This development will be driven by interdisciplinary collaboration, in which psychology, human resource management, health, and information technology will integrate to develop a more holistic understanding of the factors that influence the emergence of burnout.

In the future, the development of new methods and interventions will be the focus of research, in line with changing work dynamics and technological advances. Research will continue to find ways to diagnose, prevent, and manage burnout more effectively, including through the use of technology to monitor levels of stress and fatigue, as well as the development of more personalized

and timely interventions. In addition, there will be greater emphasis on work-life balance, with research highlighting the importance of supportive organizational policies and individual awareness of personal well-being care outside the work environment. (Shanafelt et al., 2015)

New concepts like "technostress" will continue to be explored further in future burnout research. The researchers will work deeper to understand how digital technology and changes in the way we work affect levels of stress and mental exhaustion, as well as finding ways to address its negative impact. In addition, there will be a greater emphasis on prevention, with research aimed at changing the organizational culture and working environment to prevent the emergence of burnout from the outset, rather than just addressing symptoms after they occur.

Thus, in the future, research on burnout will become increasingly diverse and holistic, focusing on integrating knowledge from various disciplines, developing innovative solutions, and proactive prevention. These developments will play a key role in shaping a healthier, more productive, and sustainable working environment for individuals and organizations in the modern era.

G. Study Implication

Bibliometric analysis of the factors that cause burnout has important strengths for various parties, both practitioners and practitioners in the field. First of all, this analysis allows the identification of major trends and themes in research on burnout. This helps researchers understand which topics most researched and what themes are dominant in that research. Furthermore, by analyzing the contributions of countries, institutions, and key authors, we can find out where the largest research sources come from and who are the leaders in the field. This information is important for directing research development policies in various countries and institutions, as well as strengthening collaboration between researchers.

In addition, through bibliometric analysis, we can disseminate the relationship between the factors that cause burnout and the scientific disciplines that study them. This strengthens cross-disciplinary understanding of burnout and facilitates cross-disciplinary collaboration that can produce more holistic solutions in preventing and treating burnout. The analysis also highlights the contribution of existing research and identifies room for further development. Although much research has been conducted on burnout, there is still room for further development in understanding this phenomenon.

Furthermore, the results of this analysis can be used to develop more effective prevention and intervention strategies. A better understanding of the factors that lead to burnout can help in reducing its negative impact on individuals and organizations. In addition, bibliometric analysis can provide a basis for developing policies and sustainable human resource management practices in supporting well-being and productivity in the workplace. Thus, bibliometric analysis of burnout not only provides a deeper understanding of this phenomenon, but also provides a basis for the development of research and

practices that are more effective in preventing and treating burnout.

IV. CONCLUSION

In recent years, burnout has become a phenomenon that has received increasingly serious attention from various scientific disciplines, especially in the fields of health, management and psychology. Through this bibliometric study, several important findings have been revealed that contribute to our understanding of the factors that lead to burnout and its impact on individual productivity and well-being at work.

From the data collected, there were 990 publications highlighting burnout over the last 69 years. The high number of citations, reaching 47,292 times, shows that this topic is very relevant and is often used as a reference in academic studies. An h-index of 70 indicates that there are a number of studies consistently cited in the scientific literature, indicating the influence and importance of this topic in academic discussions.

However, although much research has been conducted, only a few have specifically examined the factors that cause burnout. This shows that there is still enough room for further research to explore aspects that have not yet been revealed. The bibliometric research carried out not only helps in identifying trends and dominant themes, but also highlights the contribution of various countries and institutions that have supported this research.

One interesting aspect of these findings is how factors such as excessive workload, imbalance between work and personal life, and lack of social support in the work environment are the main causes of burnout. This emphasizes the importance of effective human resource management and work policies that support balance between work and personal life.

It is also worth noting that burnout not only affects individuals working in certain sectors, but is also widespread across various professional groups, including employees, students and social workers. Therefore, prevention and intervention strategies must be designed in such a way that they can be implemented widely and effectively across various sectors and disciplines.

This research also shows the potential for future studies that can integrate cross-disciplinary approaches, combining psychology, human resource management, and health to develop comprehensive and sustainable solutions to the problem of burnout. In addition, analysis of identified trends and themes can be used as a basis for formulating more effective policies in preventing and overcoming burnout.

In conclusion, although there has been much research on burnout, this bibliometric study provides a new and in-depth perspective that not only identifies its causes and impacts, but also highlights the need for further research. This is not only relevant to the academic community, but also to policymakers, HR practitioners, and individuals in the workplace, in their collective efforts to address and prevent burnout in the future.

