

Research Article

Unraveling Job Stress and Work-life Balance in Healthcare Workers: A Bibliometric Analysis

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Abstract.

Due to their demanding jobs, unpredictable schedules, and heavy workloads, healthcare workers frequently struggle to strike a balance between their professional and personal lives. Conflicts between work obligations and personal needs may result from this imbalance, which in turn may raise stress levels at work. This study employs the bibliometric analysis method by conducting a literature study of relevant books, journals, and articles extracted from the Scopus database dating between 2006 and 2022, which consisted of a total of 152 articles. Its findings indicate a significant relationship between stress at work and work-life balance for healthcare workers. High workloads, a lack of organizational support, and lack of control over work schedules were all found to contribute to health workers experiencing more job stress. Negative effects of an unbalanced work-life schedule include increased levels of exhaustion, depression, and lower quality of life. Therefore, it is crucial for healthcare organizations to pay attention to the variables that may impact the work-life balance and stress levels of healthcare professionals. Work-life balance can be improved by taking steps like offering psychological assistance, employee welfare programs, and setting up a more balanced work schedule.

Keywords: job stress, work life balance, healthcare workers, bibliometric analysis

1. Introduction

In recent years, the world has witnessed the emergence of various new diseases that have disturbed the global community. The extensive and frequently fatal effects of this phenomenon startle the world and provide severe concerns and problems for the global society (see Figure 1). Covid-19, Ebola, MERS (Middle East Respiratory Syndrome), Zika, SARS (Severe Acute Respiratory Syndrome), and others are a few examples of new diseases that have appeared and surprised the globe. Along with a number of new diseases that have shocked the world, there is also a dearth of a functioning healthcare system [1]. The spread of novel diseases is exacerbated by inadequate health

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infrastructure, which includes limited access to medical treatment, insufficient sanitary facilities, and shortcomings in systems for early identification and response to epidemics [2]. Healthcare workers' workloads and stress levels rise as a result of the health system's lack of readiness and capacity to handle these novel and emerging diseases.

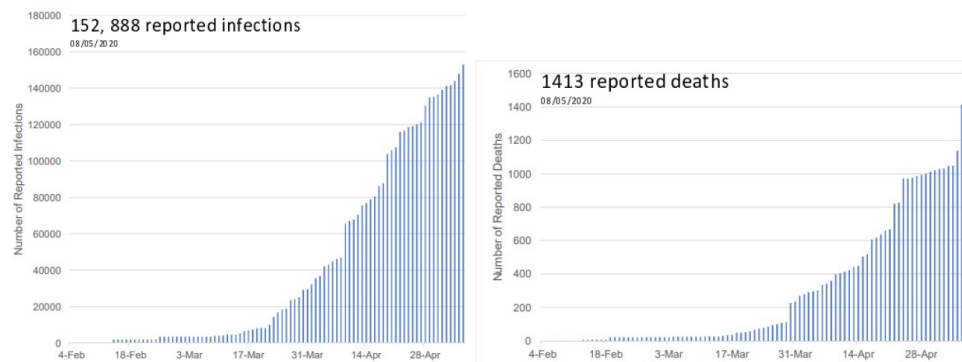


Figure 1: Increase in Covid-19 infections and deaths in healthcare workers worldwide. Source: Bandyopadhyay et al., 2020 [3].

Job stress, or stress at work, may become an issue in organizations as people try to strike a balance between their work obligations, personal interests, and interests outside of the workplace [4]. This is especially true for healthcare workers who work in a field that involves a substantial psychological strain and could potentially cause stress [5]. They frequently face emotionally taxing situations, such as witnessing a patient suffer illnesses or pass away, assisting a patient's family, or having to decide on morally challenging choices. Stress, mental health fatigue, and mental disorders can be brought on by this heavy psychological burden [6,7]. Figure 1 depicts the pandemic's major impacts on society and healthcare professionals. They serve in the highly risky positions by offering the best medical care, while safeguarding themselves and taking care of their family. Despite playing a crucial role in delivering healthcare, health professionals often do not receive proper recognition and encouragement.

"Work life balance" emerges responding to companies paying attention on employees' psychological needs and job satisfaction, which gives each employee the chance to manage their time equally between work and personal obligations, making their lives more orderly and well-balanced [8]. This work-life balance can also improve social interactions, job satisfaction, and employee commitment [9-12].

