Assessing Academic Burnout Research Trends and Directions: A Bibliometric Overview of Scopus Data (1984-2023)

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Abstract

This study aims to track the evolution and trajectory of academic burnout research in Scopus-indexed papers. This study uses bibliometric analytic approaches to examine all of the papers indexed in the Academic Burnout database of the Scopus database between 1984 and 2023. Data analysis was done with R/R-Studio and Excel. VOSviewer analysis analyzes the simultaneous occurrence of keywords and document quotes. The author found 755 publications that matched the specified function, subject, and criteria. This research shows an annual growth rate of 11.86%, with the most publications on academics and burnout in 2022. The United States is the country that contributes the most publications with affiliation from Helsingin Yliopisto. Lee, SM, became the most productive writer on the themes of academics and burnout. The bibliometric analysis carried out was limited to Scopus data. Other national and international databases should have been considered in this study. This study offers suggestions for further research and a concise synopsis of the literature available to academic researchers.
Keywords: Psychology, Burnout, *Humans,* Questionnaire, Controlled Study.

Introduction Section

In the modern era, which is full of pressure and demands, burnout has become a serious issue that affects various aspects of life, including the academic world. Long-term stress can cause burnout, a chronic illness that is poorly controlled [1]. According to Maslach and Jackson [2], burnout was only found in jobs related to humans, consisting of three components with different meanings. A lack of energy and a sense of emotional resource fatigue are the hallmarks of emotional exhaustion. The development of attitudes and indifference towards other people also characterizes depersonalization. Moreover, a propensity toward self-defeatism is indicative of diminished personal accomplishment.

In an academic context, burnout can be experienced by students, lecturers, researchers, and individuals involved in the education and research process. Academic burnout can harm individual welfare and institutional productivity [2]. Furthermore, burnout has various negative impacts in the place of study/work, not only on individuals who suffer from fatigue. Burnout harms humans and affects work, teams, and organizations [3]. Prolonged exposure to stress, such as work overload and lack of limited resources, can trigger work-related stress.

Moreover, job burnout results from the constant buildup of stress[4]. Based on data from Lynne [5], staff and employers admit that fatigue due to overwork is critical. Poor productivity causes, in turn, a greater tendency to quit their jobs to seek other opportunities. It has been demonstrated that burnout and its constituents impact job satisfaction, organizational commitment, work performance, and desire to leave[6].

When readjusting to a new environment, students encounter a variety of challenges. Therefore, international students resort to various coping mechanisms to address their issues. In addition to internal factors like psychological aspects of self-view, feelings of loneliness and longing, and family and social support, external factors that affect foreign students' social adjustment include language and communication, interaction with others, and social and cultural differences through differences in staple foods, climate, rules, and social context [7].

In the academic environment, pressure to achieve superior results, heavy workloads, tight deadlines, high competition, and demands to meet personal and professional expectations are often the leading causes of burnout. Burnout can hurt an individual's physical and mental well-being, such as extreme fatigue, depression, anxiety, and decreased motivation and interest in academic work [8].

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For example, according to Universitas Muhammadiyah Surakarta's 2017–2018 undergraduate physiotherapy transfer students' frequency distribution of stress levels, 75 respondents, or 53.6%, reported severe stress levels. The frequency distribution of poor sleep quality among 119 respondents, or 85.0%, undergraduate physiotherapy transfer students at Universitas Muhammadiyah Surakarta in 2017–2018 is known.

Previous studies have provided strong evidence regarding the prevalence of burnout among academics. Studies on the "Maslach Burnout Inventory" have identified three main dimensions of burnout: emotional exhaustion, depersonalization, and decreased self-esteem[9]. The emotional effects of social comparison were investigated in a study including sociotherapists, and they were linked to individual variations in social comparison orientation and professional burnout[10].

With increasing awareness of the impact of academic burnout, many educational institutions and academic organizations have begun taking steps to prevent and address this problem. The importance of social support, effective time management, and mental well-being programs have been recognized as essential factors in efforts to reduce the risk of burnout among academics. A deeper understanding of academic burnout is essential in a changing and developing context. Thus, further research could provide a more comprehensive view of the factors influencing academic burnout, practical strategies for preventing it, and its impact on individuals and institutions [11].

In order to facilitate future research and offer readers and scholars information and recommendations that will help them comprehend the connection between academic burnout and burnout, it is imperative that current study findings be critically analyzed. The accuracy and availability of data from scientific research activities are critical components of this evaluation process [12].