REFERENCES

- Bakker, A. B., & Costa, P. L. (2014). Chronic job burnout and daily functioning: A theoretical analysis. *Burnout Research*, 1(3), 112–119. <https://doi.org/10.1016/j.burn.2014.04.003>
- Bakker, A. B., Demerouti, E., & Sanz-Vergel, A. I. (2014). Burnout and Work Engagement: The JDR Approach. In *Annual Review of Organizational Psychology and Organizational Behavior* (Vol. 1, pp. 389–411). Annual Reviews Inc. <https://doi.org/10.1146/annurev-orgpsych-031413-091235>
- Bianchi, R., & Schonfeld, I. S. (2016). Burnout is associated with a depressive cognitive style. *Personality and Individual Differences*, 100, 1–5. <https://doi.org/10.1016/j.paid.2016.01.008>
- Bianchi, R., Schonfeld, I. S., & Laurent, E. (2015). Burnout-depression overlap: A review. In *Clinical Psychology Review* (Vol. 36, pp. 28–41). Elsevier Inc. <https://doi.org/10.1016/j.cpr.2015.01.004>
- Boonen, A. J. H., de Koning, B. B., Jolles, J., & van der Schoot, M. (2016). Word Problem Solving in Contemporary Math Education: A Plea for Reading Comprehension Skills Training. *Frontiers in Psychology*, 7. <https://doi.org/10.3389/fpsyg.2016.00191>
- Demerouti, E., Bakker, A. B., & Halbesleben, J. R. B. (2015). Productive and counterproductive job crafting: A daily diary study. *Journal of Occupational Health Psychology*, 20(4), 457–469. <https://doi.org/10.1037/a0039002>
- Einar M. Skaalvik, & Sidsel Skaalvik. (2018). Job demands and job resources as predictors of teacher motivation and well-being. *Social Psychology of Education*, 21(5), 1251–1275. <https://doi.org/10.1007/s11218-018-9464-8>
- Maslach, C., & Leiter, M. P. (2016a). Understanding the burnout experience: Recent research and its implications for psychiatry. *World Psychiatry*, 15(2), 103–111. <https://doi.org/10.1002/wps.20311>
- Maslach, C., & Leiter, M. P. (2016b). Understanding the burnout experience: Recent research and its implications for psychiatry. *World Psychiatry*, 15(2), 103–111. <https://doi.org/10.1002/wps.20311>
- Mucci, N., Giorgi, G., Cupelli, V., Gioffrè, P. A., Rosati, M. V., Tomei, F., Tomei, G., Bresco-Esteve, E., & Arcangeli, G. (2015). Work-related stress assessment in a population of Italian workers. The Stress Questionnaire. *Science of the Total Environment*, 502, 673–679. <https://doi.org/10.1016/j.scitotenv.2014.09.069>
- Mucci, N., Giorgi, G., Roncaioli, M., Perez, J. F., & Arcangeli, G. (2016). The correlation between stress and economic crisis: A systematic review. In *Neuropsychiatric Disease and Treatment* (Vol. 12, pp. 983–993). Dove Medical Press Ltd. <https://doi.org/10.2147/NDT.S98525>
- Salmela-Aro, K., & Upadaya, K. (2014). School burnout and engagement in the context of demands-resources

- model. *British Journal of Educational Psychology*, 84(1), 137–151. <https://doi.org/10.1111/bjep.12018>
- Salvagioni, D. A. J., Melanda, F. N., Mesas, A. E., González, A. D., Gabani, F. L., & De Andrade, S. M. (2017). Physical, psychological and occupational consequences of job burnout: A systematic review of prospective studies. In *PLoS ONE* (Vol. 12, Issue 10). Public Library of Science. <https://doi.org/10.1371/journal.pone.0185781>
- Schaufeli, W. B., & Taris, T. W. (2014). A critical review of the job demands-resources model: Implications for improving work and health. In *Bridging Occupational, Organizational and Public Health: A Transdisciplinary Approach* (Vol. 9789400756403, pp. 43–68). Springer Netherlands. https://doi.org/10.1007/978-94-007-5640-3_4
- Shanafelt, T. D., Hasan, O., Dyrbye, L. N., Sinsky, C., Satele, D., Sloan, J., & West, C. P. (2015). Changes in Burnout and Satisfaction with Work-Life Balance in Physicians and the General US Working Population between 2011 and 2014. *Mayo Clinic Proceedings*, 90(12), 1600–1613. <https://doi.org/10.1016/j.mayocp.2015.08.023>
- Sirois, F. M., & Molnar, D. S. (2017). The psychology of perfectionism: Theory, research, applications. In *The Psychology of Perfectionism: Theory, Research, Applications*. Taylor and Francis. <https://doi.org/10.4324/9781315536255>
- Tarafdar, M., Cooper, C. L., & Stich, J.-F. (2019). The technostress trifecta-techno eustress, techno distress and design: Theoretical directions and an agenda for research THE TECHNOSTRESS TRIFECTA-TECHNO EUSTRESS, TECHNO DISTRESS AND DESIGN: AN AGENDA FOR RESEARCH. *Information Systems Journal* Vo, 29(1), 6–42. <https://doi.org/10.1111/isj.12169i>
- van Eck, N. J., & Waltman, L. (2017). Citation-based clustering of publications using CitNetExplorer and VOSviewer. *Scientometrics*, 111(2), 1053–1070. <https://doi.org/10.1007/s11192-017-2300-7>
- van Woerkom, M., Oerlemans, W., & Bakker, A. B. (2016). Strengths use and work engagement: a weekly diary study. *European Journal of Work and Organizational Psychology*, 25(3), 384–397. <https://doi.org/10.1080/1359432X.2015.1089862>
- West, C. P., Dyrbye, L. N., Erwin, P. J., & Shanafelt, T. D. (2016). Interventions to prevent and reduce physician burnout: a systematic review and meta-analysis. *The Lancet*, 388(10057), 2272–2281. [https://doi.org/10.1016/S0140-6736\(16\)31279-X](https://doi.org/10.1016/S0140-6736(16)31279-X)