This study aims to find out whether work-life balance is affected by job stress in health professionals, what are the most popular keywords associated with this research topic, and whether these keywords have changed or evolved over the last five years, which researchers have published the most scholarly articles about this topic, what affiliates

and nations they are from, and what top publications have contributed to this research topic.

2. Literature Review

Stress is an adaptive response mediated by conflict between individuals and psychological roles that arises as a consequence of the occupied environment, situation, or external event that places an excessive psychological or even physical burden on a person [6,7]. Apart from this explanation, stress can also be positive. The term 'eustress' can provide encouragement to a positive definition and motivation towards a better situation [13]. Job stress, which is a more concise term for work-related stress, can pose as an issue particularly in occupations that offer services such as healthcare workers [14].

To lead a balanced life, everyone aspires to maintain a balance between job and family. Employees now seek out or favor businesses that provide exclusive and alluring work-life balance policies for this reason. Work-life balance practices are deliberate adjustments to an organization's policies or culture that are intended to lessen friction between work and personal obligations and improve employees' performance in both their jobs and other responsibilities [15].

Work-life balance is essential to maintaining a fulfilling and healthy life. To lead a balanced life, everyone aspires to maintain a balance between job and family. It helps individuals to maintain good physical and mental health, increases productivity, and improves overall well-being [9-12].

When work and personal life are balanced, individuals including healthcare workers can perform better at their jobs and have more energy to engage in other activities that are meaningful to them. Work-life balance is a key idea in the literature on employee-employer relations and is pertinent from the perspective of boosting employee happiness with their employer [16]. Employees nowadays seek out or favor businesses that provide attractive work-life balance policies for this reason.

3. Methodology Research

The data for this study was extracted from Scopus database in October 2023 dating between 2006 and 2022. The database offers bibliometric analysis that includes global and local metrics for authors, articles, journals, institutions, and comparisons between

countries [17]. Additionally, the word co-occurrence network and cooperation network were created using the VOSviewer program [18,19]. Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) procedures is implemented in the study. The data selection process in the study is depicted in Figure 2.

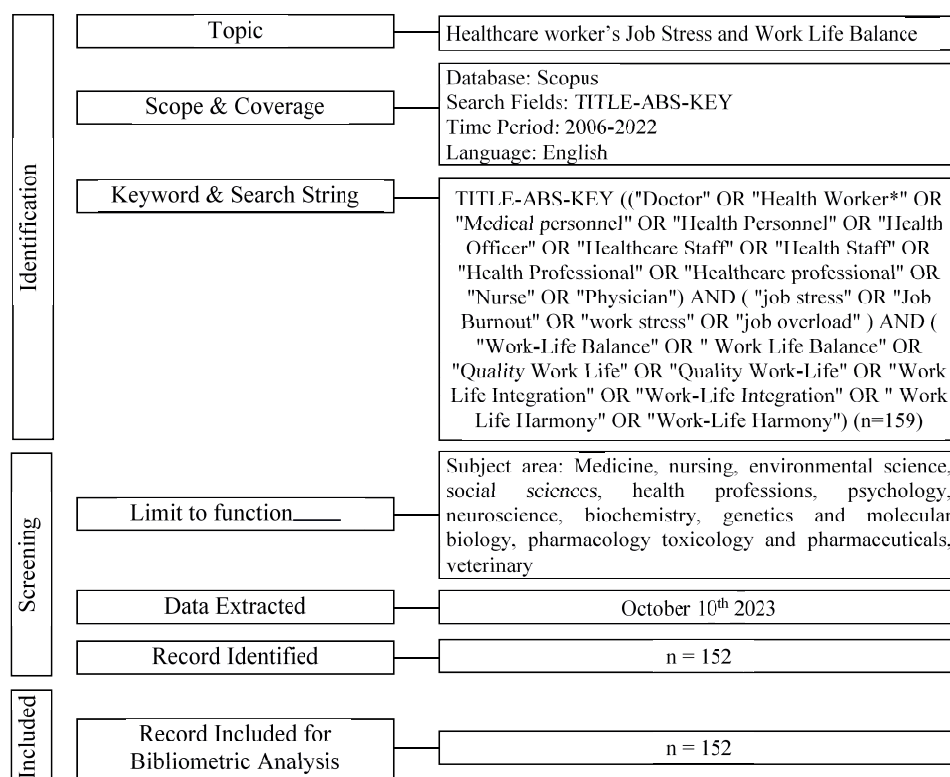


Figure 2: Research data selection process.

