

# EXPLORING THE RELATIONSHIP BETWEEN QUALITY OF WORK LIFE AND PERFORMANCE IN HOSPITAL SETTINGS: A BIBLIOMETRIC ANALYSIS

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## Abstract

**Background-** Quality of Work Life (QWL) is gaining acknowledgment as a key aspect influencing the performance of employees, especially in high-pressure environments like hospitals. However, comprehensive evaluations of its impact in this context remain limited.

**Objective-** This study seeks to fill the research void by analyzing how QWL affects healthcare workers' performance in hospitals through a bibliometric review of recent literature.

**Method-** The study used bibliometric methods to analyze 53 peer-reviewed articles from the Scopus database published between 2015 and 2024. The search employed the keywords "Quality of Work Life" AND "Performance," focusing on English-language publications to ensure consistency.

**Results-** Findings reveal that QWL significantly influences healthcare performance. Key contributing factors include work-life balance, a safe working environment, career development opportunities, and social support. Conversely, poor QWL correlates with burnout, stress, and turnover intention, ultimately reducing productivity and care quality.

**Conclusion-** Improving QWL is a strategic measure to boost optimal performance among the health workforce and enhance the overall quality of hospital services. Hospital leaders must prioritize HRM-based initiatives such as implementing flexible work schedules, improving workplace safety, providing continuous training and development, and cultivating a supportive organizational culture to achieve long-term success and increase job satisfaction among healthcare professionals.

**Keywords:** Quality of Work Life; Performance; Job Satisfaction; Health Workforce; HRM

## 1. INTRODUCTION

Quality of work life (QWL) is a multifaceted notion that encompasses the satisfaction of employees across various aspects of the work environment. It is widely regarded as a fundamental component of healthcare enhancement, given its effect on satisfaction of job and employee performance (Al Mutair et al., 2022). In the hospital environment, improving QWL is critical as it directly impacts job satisfaction and the effectiveness of services. For example, poor working conditions and high workloads often lead to stress and burnout, ultimately reducing productivity and patient care quality (Eliyana & Permana Emur, 2020). In this case, it is critical to the creativity of a work environment, commonly called QWL, and the company in an effort to stabilize its workers (Yanriatuti et al., 2019).

QWL can be assessed quantitatively through various indicators. The first indicator relates to fair compensation (Khan et al., 2024). The compensation provided to employees is manifested in monetary form, with a definite guarantee of disbursement within a certain number of weeks or months. The second indicator concerns providing a safe and health-promoting work environment (Woo, 2012). A safe workplace includes an atmosphere without excessive noise, free from visual distractions such as inadequate lighting, and uncontaminated by environmental pollution. The third indicator emphasizes opportunities for employees to utilize and improve their abilities, which describes the extent to which the organization facilitates employee involvement in using and advancing their skills, as well as whether the nature of the work presents sufficient challenge to encourage full participation (Venkatesh & Aarthy, 2013). Opportunities for professional growth and skills development include training and continuing education, which aim to augment competencies relevant to job performance. The fourth indicator relates to social interactions in the workplace (Winslow et al., 2019). It includes how well the work environment and colleagues accept an individual's presence and the extent to which the workplace is free from harmful biases. Employee confidence is often supported by a workplace environment characterized by the absence of harmful deleterious studies, principles of egalitarianism, opportunities for upward mobility, supportive primary groups, a sense of collective camaraderie, and a culture of openness among employees. The fifth indicator addresses employee rights in organizational settings. This involves evaluating the extent to which the organization adheres to fulfilling rights to employees and how it protects personal freedoms (such as privacy) (Hrenov et al., 2017). Numerous earlier investigations have demonstrated a strong interplay between QWL and job satisfaction among hospital staff. Studies show that nurses with high QWL have higher satisfaction with their jobs and better performance (Lumbreras-Guzmán et al., 2022). Research shows that the factors that most often cause health

workers to leave hospitals are personal development factors, low job satisfaction, organizational culture, organizational commitment, and interpersonal relationships with superiors and colleagues (Yamazaki et al., 2015). If job satisfaction in the hospital increases, it can attract health workers to keep their jobs (Halcomb & Bird, 2020). Conversely, if unsatisfied with their jobs, they will desire to leave the workplace, impacting productivity, creativity, and length of service (Liu et al., 2016).

