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Burnout Prediction Model Based on Workload, Organizational Support, and Work-Life Balance in Nurses in General Hospitals

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Abstract: *Burnout in nurses is an occupational health problem that can affect the welfare of health workers, professional performance, and the quality of hospital services. This study aims to analyze the relationship between workload, organizational support, and work-life balance as predictive factors for burnout in nurses in general hospitals. The study uses the Systematic Literature Review (SLR) method by searching articles through Scopus, PubMed, and Google Scholar based on the inclusion and exclusion criteria that have been set. A total of 18 relevant articles were analyzed using thematic and comparative synthesis. The results of the study showed that high workload was associated with increased burnout, while adequate organizational support and good work-life balance tended to lower the risk of burnout in nurses. These findings suggest that these three factors have an important role in explaining burnout in a multidimensional way. This research provides a conceptual basis for hospitals to develop burnout prevention strategies through workload management, strengthening organizational support, and more adaptive and sustainable work-life balance policies.*

Keyword: *Burnout; Workload; Organizational Support; Work-Life Balance; Nurse.*

INTRODUCTION

Burnout is an occupational health problem that is getting more and more attention in nursing services because it can affect the psychological condition of health workers as well as the quality of service to patients. Globally, the latest umbrella review shows the prevalence of emotional exhaustion in nurses at 33.45%, depersonalization at 25.00%, and low personal achievement at 33.49% (Getie et al., 2025). The impact is not limited to individuals. Li et al. (2024), through a meta-analysis of 85 studies covering 288,581 nurses from 32 countries, found that burnout was associated with a decline in patient safety culture, an increase in medication errors and unexpected events, as well as low patient satisfaction and quality of service. This condition places burnout as an occupational health problem that requires intervention not only at the individual level, but also at the level of the hospital organization.

A similar urgency is found in the Indonesian context. A multicenter study by Juanamasta et al. (2024) involving 900 nurses from 22 hospitals showed that more than half of the respondents experienced stress, 7.3% experienced symptoms of fatigue, and about 1% had a high likelihood of experiencing burnout overall. The study also identified job satisfaction, salary, motivation, incentives, competencies, and additional responsibilities as factors related to burnout. These findings show that nurse burnout in Indonesia cannot be

separated from the working conditions and organizational management. In public hospital practice, the demands of 24-hour services, a rotating work system, high patient needs, and clinical responsibilities put nurses at risk of experiencing an imbalance between job demands, available resources, and personal life.

The persistence of burnout among nurses is also supported by evidence showing that it is not merely a consequence of temporary crisis situations. Rizzo et al. (2023), through a systematic comparative review, found that nurse burnout rates had already reached substantial levels before the pandemic and remained a significant problem during the pandemic. Similarly, Feleke et al. (2022) reported that 56.5% of the nurses studied experienced high burnout, with work-related and organizational factors identified as important determinants. In addition, research among nursing personnel in Brazil demonstrated that organizational climate and job satisfaction were negatively correlated with emotional exhaustion and other dimensions of burnout (Almeida et al., 2024). These findings reinforce the understanding that burnout is a multidimensional occupational health problem shaped by the interaction between work characteristics, organizational conditions, and the resources available to nurses.

Theoretically, the relationship can be explained through the Job Demands–Resources (JD-R) Theory. This theory explains that the demands of work that require physical and psychological effort on a sustainable basis can trigger a process of declining health when not balanced by adequate work resources, while organizational resources can help workers cope with the demands and maintain work well-being (Bakker et al., 2023). In the context of nursing, workload can be placed as a job demand, while organizational support is a job resource. Work-life balance complements the framework by describing an individual's ability to manage the demands of work and personal life. Montenegro Méndez et al. (2025) show that job demands and resources are related to burnout in nurses, so JD-R is relevant as a foundation in understanding the interaction of various factors that shape burnout.