4. Results and Discussion

The bibliometric analysis seeks to ascertain developments in the number of literature or research linked to work-life balance and job stress for health professionals. 165 articles that had been selected through the previously mentioned document selection process were subjected to analysis. After sorting relevant articles, a total of 152 documents on this topic are retrieved. The oldest piece of writing on the subject was discovered from an article published in 2006.

According to Figure 3, there has been a noticeable increase in publications regarding work-life balance and job stress from health professionals starting in 2015 which rose in 2020 with a total of 35 publications. 2020 marked the Covid-19 pandemic which spread to numerous nations around the world. The pandemic may be the reason behind the

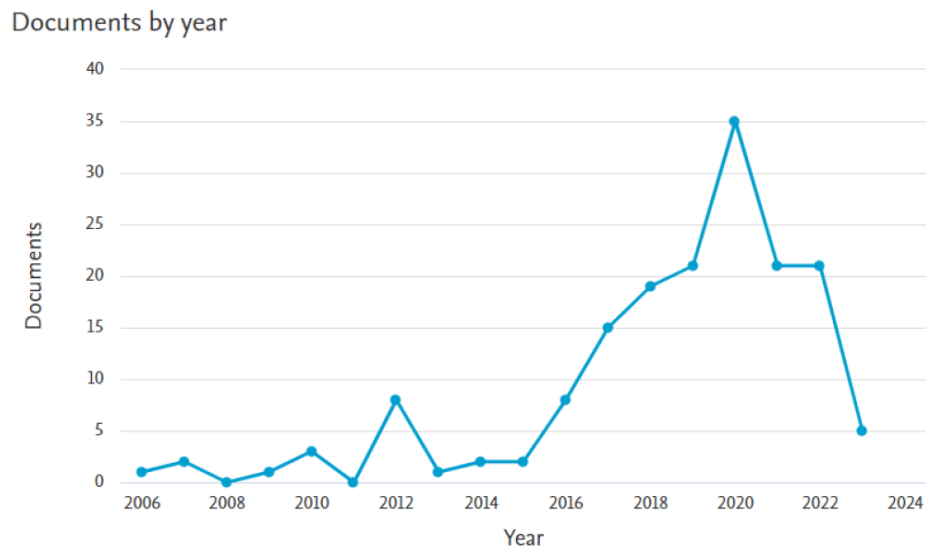


Figure 3: Total Annual Research Publication on work-life balance and job stress for healthcare workers between 2006-2022.

rapid increase in studies related to job stress and work-life balance in 2020 because health workers work on the frontline to aid Covid-19 patients. This surge, however, is shown to decrease from 2022.



Figure 4: Research Association by Country.

The relevant publications mostly come from United States and United Kingdom (see Table 1). Related to international collaboration, many articles are the result of affiliation of authors between countries shown in red dots, namely the United States along with Germany, and also the Netherlands. and the United Kingdom which has affiliations with Australia and Spain (Figure 4).

The most cited study is by Fortney et al, which addressed the significance of modified mindfulness training to improve doctors’ well-being, lessen work stress and could have

TABLE 1: Top 10 Countries that published highly cited papers on work-life balance and job stress for healthcare workers.

Country	Documents	Citations	Total Link Strength
United States	63	1715	8
United Kingdom	23	393	5
China	5	256	0
Sweden	3	183	0
Australia	11	131	3
Germany	6	121	1
Ireland	4	74	2
Italy	3	74	0
Netherlands	4	62	1
Spain	3	46	1

TABLE 2: Top 10 highest cited papers on work-life balance and job stress for healthcare workers.