Previous research analyzing the correlation between QWL, employee performance, job satisfaction, and patient care quality has utilized various instruments and methodologies to assess QWL. These include tools like the Walton questionnaire as well as the Quality of Work Life Assessment Inventory (QWL-AI). This investigation scrutinizes the interplay between QWL and performance within a hospital context through bibliometric analysis. This methodology seeks to outline the research development on QWL and hospital performance, identify significant trends, and highlight them. Studies on QWL and hospital performance consistently emphasize the importance of improving working conditions and reducing occupational hazards to enhance satisfaction with jobs and performance among professionals in healthcare (Camargo et al., 2021).

**The gap in this research is that** existing studies are inadequate in mapping the knowledge landscape related to QWL in the hospital context. The lack of studies that trace the development of the literature longitudinally shows the need for an approach that can present a comprehensive and data-based knowledge mapping.

Within this framework, a bibliometric approach is relevant and necessary. This approach enables systematic tracking of QWL studies, identification of trends in developing studies and countries, and mapping of themes and trends in QWL literature. However, the bibliometric approach in QWL studies in the hospital sector is still minimal. This emphasizes the urgency of conducting bibliometric research to fill the literature gap and make a significant academic contribution.

## 2. METHOD

This investigation utilizes a descriptive bibliometric analysis approach to explore the interplay between QWL and performance in a hospital setting. Bibliometric analysis allows quantitative evaluation of publication patterns, key contributors, and emerging trends in the relevant literature. Articles included were original articles or systematic reviews that had undergone a peer review process on the Scopus database between 2015 and 2024 to ensure that the studies reviewed reflected the latest trends and contemporary developments in the healthcare field. As part of the inclusion criteria, only English-language literature was selected to avoid linguistic bias and ensure consistency of analysis, thereby facilitating international comparison of findings. Documents that did not meet these standards, such as books, book chapters, conference papers, and articles that lacked a clear methodological foundation, were excluded from the analysis. In addition, the selection also focused on literature that specifically addressed aspects of QWL and performance in the context of hospitals or healthcare institutions so that only studies relevant to this topic and subject area were included. The screening process was conducted according to the PRISMA guidelines to ensure the bibliometric review's overall validity, reliability, and consistency.

This study's primary data source is the "Scopus database," which is renowned for its thorough covering of peer-reviewed scientific literature. The search was conducted using the following query:

TITLE-ABS-KEY ("Quality of Work Life") AND TITLE-ABS-KEY (Performance)

This search strategy was designed to capture relevant publications focusing on QWL and performance. The data collection followed a systematic screening approach adapted from the PRISMA guidelines. The steps are as follows.

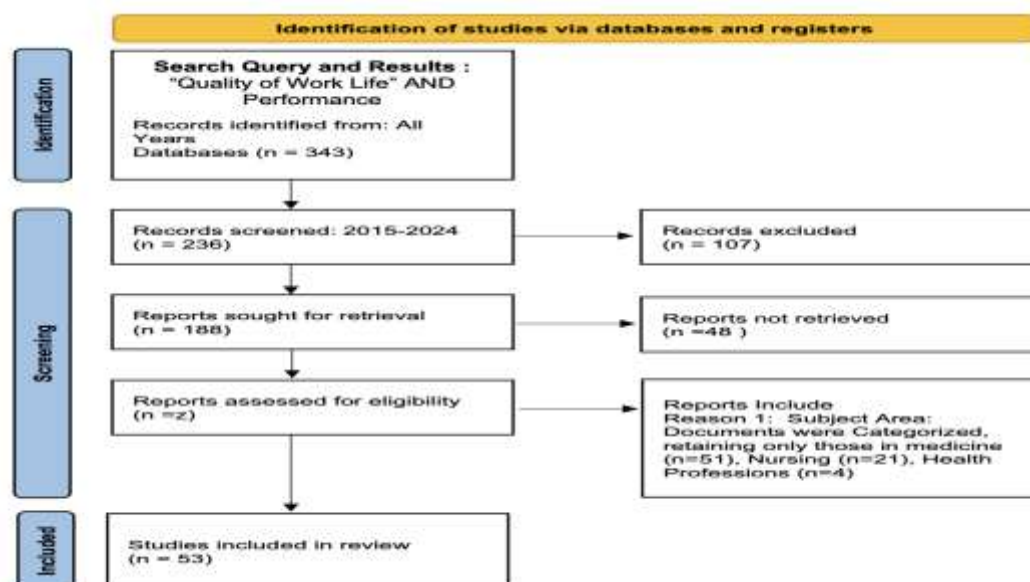


Fig 1. Data collection techniques

Adopt from Prisma Chart

Note: Several duplicate or irrelevant records were excluded during the screening process, including articles reviewed in previous systematic reviews, non-English publications, conference papers, and documents outside the specified subject areas.