Within the JD-R framework, workload represents one of the major job demands in nursing because it encompasses not only the number of patients or clinical activities, but also physical, mental, emotional, documentation, patient-complexity, and time-related demands. Ferramosca et al. (2023) demonstrated that nursing workload is influenced by patient characteristics, service activities, staffing conditions, and organizational factors, indicating that workload is a multidimensional construct. Empirical findings further support its role as a major risk factor for burnout. Among 1,255 nurses from 34 public hospitals in South Korea, Li et al. (2024) found that increased workload contributed to increased burnout, which was subsequently associated with higher turnover intention and lower job satisfaction and organizational commitment. Feleke et al. (2022) also found that nurses who perceived excessive workload had approximately six times higher odds of experiencing burnout than those without excessive workload (AOR = 6,013; 95% CI: 3,016–11,989). Furthermore, Gündüz & Öztürk (2025) showed that a high mental workload has implications for nurses' ability to perform their work optimally.

In contrast to workload, organizational support can function as an important job resource that helps nurses manage occupational pressure. Perceived organizational support reflects the extent to which nurses perceive that hospitals value their contributions, care about their well-being, provide leadership support, ensure adequate work resources, and establish a safe and fair working environment. Abdulmohdi (2024) found a significant negative relationship between perceived organisational support and burnout among nurses, while organizational support and resilience were important factors in explaining variations in burnout. Tang et al. (2023), in a study involving 916 nurses, similarly found that organizational support was negatively correlated with burnout ($r = -0.31$; $p < 0.01$), with psychological capital mediating approximately 33.20% of the relationship between organizational support and burnout. The protective role of the organizational environment is

further supported by Almeida et al. (2024), who identified a negative relationship between organizational climate and burnout.

Work-life balance represents another important resource because nursing work commonly involves rotating schedules, night shifts, weekend work, and changes in working hours that can interfere with nurses' personal, family, social, and recovery needs. Al‑Hammouri & Rababah (2023) found that increased work stress among nurses was associated with increased work-family conflict, which can subsequently affect physical and psychological health, job satisfaction, and the performance of family roles. Recent evidence from Abuhammad et al. (2025), involving 500 nurses in Jordan, also showed that employment-related factors were associated with work-life balance, job satisfaction, and burnout. These findings suggest that work-life balance should not only be viewed as an individual time-management issue, but also as an outcome influenced by work patterns, working hours, professional responsibilities, and organizational policies.

Empirical evidence also shows the relationship between each factor and burnout. Galanis et al. (2025) found that increased workload was significantly associated with increased burnout in nurses after confounding factors were controlled. In contrast, Ren et al. (2024), in a study of 995 new nurses, found a negative correlation between perceived organizational support and burnout ($r = -0.624$), suggesting that perception of organizational support has the potential to be a protective resource against burnout. Meanwhile, a study by Gribben & Semple (2021) shows that workload, organizational culture, work patterns, and work-life balance are important aspects in understanding vulnerability to burnout in nurses. The findings show that burnout is formed through a combination of work, organization, and personal life factors.

Taken together, the literature demonstrates a relatively consistent pattern in which workload increases the consumption of nurses' physical and psychological resources, whereas organizational support provides external resources that can assist nurses in coping with such demands. At the same time, work-life balance reflects the ability to maintain adequate recovery and prevent occupational demands from excessively interfering with personal life. Therefore, the interaction of these three factors provides a comprehensive perspective for understanding burnout because it incorporates job demands, organizational resources, and personal recovery resources within a single conceptual framework.

However, previous studies still show focus fragmentation. Galanis et al. (2025) emphasized workload as a predictor of burnout, while Ren et al. (2024) specifically tested organizational support through psychological capital and work engagement mechanisms. Gribben & Semple (2021) discuss burnout and work-life balance, but are limited to the context of oncology nursing. Thus, there are still limited studies that systematically integrate workload as a demand factor, organizational support as a work resource, and work-life balance as a resource for personal balance in a single framework to explain burnout in general hospital nurses. This gap is important because these three factors have the potential to interact in determining nurses' ability to cope with work pressure, while the characteristics and context of previous research are relatively diverse.