Bibliometric indicators are one of the instruments used to assess scientific research findings; they look at how science and technology interact, map out scientific disciplines, monitor the advancement of new knowledge in particular fields, and serve as a future indicator for developing strategic plans[13]. Research on burnout and academics aims to understand the relationship between burnout level and students' academic performance. Because burnout is a psychological condition caused by chronic stress related to work or high demands, it can result in emotional exhaustion, depersonalization, and feelings of low self-achievement.[14] Meanwhile, in an academic context, burnout can affect learning motivation, performance quality, and students' well-being [14].

According to Christiana Maslach's study, burnout is a psychological condition that manifests as a protracted reaction to ongoing interpersonal pressures in the workplace.[15] The three critical components of this reaction are extreme tiredness, cynicism, disengagement from work, and feelings of inadequacy and lack of achievement. This three-dimensional model is significant because it integrates the person's self and other concepts and situates their stress experience in a social context [16].

Meanwhile, a comprehensive picture of burnout itself, as explained by Schaufeli, includes emotional exhaustion, depersonalization, and feelings of low self-achievement [17]. Numerous studies have been done on the different aspects of burnout. Feldt proposed the hypothesis known as the Bergen Burnout Inventory (BBI), which evaluates three aspects of burnout: feeling inadequate at work, being tired at work, and being cynical about the purpose of work [18].Other measures of burnout distinguish between different types of exhaustion, although they address weariness. The Shirom-Melamed Burnout Measure, for instance (SMBM) [19] distinguishes between three types of fatigue: cognitive, emotional, and physical; the Copenhagen Burnout Inventory (CBI) distinguishes between two types of fatigue: psychological and physical [20].

The causal theory—which has always been implied in burnout research—that certain situational and individual factors cause people to experience burnout is made clear by the majority of burnout models.[21] Burnout has particular consequences once it sets in, both situational and personal. As previously stated, the following six primary domains were determined: value, community, fairness, workload, control, and incentives. The Demand-Control model of job stress considers the first two aspects [2].

Based on research results related to academic burnout at the educational level, it is concluded that students experience academic burnout due to various needs and obstacles during online learning [2]. The research results of Adnan and Anwar [22] explain that the obstacles students feel during online lectures are inadequate facilities or internet access, as well as inaccuracy and ineffectiveness of the interaction process. Students favor in-person learning environments over online learning platforms during the COVID-19 epidemic. This situation is because students feel that online learning will increase their academic burnout, which will, of course, affect the learning process, such as delaying homework, doing homework, losing interest in studying, reducing concentration on lecture material, and academic achievement [23].

Regarding academic demands, the research results by Harahap (2020) indicate that 39 students' levels of learning stress during the COVID-19 pandemic, or 13% of students, were at a high level, and 225 students, or 75%, were at a medium level. There were 36 students, or 12%, at the low level. These results show that during the COVID-19 pandemic, most students experienced academic pressure when studying online. This is because one of the causes of burnout refers to stress[1]. In this regard, research conducted in the United Arab Emirates regarding the level of academic stress anxiety leading to burnout shows that non-medical students experience increased anxiety during online learning, leading to academic burnout [24].

Academic burnout is a type of academic dullness that results in pressure, stress, or psychological effects from the learning process [25]. The relationship between boredom and academics with health has severe impacts to pay attention to [26]. As

Burke RJ has pointed out, poor health contributes to fatigue and poor health. Stress-related symptoms, including headaches, persistent exhaustion, gastrointestinal issues, tense muscles, elevated blood pressure, cold/flu episodes, and irregular sleep patterns, are typically associated with tiredness. These physiological relationships are similar to those observed with other measures of extended stress[27]. Students who smoke throughout the school day received greater burnout ratings than non-smokers, male students received greater burnout scores than female students, and upper-class students had greater burnout scores than lower-class students [28].

The current study explores the relationship between perfectionism, engagement, and burnout and investigates potential moderators of the relationship [29]. Meanwhile, handling burnout itself has been widely discussed. The most popular recommendations include: a) altering work schedules (e.g., by working fewer hours, taking more breaks, avoiding overtime, and juggling work with personal obligations); b) learning stress-reduction techniques (e.g., cognitive reorganization, solving disputes, and time managing); c) obtaining social support (from coworkers and family); d) utilizing relaxation techniques; e) enhancing physical and mental fitness; and f) improving one's understanding of oneself (through various methods of self-analysis, counseling, or therapy) [30].