The bibliometric analysis in this study was conducted using VOSviewer software, which is specifically designed to visualize bibliometric networks. Three types of visualizations were utilized to give a thorough, detailed examination of the literature on QWL and performance in hospital settings:

The Network Visualization displays the relationships between keywords, authors, countries, or institutions. This study used network visualization to identify the co-occurrence patterns of key terms related to QWL and Performance. This visualization helps to reveal which topics are central or peripheral to the research domain. The Overlay Visualization provides temporal insights by showing how specific keywords or research topics have evolved. The color gradient indicates the average publication year of documents related to each keyword. The Density Visualization highlights areas where the concentration of research activity is highest based on keyword frequency or citation impact.

### 3. RESULTS AND DISCUSSION

The study of QWL and performance in hospitals has received increasing attention in academic research, especially regarding the well-being of healthcare workers and its impact on medical services. This topic encompasses aspects, i.e., work-life balance, workload, work environment, and organizational policies that play a part in improving or deteriorating healthcare workers' performance.

#### 3.1. General information, Publication by Year and Country

Based on the publication trend (Fig.2), related studies fluctuate yearly. In the early period (2015-2017), the number of publications was still low, with a downward trend until the lowest point in 2017. However, after that, there was a significant increase, especially in 2018, and it peaked in 2022 with the highest number of publications. This shows the increasing academic interest in this topic.

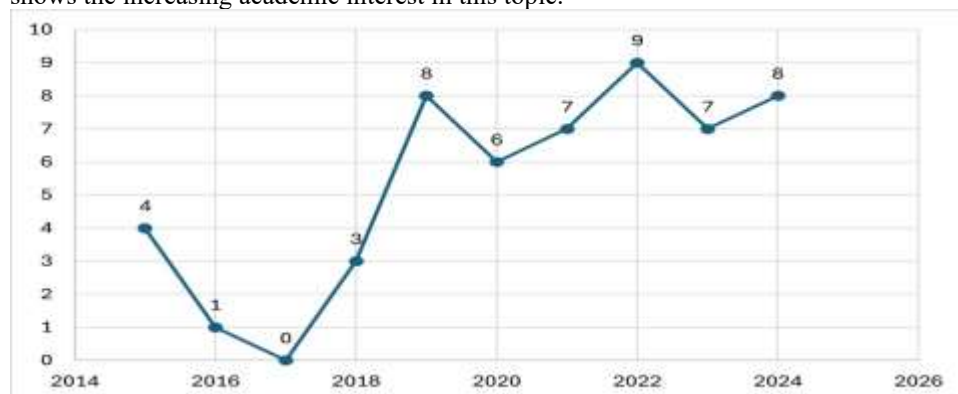


Fig 2. Publication by Year

Furthermore, from the above publication trends, spread across several countries (Fig. 3), research on QWL and performance in hospitals has been developed in countries with developed health systems and strong labor regulations, such as the United States, United Kingdom, Canada, as well as several European and Asian countries. These countries generally pay high attention to the well-being of health workers as part of efforts to improve the effectiveness of hospital services. This publication trend highlights the urgency and significance of the topic of QWL within the global healthcare context, highlighting the necessity for additional research to comprehend the dynamics and factors that affect the implementation of policies concerning the welfare of medical personnel in various countries.