Author (Year)	Citations	Links
Fortney (2013)	292	1
Shanafelt (2012)	192	3
Harolds (2016)	164	1
Rabatin (2016)	132	2
Dunn (2007)	131	0
Lu (2017)	118	0
Hammig (2018)	103	1
Lu (2016)	79	0
Shanafelt (2016)	78	2
Neumann (2018)	78	1
Sethi (2020)	68	0

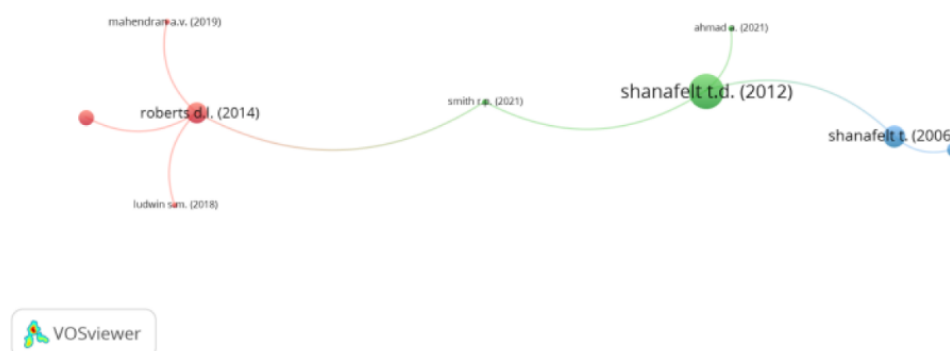


Figure 5: Citation network visualization.

effects on patient care (see Table 2). It was mentioned 292 times [20]. Additionally, the second list of studies by Shanafelt, et al., which has been mentioned 192 times, includes a discussion that focuses on identifying concrete actions that surgeons can

take to reduce fatigue and enhance their quality of life (QOL) both personally and professionally (see Figure 5).

The citation network visualization in Figure above depicted citations and links from Table 4 gives an overview of research links that are based on the amount of citations made from one study to another, with the goal of illustrating citations between studies. The research results from Fortney et al., Shanafelt et al., and Harolds which received the most citations can provide valuable insight for health worker organizations in making decisions regarding steps in managing job stress to create work life balance for health workers [20,11,21],

TABLE 3: Top 10 highest co-occurrence papers on work-life balance and job stress for healthcare workers.

Author	Citations	Links
Shanafelt	172	3854
Dyrbye	125	3073
West	89	2337
Maslach	83	1279
Leiter	51	894
Bakker	43	340
Schaufeli	42	625
Satele	40	1286
Linzer	37	564
Jackson	34	515
Seigrist	31	225

Table 3 above displays a list of co-citations based on authors sorted from research with the highest number of citations. From this table, information is obtained that research from Shanafelt, et al shows that the highest number of relationship strengths is 3845 links. Figure 6 shows the results of identifying relationships between studies where the connecting line shows that the two studies are jointly cited in another article. Clusters are created, grouping objects based on color and indicating their proximity to one another.

Ten nodes make up the red cluster, which represents the quantity of connections between studies that simultaneously cite one another's study on the same subject. So, it seems that the discussion in the red cluster centers on the idea of burnout as it applies to the workplace generally [22, 23].

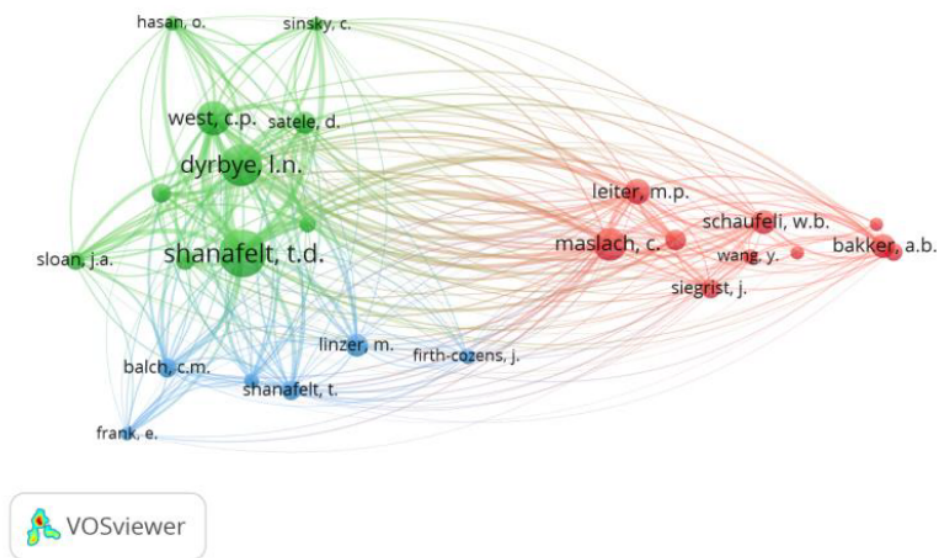


Figure 6: Co-occurrence Visualization.