Based on these gaps, this study aims to systematically analyze the relationship between workload, organizational support, and work-life balance with burnout in general hospital nurses and to develop a conceptual predictive framework based on the consistency of previous research findings through the Systematic Literature Review (SLR) method. Theoretically, this study is expected to expand the application of JD-R Theory by integrating work demand factors, organizational resources, and work-life balance in explaining nurse burnout. Practically, the results of the study can provide an evidence-based basis for hospital management in developing burnout prevention strategies through proportional distribution of workload, strengthening organizational and leadership support, and work policies that support

work-life balance. This approach is relevant because controlling burnout at the system level has the potential to support the welfare of nurses as well as the quality and safety of services.

METHOD

Types of Research

This study uses the Systematic Literature Review (SLR) method with a qualitative synthesis approach. SLR is used to identify, select, evaluate, and synthesize empirical evidence regarding the association of workload, organizational support, and work-life balance with burnout in general hospital nurses. The selection of this method is in accordance with the research objectives, which are to build a conceptual predictive model based on the consistency of previous research findings, rather than producing a statistical prediction model at the individual level.

The study reporting process refers to the 2020 Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) to increase the transparency of the process of identifying, screening, assessing eligibility, and inclusion of articles (Page et al., 2021). The use of PRISMA 2020 also supports the traceability of the literature selection process so that the results of the study can be reported systematically and can be replicated.

Population and Sample

The research population includes scientific articles relevant to burnout in nurses, particularly those that discuss workload, organizational support, and work-life balance in the context of hospital services. The search was conducted through Scopus, PubMed, and Google Scholar. The identification process resulted in 1,247 articles, consisting of 512 articles from Scopus, 341 articles from PubMed, and 394 articles from Google Scholar. After 289 duplicate articles were removed, a total of 958 articles underwent title and abstract filtering. A total of 842 articles were published at that stage, so 116 articles were extended to the full text search stage. A total of 23 articles were not successfully obtained and 93 articles were assessed as feasibility. After 75 articles were excluded based on the exclusion criteria, 18 articles were obtained that were included in the final synthesis.

Article selection is carried out based on the eligibility criteria that have been set, not through probability sampling. Thus, a research analysis unit is an article that meets the inclusion and exclusion criteria and is relevant to the research question.

Study Eligibility Criteria

Inclusion criteria include articles published in January 2021–October 2025, in English or Indonesian, available in full text, involving nurses in a hospital context, and discussing burnout and at least one of the main variables, namely workload, organizational support, or work-life balance. Primary research and synthesis of evidence that is directly relevant to the purpose of the study can be considered. Duplicate articles, articles outside the publication period, population or context that are irrelevant, as well as articles that do not contain the main variable are excluded. The last search was carried out on October 31, 2025.

Research Instruments

Because the research uses SLR, the data collection instrument is not in the form of questionnaires, interviews, or direct observations. The research instruments are in the form of literature search protocols, inclusion-exclusion criteria, and data extraction sheets used to organize information from articles that meet the criteria.

The tracing strategy was developed based on the main constructs of the research, namely burnout, workload, organizational support, work-life balance, nurses, and general hospital. The preparation and reporting of search strategies refers to the PRISMA-S principle,

which emphasizes the transparency of information sources, search terms, and the process of searching literature so that it can be replicated (Rethlefsen et al., 2021).

The extracted information was directed to the characteristics of the study, the characteristics of the nurse population, the variables studied, and the direction and outcome of the relationship between workload, organizational support, work-life balance, and burnout.

Psychometric validity and reliability tests such as Cronbach's alpha were not applied because the research did not develop or use primary measurement instruments. Methodological validity is maintained through the consistency of the article selection criteria, the transparency of the selection process, and the suitability between the extracted data and the research objectives.

Data Collection Procedure

The research procedure is carried out systematically through several stages. First, the researcher formulated a study focus based on research gaps that showed that previous research still tended to discuss workload, organizational support, and work-life balance separately. Therefore, this study integrates these three factors in a single framework to explain burnout in general hospital nurses.