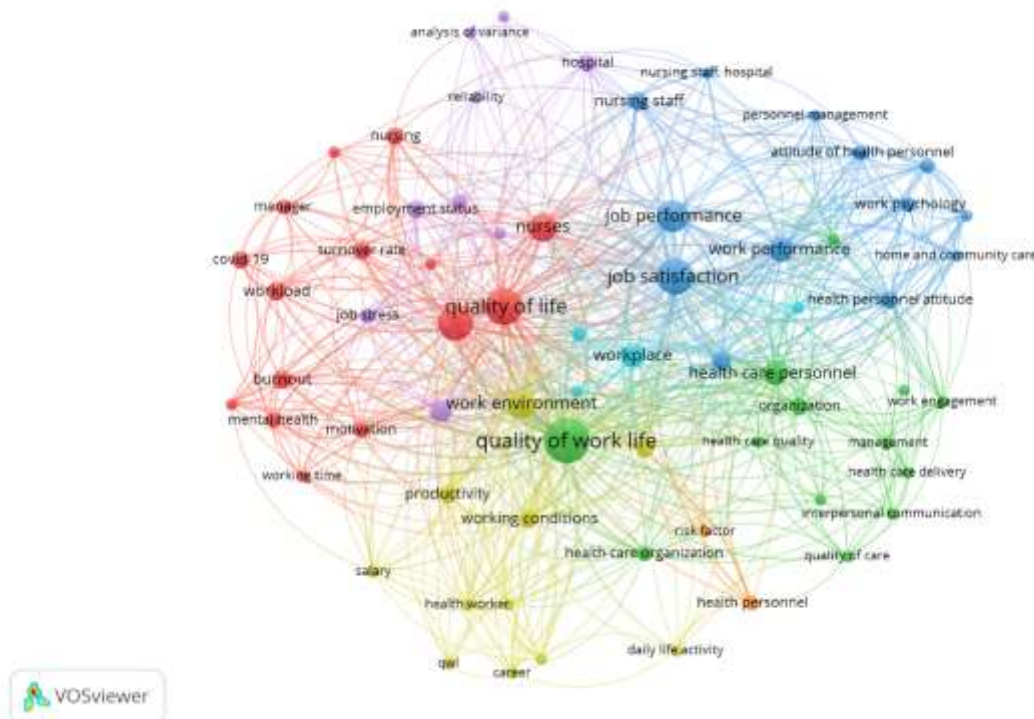
Fig 3. Distribution by Geographical

Based on the dominance of research on QWL, Iran has the most. Much research has concentrated on the interplay between psychosocial aspects such as work stress, workload, and job control and healthcare workers' well-being, performance, and retention, especially among nurses. These studies revealed that increased workload and stress contribute to burnout and intention to leave the job, affecting healthcare quality (Babamohamadi et al., 2023). Furthermore, specific research investigated the efficacy of interventions, including communication training, to enhance QWL and the performance of professionals (Karimi et al., 2024). Therefore, the main focus of QWL research in Iran is to discover and mitigate variables hindering occupational well-being and promoting mental and physical health.

In Canada, the impact of management and organizational elements on health professionals' occupational well-being has been the main attention of QWL investigation. Such investigations examined the application of participatory approaches, i.e., communication, multidisciplinary team support and project, in-service training, team meetings, and approaches that contributed significantly to the improvement of psychological, social, cultural, and physical dimensions of QWL, which in turn increased engagement of work, satisfaction, and perceived care quality (Lejeune et al., 2021). Therefore, the main focus of research in Canada emphasizes that improvements in managerial aspects are key to enhancing health workers' QWL.

In Indonesia, enhancing QWL in the healthcare sector is significantly contingent upon conducive working conditions, including work-life balance, a safe working environment, and opportunities for professional development, which directly enhance job satisfaction, performance, and the manifestation of organizational behaviors. Therefore, improving QWL is principal for augmenting the efficacy of health services and mitigating burnout among healthcare professionals (Ayuningtyas & Misnaniarti, 2016).

The analysis shows considerable differences between developed and developing countries. Research in developed countries, such as Canada, which has a structured health system and labor regulations, emphasizes managerial innovation, technology implementation, and integrated policy-based interventions to improve health worker retention and performance. Meanwhile, developing countries such as Indonesia and Iran highlight basic constraints such as a lack of resources, limited infrastructure, and high workloads, resulting in low work-life balance and performance. These geographical differences emphasize the need for localized intervention strategies. For example, developed countries can leverage digital innovations and progressive policies, while developing countries must focus on improving their resource base and infrastructure. Furthermore, researchers demonstrated the interplay between QWL and performance in a hospital setting using VOSviewer software.



**Fig 4.** Network Visualization of the QWL and Performance Concept Using VOSviewer

This visualization shows how various factors related to the well-being of health workers relate to their performance. The analysis shows that **Cluster 1**, e.g., quality of work life, is closely linked with satisfaction of job, environment of work, and health care personnel. Elements—working conditions, health organization, and work-life balance—are essential elements in creating an environment that supports the health workers' productivity (Bosch et al., 2023; MeenaDevi et al., 2024).

In addition, **Cluster 2** also shows that high workload, work stress, and burnout incorporated in the Quality-of-Life cluster negatively impact the health workers' well-being. Heavy workloads and impaired mental health due



to work pressures and the effect of COVID-19 can reduce the satisfaction of the job and have implications for the decline in health worker performance. On the other hand, **Cluster 3** shows that psychological factors such as Work Psychology, Personnel Management or HRM, and Health Personnel Attitude also influence the performance of healthcare workers. The close relationship between job satisfaction, work psychology, and personnel management suggests that organizational support and good policies can increase the motivation and engagement of health workers in their work (Dai & Akey-Torku, 2020).