Methods of bibliometric analysis are used in this study [13]. Data was retrieved by running a Boolean search engine over the Scopus database between 1984 and 2023. The search was conducted at 09.30 WIB on August 5, 2023. Researchers examine citations, document content, and networks using R, Rstudio, VosViewer, and Microsoft Excel. Researchers went through three stages of data processing in this research process.

Researchers will first evaluate the literature on connected themes to ensure the research is relevant to bibliometric concerns. In addition, a literature review can assist in identifying relevant terms that accurately represent the topic of the study.

In the next phase, researchers used boolean operators TITLE-ABS-KEY (academic AND burnout) in a Scopus search, yielding 2,948 documents. After that, filtering is done with boolean operators (LIMIT TO (SUBJARE , "soci")) AND (LIMIT-TO (DOCTYPE , "ar")) AND (LIMIT TO (SRCTYPE , "j")) AND (LIMIT-TO (LANGUAGE , "english")) to narrow the scope to the subject area of social sciences, only journals as source documents, and only articles written in English. This brings the final number of documents to 755 documents.

In the third step, Rstudio, the Scopus analyzer, and R software are used to examine the final search document. The objective is to determine the annual volume of documents on the journal, author, affiliation, nation of origin, and subject/field. After that, analysis was done to determine how closely related the documents were, using Microsoft Excel for data processing and VOSviewer for visualization. Figure (1) below illustrates this study process:
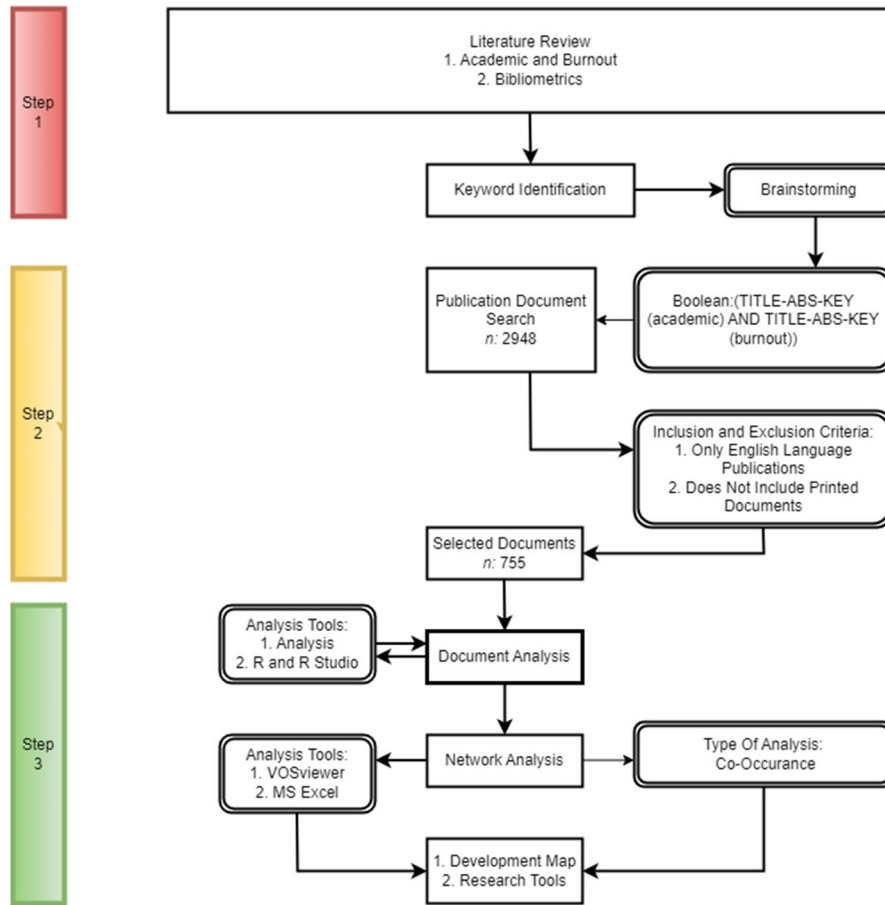
Figure 1

Document Analysis

Key Data Information

Table 1 contains information based on figures related to publications about academics and burnout. There, it is mentioned that from 1984 to 2023, there have been papers concerning academic burnout. An overview of the 755 papers gathered during 39 years is given in the table. Consists of 2634 writers, 86 single authors, 12.85% worldwide authorship collaboration, 34081 references, and an annual growth rate of 11.86%. Each document has an average of 22.61 citations.