Second, the conceptual framework of the research is prepared based on the Job Demands–Resources (JD-R) Theory. Workload is placed as job demand, while organizational support is placed as a job resource. Work-life balance is positioned as a factor that supports the balance and recovery of nurses' personal resources.

Third, article searches were conducted through Scopus, PubMed, and Google Scholar using keywords that represent research variables.

Fourth, the articles found were selected based on inclusion and exclusion criteria. The selection process is carried out through the stages of identification, screening, feasibility assessment, and determination of final articles according to the principles of PRISMA 2020 (Page et al., 2021).

Fifth, articles that meet the criteria are extracted to obtain relevant information regarding the relationship between research variables.

Sixth, a total of 18 relevant articles were analyzed using thematic and comparative synthesis to identify consistent patterns of relationships between workload, organizational support, work-life balance, and burnout.

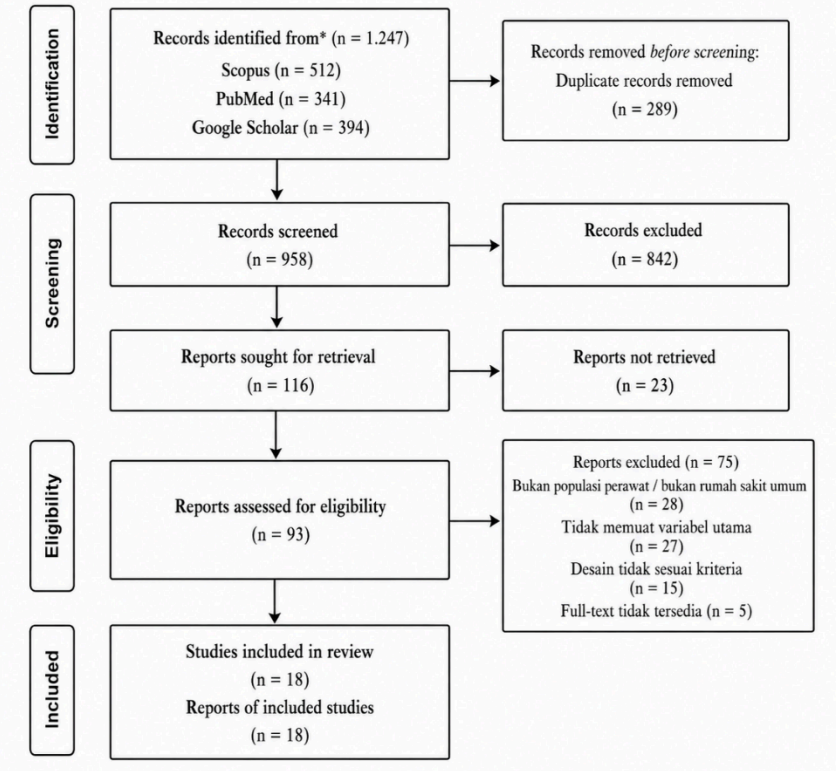

Figure 1. PRISMA 2020

Data Analysis Techniques

The data were analyzed using thematic and comparative synthesis, according to the methods that have been stated in the research abstract.

The thematic synthesis was carried out by grouping the research results into four main themes, namely: (1) burnout as an occupational health problem in nurses; (2) workload as a risk factor for burnout; (3) organizational support as a protective factor; and (4) work-life balance as a factor that supports the balance and recovery of nurse resources. The grouping is consistent with the structure of the literature review of the research.

Furthermore, comparative synthesis was used to compare the direction and consistency of the relationships between variables in the selected studies. The synthesis results showed a pattern that higher workloads were associated with increased burnout, while better organizational support and better work-life balance were associated with lower burnout tendencies.

Based on this pattern, the results of the analysis were used to develop a conceptual predictive model that placed workload as a risk factor as well as organizational support and work-life balance as protective factors against burnout. This model is not intended as a statistical prediction model that produces the probability of burnout in individuals, but rather as a conceptual integration based on the consistency of empirical evidence from previous research.