Overall, this analysis indicates that QWL directly impacts health worker performance. Good work environment factors can increase job satisfaction and productivity, while excessive work pressure can reduce the health of workers' quality of life and their performance. Therefore, the management of hospital organizations needs to develop policies that support the health workers' well-being, including improving conditions of work, managing workload, as well as enhancing work-life balance to ensure optimal performance and play a part in enhancing the quality of health services.

### 3.2. Mapping the Interplay Between QWL and Performance

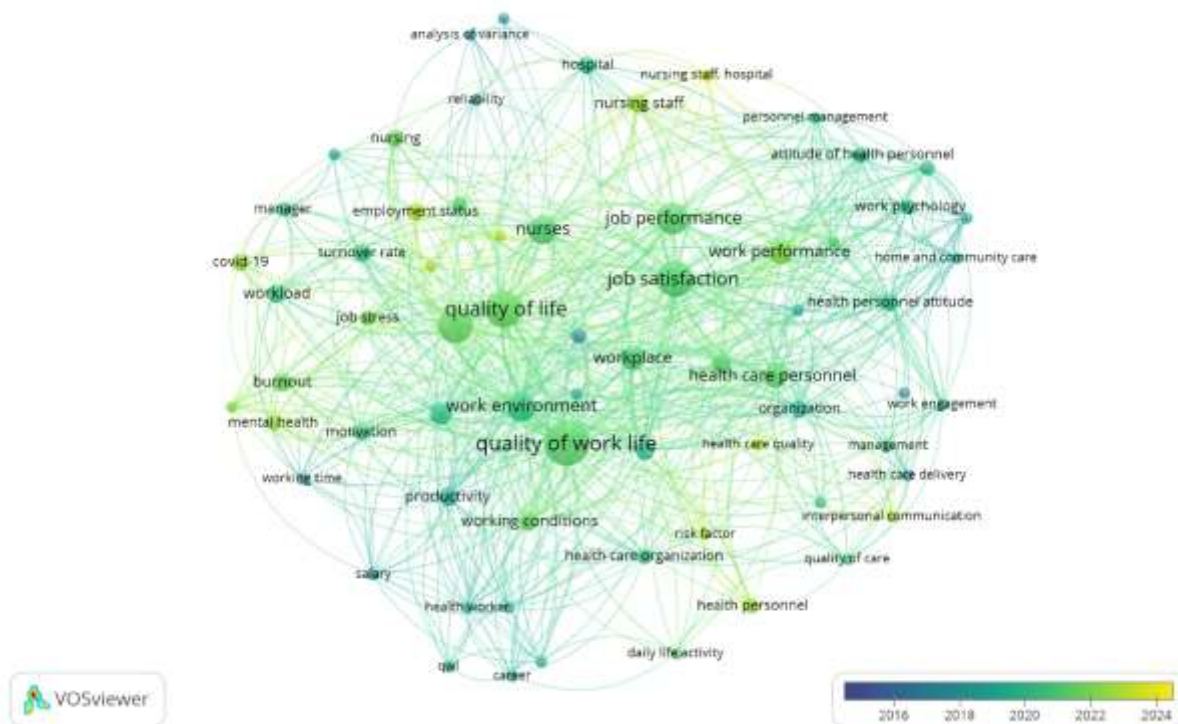


Fig 5. Temporal Visualization of QWL and Performance Concepts Using VOSviewer

Figure 5 shows the interplay between QWL and performance in the hospital environment on the basis of the trend of publication years from 2015 to 2024. The analysis indicates that the concepts of QWL and quality of life are crucial to this study, exhibiting a significant correlation with aspects, i.e., job satisfaction, job performance, work environment, and health care personnel. These factors contribute to improving health workers' working conditions and improving their performance.

Based on the publication trends on QWL above, it is explained through several research streams; first, in the last decade, empirical investigation into the correlation between performance and QWL in the health sector began in early 2015, namely the interplay between QWL, OP (organizational performance) and EC (employee commitment) in hospital health services. This study's findings exhibited that EC serves as a partial and substantial mediator in the interaction between QWL and OP (Nayak & Sahoo, 2015). Furthermore, in 2016, the research found regarding the QWL of health workers in Indonesia with Cascio's theory—compensation justice, employee involvement, a sense of security at work, a sense of pride in the institution, safety at work, career development, problem-solving, availability of facilities, as well as communication. The results generally show that the health workers' QWL in several Indonesian areas is favorable. However, certain groups continue to perceive that the work environment is not sufficiently supportive (Ayuningtyas & Misnaniarti, 2016).