Table 1. Main Information Document

Description	Results
Primary information about the data	
Timespan	1984:2023
Sources (Journals, Books, etc.)	324
Documents	755
Annual growth rate %	11.86
Document average age	5.05
Average citations per doc	22.61
References	34081
Document contents	

Keywords plus (id)	1312
Author's keywords (de)	1686
Authors	
Authors	2634
Authors of single-authored docs	86
Authors collaboration	
Single-authored docs	94
Co-Authors per Doc	3.87
International co-authorships %	12.85
Document types	
Articles	755

Documents by year

Figure 2, 'Documents by Year,' based on 1984, Figure 2 depicts the evolution of publications on the academic and burnout subject. The first document was published once in 1984; from 1984 to 1995, publications experienced stagnation with an average of 1 to 2 publications. Between 2011 and 2021, the quantity of publications increased significantly. Namely, in 2011, there were 16 publications. Then, in 2012, there were 17 publications. In 2013, there were 18 publications, and in 2014, there were 21 publications. Then, in 2019, there were 69 publications. Then, in 2020, there were 84 publications, then in 2021, there were 117 publications, and 2022 was the peak publication with 142 because that year, the COVID-19 pandemic had just occurred.
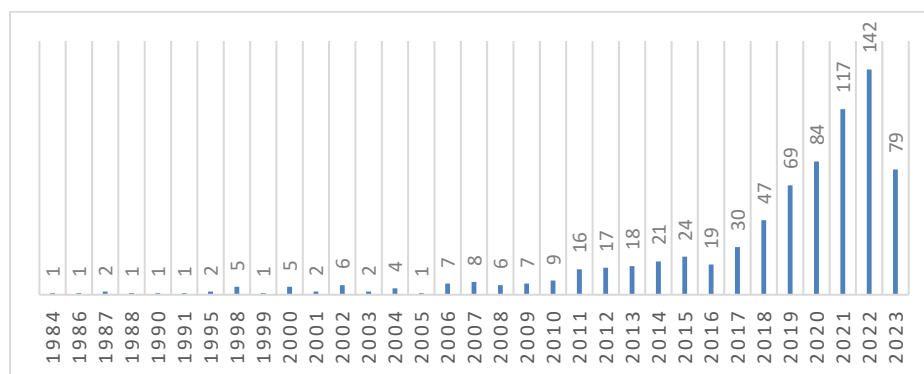

Figure 2. Documents by Year

Most Relevant Authors

Figure 3 shows a graph of the ten most influential authors in publications about academics and burnout. Leading the pack with 14 publications is Lee, SM, followed by Salmela-Aro, K with 10 documents, and followed by Korhonen and Shih with 5 documents each, then followed by Bradshaw, Fincham, Kiuru, Lee J, Majkowich M, and Ray RW each with 4 documents.
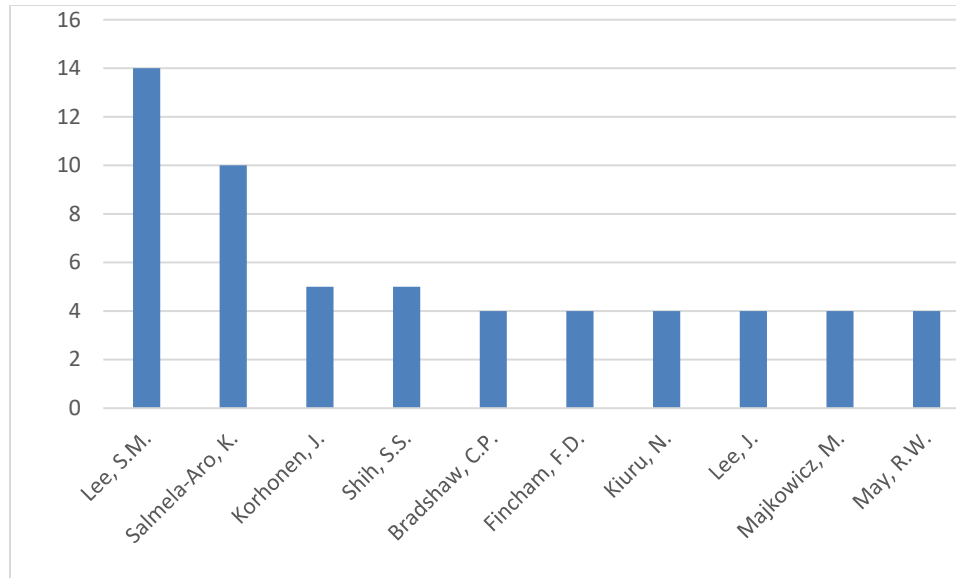
Figure 3. Document By Author