The green cluster also has 10 nodes. It focuses on job satisfaction and its relationship with career path in the health workforce [7, 12]. Meanwhile, the blue cluster has 6 nodes, where several studies are related because they are cited together, such as research from Linzer et al. and Dyrbye et al. [9, 24]. The discussion focuses on a survey of the work life and health of medical personnel.

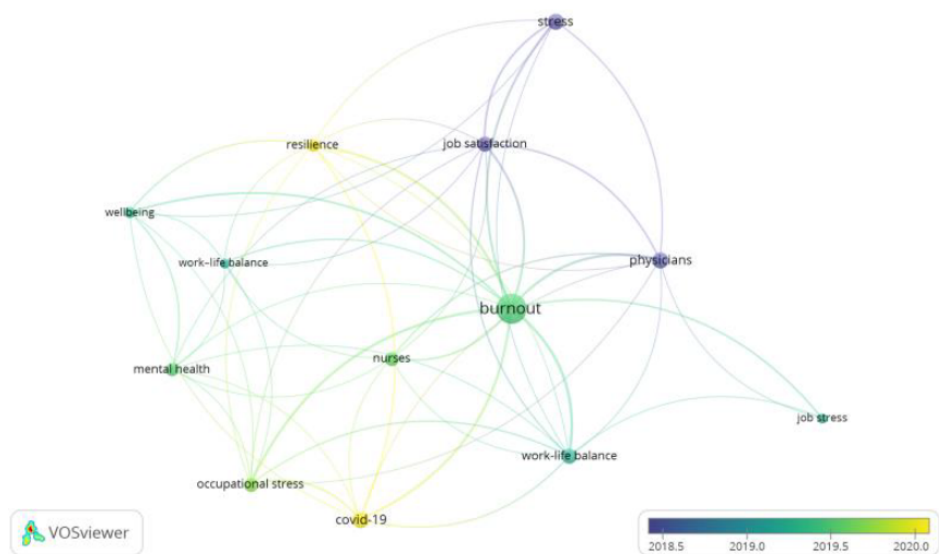


Figure 7: Overlay Visualization of Research Trends from Keywords.

The research trend analysis in the Figure 7 shows co-occurrence which aims to display the mapping and level of data distribution in the years included in the scope of the analysis. Analysis was carried out to determine what keywords frequently appeared

in the specified publication year, so that the range of publication years was determined into two periods:

a. Period I (2018-2019)

In the following period, several keywords displayed can be seen in the purple and blue lines, which show several keywords that have become research trends, including physician, stress, job satisfaction, work-life balance, job stress.

b. Period II (2019-2020)

In the following period, several keywords displayed can be seen in the green and yellow lines which show several keywords that have become research trends, including burnout, nurses, covid-19, resilience, wellbeing, work-life balance, mental health, and occupational stress.

Theoretically, this study's findings have shed light on emerging patterns in the study of work-life balance and job stress, and they also demonstrate how a literature review may be a useful alternative research strategy for academic studies that aim to produce in-depth findings. Among the terms of management, the research findings from Fortney et al., Shanafelt et al., and Harolds that earned the most citations can give health worker managers important knowledge when making decisions about reducing workplace stress and fostering work-life balance among health workers [20, 21]. The findings of this study have provided new insight into current research trends concerning work-life balance and job stress, and also demonstrate that a literature review can be an academic research strategy to yield thorough findings.

5. Conclusion

Based on the study that has been performed it can be said that the majority of published research documents, or over 70 out of every 152 papers discovered, originate from the United States. The study by Fortney et al., for instance, which was highly cited for 292 times, emphasizes the value of mindfulness in promoting doctors' well-being and serving as a tool to lessen work-related stress [20]. More than that, the analysis's findings demonstrate that work-life balance for healthcare professionals is significantly impacted by job stress. Because of the complexity of the work they do, they don't spend enough time for themselves and with their families during their free time, which could negatively impact their body stability and professionalism at work. Popular research terms related to burnout, job satisfaction, and work-life balance are interconnected in the discussion,

as these terms change over time as a result of trends like Covid-19, the greater focus from physicians towards nurses, and other factors.

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