Then, this study continued to develop in 2018, in which a study examined the influence of QWL and control of jobs on intention to turnover. Job control and QWL can be indispensable in the continuity of nurse performance retention in hospitals; it is a serious concern for health policymakers (Nasabi & Bastani, 2018). Another study in 2019 added that this could happen because QWL was also found to have a negative correlation with work burnout and stress, which means that the level of burnout experienced by laborers decreases as the QWL improves (Bakhshi et al., 2019). The same year also highlighted that a supportive work environment, including a sense of being valued by superiors and a good work-life balance policy, increases worker productivity and loyalty (Leitão et al., 2019).

Furthermore, in 2020, the first study using Brooks' questionnaire model and Wolf's Caring Behavior Inventory revealed that the significance of patient care quality, communication, and emotional aspects of care should be further considered (Al-Maskari et al., 2020). Improvement of QWL by superiors is necessary to improve nurses' caring behaviors regarding their performance. Research (Desselle et al., 2020) highlighted that the work preferences and general abilities of hospital pharmacy personnel are influenced by employer commitment and the work environment, ultimately impacting job efficiency and satisfaction. At the same time, another study found that nurses in Oman had moderate to high levels of QWL, where factors such as job title and nationality were the main predictors of their QWL levels (Al-Maskari et al., 2020).

Then, research amid the COVID-19 pandemic in 2021 found that high mental workload in hospital nurses negatively impacted their QWL, affecting their well-being and effectiveness (Nikeghbal et al., 2021). This statement is supported by a study of doctors in social health institutions, revealing that QWL is a major predictor of their work performance. The better the QWL perceived by doctors, the higher their work performance in providing health services (López-Martínez et al., 2021). Research on health workers in France added that participatory approaches in organizations can enhance the QWL, satisfaction of job, and perceptions of the quality of patient care (Lejeune et al., 2021). Overall, these studies confirm that improving health workers' QWL, whether through a more participatory organizational approach, better workload management, or other incentives, is critical to ensuring health workers' well-being and optimal quality of care for patients.

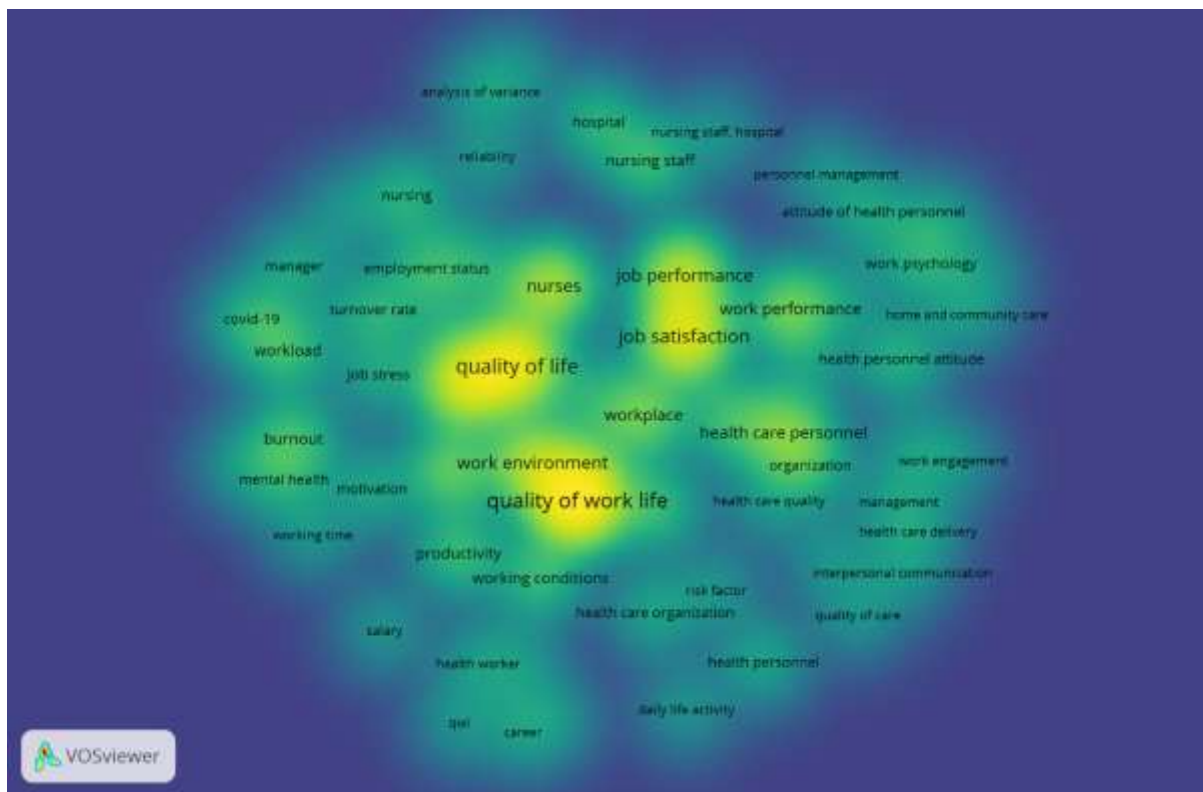
This trend peaked in 2022; findings from a study of nurses in Korea indicated that musculoskeletal disorders of the upper limbs are pervasive and reduce QWL through increased physical and psychosocial fatigue (Kim et al., 2022). Followed by a descriptive study of the interplay between QWL, job performance, and organizational loyalty in Saudi Arabia. In addition to demonstrating strong QWL, nurse managers exhibited high levels of job performance and demonstrated high loyalty toward their employees. Nevertheless, the job performance, organizational loyalty, and QWL of the staff nurses were subpar (Al-Dossary, 2022). In addition, there is a more in-depth study with a sample of 860 hospital nurses in various areas within Saudi Arabia regarding the QWL, which is also impacted by numerous demographic factors such as nationality, income, shift duration, and family conditions, a significant correlation to it. The nationality factor was characterized by the salary earned in the country of employment, which may hold different values in their home country, often perceived as more substantial, and regarded as a favorable opportunity, thereby impacting their quality of life to be high or moderate. It is noteworthy that the presence of family alongside nurses contributes positively to their QWL, as it underscores that non-Saudi healthcare professionals separated from their families experience greater anxiety and depression levels in comparison to their Saudi counterparts. This may result from enhanced social support and a more favorable work-life balance associated with cohabiting with family members. Concerning shift duration, nurses who work shorter hours per shift may find themselves with increased opportunities for family and social engagement, leading to higher satisfaction levels with their QWL. In terms of family conditions, having a dependent parent, child, or spouse is correlated with higher QWL scores, as a significant 61% of the nurses involved in the research who reported high QWL did not have a dependent person to care for, allowing them greater time for personal pursuits and social interactions (Al Mutair et al., 2022).