Documents by Affiliation

Figure 4, 'Documents by Affiliation,' the top ten affiliates in publications about academic burnout are displayed in Figure 4. With 17 affiliates, Helsingin Yliopisto is in the lead, Korea University has 15 affiliates, and Harvard Medical School and the University of Pennsylvania have 12 affiliates each. In fifth place is Brigham and Women's Hospital, with 11 affiliates.
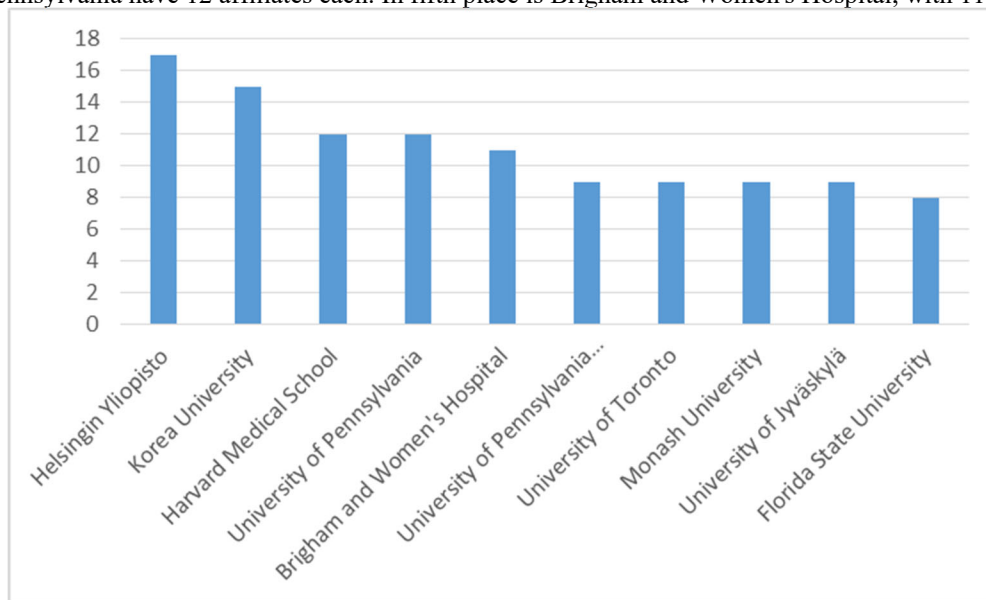

Figure 4. Documents By Affiliation

Documents by Country

Figure 5, 'Documents by Country/Territory,' Figure 1.5 displays articles on academic burnout by nation. With 315 documents overall, publications are led by the United States. China sent 42 papers in response to them. In third place is Canada, with 40 publications, followed by Australia and Iran, with 39 and 34 publications, respectively. The European continent dominates with 5 countries, while the Asian continent countries occupy the second dominant position. This shows that countries on the European continent popularly carry out research with the academic and burnout theme.
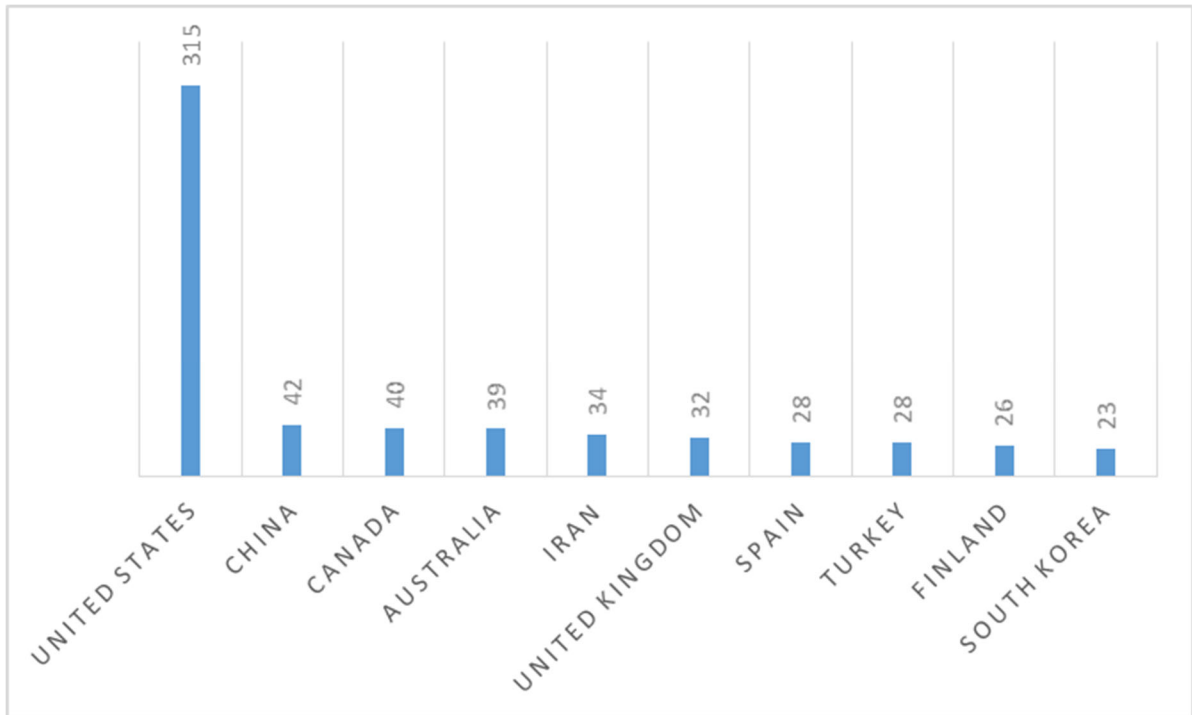
282