RESULTS AND DISCUSSION

Results

Literature Selection Results

Based on the PRISMA 2020 selection flow, the identification process resulted in 1,247 articles, which came from Scopus as many as 512 articles, PubMed as many as 341 articles, and Google Scholar as many as 394 articles. After 289 duplicate articles were removed, a total of 958 articles entered the title and abstract screening stage. At that stage, 842 articles were issued, leaving 116 articles for *the full text search process*. A total of 23 articles were not

successfully obtained, so 93 articles were assessed at the *eligibility stage*. Furthermore, 75 articles were excluded because they did not meet the criteria, i.e. they were not a nurse population or not a general hospital context (n = 28), did not contain the main variables of the study (n = 27), the research design did not meet the criteria (n = 15), and *the full text* was not available (n = 5). Thus, 18 articles met the final criteria and were included in thematic and comparative synthesis. The final number is consistent with the abstract and methodology that assigns 18 articles as units of analysis. Mathematically, all the stages in the diagram show consistency: 1,247 − 289 = 958 articles; 958 − 842 = 116 articles; 116 − 23 = 93 articles; and 93 − 75 = 18 final articles.

General Characteristics of Study Findings

The results of the synthesis show that research on nursing burnout covers diverse geographical and organizational contexts. The studies used in the manuscript included nurses from Indonesia, South Korea, Brazil, Jordan, as well as a broader international context. Sample sizes also vary, ranging from studies on hundreds of nurses to meta-analyses integrating hundreds of thousands of nurses. These variations show that the relationship between burnout and work, organization, and personal life factors has been observed in various contexts of nursing services.

Thethematically, the results of the research can be grouped into four main findings, namely burnout as an occupational health problem, workload as a risk factor, organizational support as a protective factor, and work-life balance as a protective factor related to the recovery of nurse resources. The classification is in accordance with the thematic synthesis technique established in the research methodology.

Burnout as an Occupational Health Problem in Nurses

The results of the synthesis show that burnout in nurses is a phenomenon that is found consistently in various health service contexts. The umbrella review of Getie et al. (2025) showed the prevalence of emotional exhaustion at 33.45%, depersonalization at 25.00%, and low personal achievement at 33.49%. The findings show that the manifestations of burnout are not only present in one dimension, but include several psychological and professional components.

In the Indonesian context, Juanamasta et al. (2024) involved 900 nurses from 22 hospitals. More than half of respondents reported experiencing stress, 7.3% experiencing symptoms of fatigue, and about 1% having a high likelihood of experiencing burnout overall. Factors related to burnout include job satisfaction, salary, motivation, incentives, competencies, and additional responsibilities.

Feleke et al. (2022) also found that 56.5% of nurses in the studied population experienced high burnout. Meanwhile, Rizzo et al. (2023) showed through *a systematic comparative review* that burnout had been found at a substantial level before the pandemic and remained a problem during the pandemic period.

In addition to prevalence, the impact of burnout has also been identified on service output. A meta-analysis by Li et al. (2024), which included 85 studies, 288,581 nurses, and 32 countries, showed that burnout was associated with a decreased patient safety culture, increased medication errors and unexpected events, as well as low patient satisfaction and quality of service.

Workload as a Risk Factor for Burnout

A synthesis of studies that discuss workload shows a relatively consistent relationship direction, namely increased workload related to increased burnout in nurses. The workload studied is not limited to the number of activities or patients, but also includes physical, mental, emotional, documentation, patient complexity, time pressure, staff conditions, and

organizational factors. Ivziku et al. (2024) show that nursing workload is a multidimensional construct influenced by patient characteristics, service activities, labor conditions, and organizational factors.

Li et al. (2024), through a study of 1,255 nurses from 34 public hospitals in South Korea, found that increased workload contributes to increased burnout. In the study, burnout was also related to increased *turnover intention* and decreased job satisfaction and organizational commitment.

A more quantitatively robust finding was reported by Feleke et al. (2022). Nurses who perceived an overworked workload had an approximately six-fold higher chance of experiencing burnout than nurses without an overworked workload (AOR = 6,013; 95% CI: 3,016–11,989). Staff shortages were also found to be related to burnout.