In 2023, a study involving 1,401 female nurses in China revealed that depressive symptoms significantly adversely affected QWL. Of those who participated, approximately 33.5% reported experiencing depressive symptoms, and after adjusting for propensity score matching, nurses with depressive symptoms had lower QWL scores than those without depression. The analysis revealed that depressive symptoms were the most influential factor in reducing the QWL, particularly in the dimension of workplace stress. The findings confirm the significance of creating mental health initiatives and psychological strategies to improve nurses' well-being and performance and support a sustainable nursing workforce (Li et al., 2023). Job and career satisfaction, however, did not seem to enhance over time; head nurses viewed job and career satisfaction more favorably, while staff nurses had a less positive perception.

Strategies aimed at enhancing the QWL will vary based on the nurse's role, unit placement, and work hours. Nurses who hold more favorable views on QWL tend to be those working in office and outpatient settings, as well as those with consistent work schedules. Conversely, nurses allocated to paid patient units and those experiencing fluctuating work schedules held unfavorable views. Within the cohort of individuals involved in the study, those employed in critical care units indicated experiencing the highest levels of stress. To enhance the QWL, it is essential to recruit an adequate number of nursing personnel, ensure the availability of sufficient hospital equipment and supplies, offer opportunities for professional development, guarantee equitable treatment given by nurse supervisors, and assess inefficient and cumbersome hospital procedures and protocols (Sy et al., 2023).

A comparative study in Awi Zone, Amhara, Ethiopia, involving 780 health workers (385 from private institutions and 395 from government institutions) revealed that the overall QWL satisfaction level reached 53.08%. Results showed that health workers in government institutions had a significantly higher level of satisfaction (63.54%) compared to health workers in private institutions (42.3%), resulting in a significant difference of 21.2%. In addition, government health workers reported better satisfaction across all dimensions of QWL, including work environment, organizational culture, peer relationships, development and training, facilities, rewards and compensation, job security and satisfaction with the job, resource adequacy, and job autonomy. The analysis also revealed that influencing factors significantly related to QWL include the type of health institution (health workers in government institutions are 2.27 times more inclined to experience satisfaction in comparison to those working

in the private sector), family size, availability of appropriate personal protective equipment, availability of eye protection, engineering controls in the workplace, and accessibility of alcohol-based hand rub. These findings suggest that private institutions' lack of resources and equipment contributes to lower levels of QWL satisfaction. Recent research (Karimi et al., 2024) states that emergency service staff in hospitals with challenging and stressful work environments in emergencies have impaired their communication skills. Training in communication skills has the potential to enhance professional performance and QWL by fostering engagement and the effective application of both these skills and technical expertise. Research has exhibited that training in communication skills for hospital emergency service personnel leads to notable enhancements in QWL and professional effectiveness. From the research stream mapping above, this study categorizes dominant or key density studies with inadequate or under-researched studies.