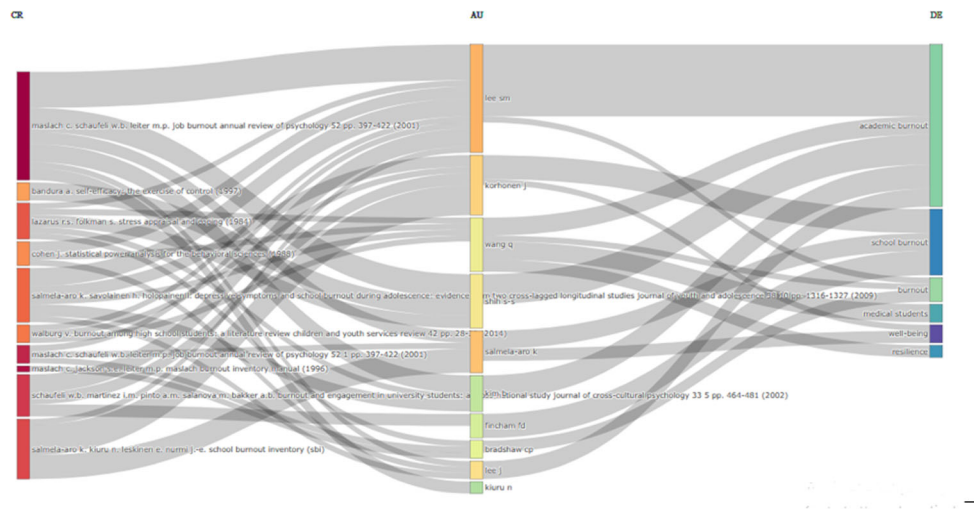**Figure 5.** Documents By Country/Territory

Three-Field Plot

Figure 6. Three-Field Plot

In Figure 6, contains 3 elements that are observed. Based on the journal's name, Lee, SM shows the author who most frequently contributes to its publications, especially those that raise the theme of academic burnout. The size of the plot shows how many publications relate to that theme. Job Burnout Annual Review of Psychology is the publication that publishes the most research on the topic of academic burnout. It is indicated by a dark red display and is associated with several authors, including Lee SM, Shih S, Salmela-Aro K, Kim B, Lee J, and Kiuru N.

Ten bar charts are shown in the image above. The size of the bar chart indicates the number of research articles each author has published. Of the ten writers, Lee SM, Korhonen J, Wang Q, Shih S, and Salmela-Aro K authored the most papers about academics and burnout.

A third component is that every study topic links to a writer who has produced significant work on ICT literacy. There are five keywords based on the analysis results, with school and academic burnout ranking the highest. This demonstrates how closely the term is associated with ICT literacy study.

Most Global Cited Document

Schaufeli Wb had the most citations overall in 2002, and the Zee M article received the most citations annually. For example, Schaufeli Wb, with a TC of 1519, only has a TC per year of 69.05; this is smaller than Zee M, with a TC of 677, but its TC per year is 83.38. In this theme, TC has no influence on TC per year. Furthermore, TC in this topic is unaffected by the year of publication.

Table 2. Most Global Cited Document

| Paper	Total Citations	TC per Year	Normalized TC
Schaufeli Wb, 2002, J Cross-Cult Psychol	1519	69.05	4.44
Zee M, 2016, Rev Educ Res	667	83.38	10.93
Flook L, (2013). Mind Brain Education	330	30.00	7.56
Evers Wjg, 2002, Br J Educ Psychol	263	11.95	0.77
Iverson Rd, (1998). J Vocat Behav	238	9.15	2.01
Tokar Dm, (1998). J Vocat Behav	232	8.92	1.96
Soenens B, 2012, J Educ Psychol	221	18.42	4.12
Geurts S, 1999, Soc Sci Med	213	8.52	1.00
Lackritz Jr, (2004). Teach Teach Educ	182	9.10	1.93
Hill Mr, (2018). Med Educ Online	174	29.00	6.19

Network Analysis
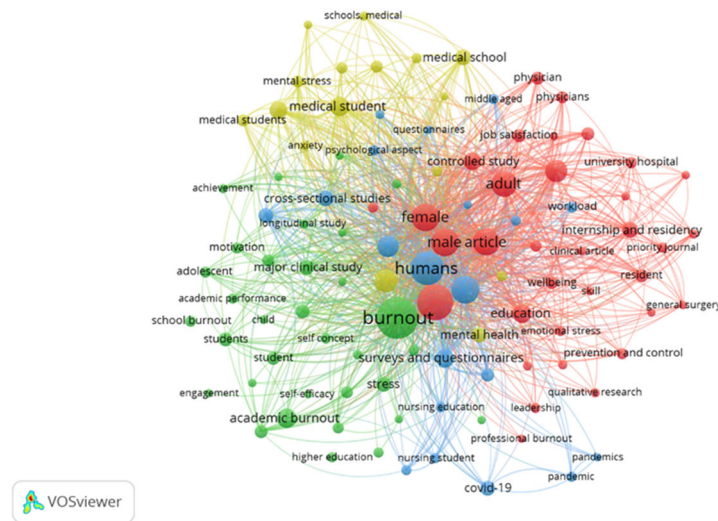
Figure 7. Network Analysis

An occurrence analysis from burnout and education study is shown in Figure 8 above, with a minimum cluster size of 1. Four clusters have developed. 34 things make up Cluster 1, 33 items make up Cluster 2, 20 items make up Cluster 3, and 16 items make up Cluster 4. With a total link strength of 367, "burnout" is the most popular keyword.
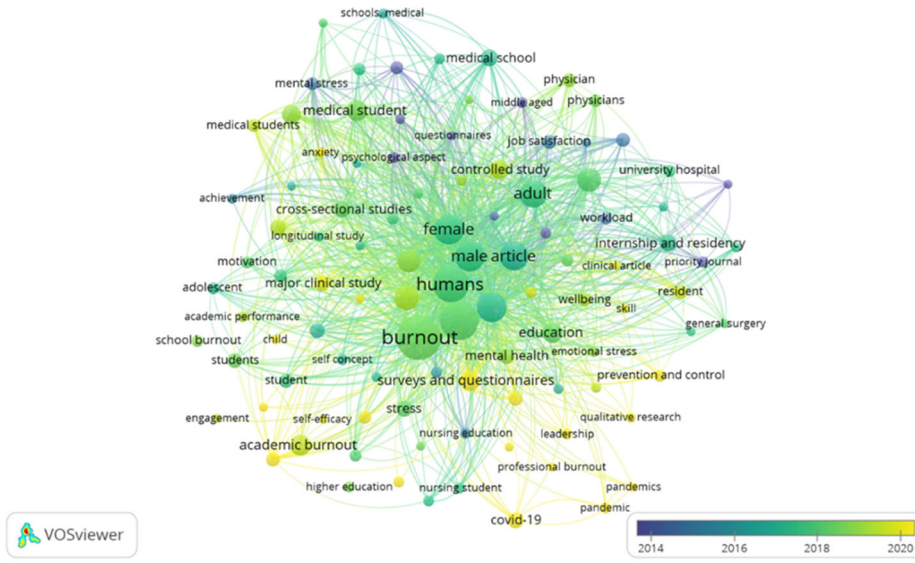
Figure 8. Overlay Visualization