Heatmap Bibliometric Analysis of QWL and Performance

Research trends from 2015 to 2024 show increased attention to job satisfaction, work performance, job stress, burnout, and healthcare workers' mental health. Key themes emerging in this research include organizational factors such as leadership, working conditions, and work-life balance.

However, some themes show less explored research areas despite the high relevance of topics with QWL and performance, such as salary, daily life activity, motivation, career, and reliability in the context of health workers' work. These themes are essential to study, along with the emergence of notable transformations in the professional landscape for health workers due to the influence of digitalization and technological advances. In recent years, research has begun to highlight how adopting e-health systems, telemedicine, and automation in managing health workers affects their work quality. Therefore, it is essential to link fundamental issues such as well-being and work motivation with the ongoing digital transformation in looking at the challenges and opportunities facing healthcare workers today.

#### 4. DISCUSSION

These bibliometric results show that QWL is strongly correlated with various aspects of health worker performance, such as job satisfaction, retention, loyalty, and service quality.

First, the QWL Model (Walton, 1973) is relevant to the dimensions such as fair compensation, job safety, personal development, and social relationships found to be dominant in this research cluster. For instance, elements—work-life balance, training opportunities, and a supportive work environment—align with this study's findings. The study (Camargo et al., 2021) also confirmed that these dimensions are essential in improving health workers' perceived quality of work.

Second, the Job Demands-Resources (JD-R) Model from (Bakker & Demerouti, 2007) explains that high job demands—burnout, job stress, and workload pressure—found in large clusters in keyword co-occurrence maps can impair performance if not balanced with organizational support, training, or work flexibility. This study's



findings align with the model, where organizations that can provide adequate resources will maintain work balance and encourage better performance (Xu et al., 2021).

Third, Herzberg's Two-Factor Theory distinguishes between motivating aspects (i.e., career development and recognition) as well as hygiene aspects (i.e., conditions of work and salary) (Herzberg, 2018). In the network visualization and the findings of previous studies, it was found that a combination of these factors influences job satisfaction. Research (Al-Dossary, 2022) also supports that improvements in motivational and preventive aspects can increase QWL and improve nurses' performance output.

Therefore, the link between the empirical findings from the bibliometric results and the theoretical framework strengthens the argument that improving QWL is an effective strategy for enhancing health workers' performance in hospitals. This suggests that theory-based interventions such as strengthening motivational factors, reducing work pressure, and providing work support can be used to design more targeted managerial policies.

## 5. CONCLUSION

Analyzing the studies from 2015 to 2024, it was uncovered that QWL affects the performance of health workers in the hospital environment. Improved QWL, which includes work-life balance, workload management, safe and supportive work environment, and career development, is directly correlated with increased job satisfaction, loyalty, productivity, and service effectiveness. Conversely, low QWL was shown to exacerbate job stress, burnout, and exit intentions, negatively impacting performance.

This finding confirms that QWL improvement strategies are key measures that support the development of health professionals and contribute to improving the quality of health services by implementing effective HRM policies. This study has certain limitations in the limited scope of data collection, where the literature sources analyzed only came from the Scopus database. This is due to limitations in accessing other paid scientific databases, such as Web of Science, Springer, and ProQuest. Therefore, some relevant studies published in indexed journals other than Scopus could not be reached, so the bibliometric coverage and trend analysis in this study do not fully represent the entire global literature on QWL and its influence on the performance of health workers. Future research should include more sources to produce a more comprehensive picture.

On the basis of the findings, this investigation provides practical implications for future research and hospital policy development. The mapping can be used as a foundation in designing interventions to enhance the QWL that are appropriate to the local context and based on proven scientific evidence. Furthermore, this study provides theoretical implications by opening up opportunities for further studies related to the impact of digital transformation and leadership on the performance of health workers. Although technologies such as telemedicine, HER (electronic health records), and AI-based management systems are increasingly being adopted, their effect on health workers' well-being is still limited. Future research must examine the relationship between digitization and workload, stress, and job satisfaction to shape an adaptive work environment. In addition, leadership styles such as transformational and servant leadership are also relevant to enhancing performance and establishing a nurturing environment of work in the healthcare sector.

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