The overlay-based keyword network analysis is shown in Figure 9. Academic research, clinical investigation, surveys and questionnaires, and preventive and control measures have been utilized in recent years. Meanwhile, since 2014, the terms workload, job satisfaction, and mental stress have been used often.
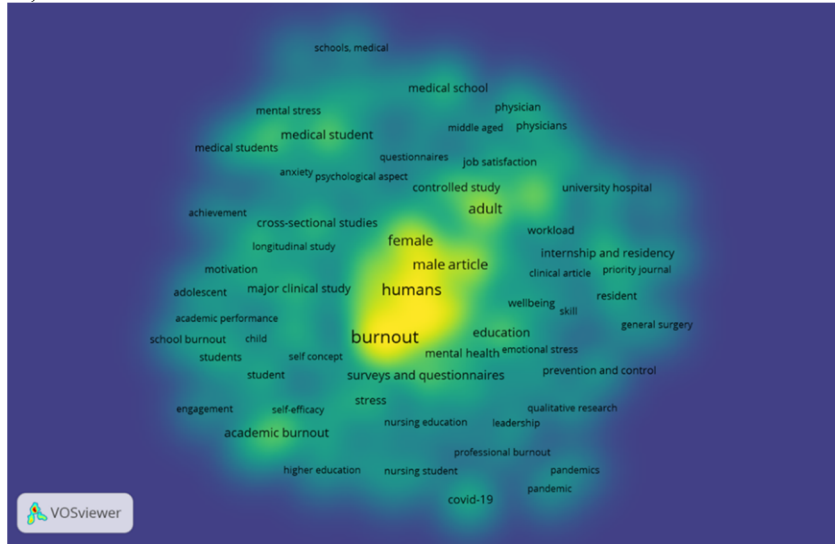

Figure 9. Density Visualization

The keywords burnout, humans, and male articles have a high density, so it can be concluded that they are often researched. Moreover, keywords that still need to be researched are engagement, achievement, and schools and medical, characterized by low density.

Table 3. Research Keywords

	Keywords	Occurrences	Clusters
1.	Burnout	367	2
2.	Academic Achievement	46	
3.	Major Clinical Study	51	Tiredness in
4.	Stress	47	Achieving Studies

5. Academic Burnout	81		
		3	
1. Survey and Questions	77		
2. Cross-sectional Study	51		Educational Model
3. Burnout, Professional	163		
4. Questionnaire	103		
5. Covid-19	47		
1. Male	166	1	
2. Adult	145		
3. Education	79		Human Studies
4. Medical Education	105		
5. Controlled study	67		
1. Medical Students	86	4	
2. Psychology	120		
3. Medical school	53		Mental Education
4. mental health	47		
5. Mental Stress	34		

Table 3 shows each cluster's occurrence, representing the main themes in academic research and burnout. The theme in the first cluster is fatigue due to academic pressure, and the theme in the second cluster is the learning process. The theme in the third cluster is medical education. The theme in the third cluster is mental health.

Conclusion

In the modern era, burnout has become a serious issue that affects various aspects of life, including the academic world. In an academic context, burnout can be experienced by students, lecturers, researchers, and individuals involved in the education and research process. Burnout can harm an individual's physical and mental well-being, such as extreme fatigue, depression, anxiety, and decreased motivation and interest in academic work. Existing research provides strong evidence regarding the prevalence of burnout in academic circles. For instance, research on the "Maslach Burnout Inventory" has revealed that emotional weariness, depersonalization, and lowered self-esteem are the three primary components of burnout. With increasing awareness of the impact of academic burnout, many educational institutions and academic organizations have begun taking steps to prevent and address this problem. Social support, effective time management, and mental well-being programs have been recognized as essential factors in reducing the risk of burnout among academics. Publications with academic friends and burnout will peak in 2022.

The most relevant author is Lee SM, who has 14 publications. With 17 affiliates, Helsingin Yliopisto is affiliated with the most publications. With 315 documents, the United States has the most publications. The United States has the biggest MCP. With 1519 citations, Schaufeli Wb, 2002, J Cross-Cult Psych is the paper with the most citations. The primary theme in research on critical thinking is "Job." "Burnout" is the dominant keyword with a total link strength of 367. The key to workload, job satisfaction, and mental stress is the keyword used in 2014. There are 4 mainstream themes, namely A, B, C, and D. The limitations of this research are only exploring Scopus-indexed datasets and analyzing documents with journal article types in English without considering global indexations, languages, and document types other than articles. The limitations or weaknesses in this research lie in the research process, and the researcher realizes there must be shortcomings and many weaknesses in a study. One of them is from data collection and processing sessions. In collecting and processing data, the author still needs help due to the author's lack of knowledge and ability.

Acknowledgments

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