Galanis et al. (2025) showed that increased workload remained significantly associated with increased burnout after confounding factors were controlled. Meanwhile, Pourteimour et al. (2021) showed that high mental workload has implications for nurses' ability to carry out their jobs optimally.

Thus, in the overall synthesis, the direction of the relationship between workload and burnout is positive, namely the higher workload followed by the higher burnout tendency.

Organizational Support as a Protective Factor against Burnout

In contrast to workload, the results of studies on organizational support show the direction of a negative relationship with burnout. This means that higher levels of organizational support tend to be found along with lower levels of burnout.

Ren et al. (2024), in 995 new nurses, found a relatively strong negative correlation between *perceived organizational support* and burnout ($r = -0.624$). The findings suggest that increased perceptions of organizational support run in the opposite direction to burnout rates.

Tang et al. (2023), through a study of 916 nurses, also found a negative correlation between organizational support and burnout ($r = -0.31$; $p < 0.01$). The study further found that *psychological capital* mediated about 33.20% of the relationship between organizational support and burnout.

Abdulmohdi (2024) reported a significant negative relationship between *perceived organisational support* and burnout. In addition to organizational support, resilience was found to be a contributing factor to the variation in burnout. The findings of Almeida et al. (2024) show a one-way pattern, namely that organizational climate and job satisfaction are negatively correlated with emotional fatigue and other burnout dimensions in nursing in Brazil.

Overall, the synthesis results suggest that organizational support is a consistent factor associated with lower burnout, although the magnitude of the association differs between studies.

Work-Life Balance dan Burnout

Findings on the theme *of work-life balance* show that work-life balance is related to the psychological condition and burnout of nurses. Karakurt et al. (2023) found that increased work stress is related to increased *work-family conflict*. These conditions are further related to physical and psychological health, job satisfaction, and the implementation of family roles.

Abuhammad et al. (2025), in a study of 500 nurses in Jordan, found that employment factors are related to *work-life balance*, job satisfaction, and burnout. Work-related burnout is still found to be a problem in this population.

Gribben & Semple (2021) also identified workload, organizational culture, work patterns, and work-life balance as aspects related to burnout susceptibility in the context of oncology nursing.

Compared to the evidence on workload and organizational support, studies that directly report on the measure of the quantitative relationship between *work-life balance* and burnout in this paper are more limited. However, all available evidence points consistently to the fact that work-life imbalances are associated with less favourable working and psychological conditions, while better work-life balance tends to be associated with a lower risk of burnout.

Integration of Workload Findings, Organizational Support, and Work-Life Balance

The results of the comparative synthesis show three main patterns. First, workload shows a positive relationship to burnout. Second, organizational support shows the direction of a negative relationship to burnout. Third, work-life balance shows a protective pattern, i.e. a better work-life balance related to lower burnout conditions. The pattern is consistent with the main results that have been stated in the research abstract.

Based on the consistency of the direction of the relationship, the results of the SLR form the following conceptual predictive model:

High workload → increased burnout prone
High organizational support → decreased burnout tendencies
Work-life balance is good → a tendency to decrease burnout

The model is a conceptual predictive model based on evidence synthesis, not an individual statistical prediction model. Thus, the study did not produce a combined regression coefficient, an individual burnout probability, or a mathematical prediction equation. This position is in accordance with the objectives and research methods that use thematic and comparative synthesis.

Variation in Findings Between Studies

Although the direction of the main relationship is relatively consistent, there are variations in the form and strength of the evidence between studies. On the relationship between organizational support and burnout, for example, Ren et al. (2024) reported a correlation of $r = -0.624$, while Tang et al. (2023) reported a correlation of $r = -0.31$. Both results have the same direction, but show the strength of different relationships.

On the workload variable, Feleke et al. (2022) reported the magnitude of the association in the form of *adjusted odds ratio* (AOR = 6.013), while Li et al. (2024) and Galanis et al. (2025) reported the direction of the relationship between workload and burnout without the same effect measure in the available literature.

Variations are also seen in the characteristics of the population and the research context, such as new nurses, general hospital nurses, oncology nursing, and nurse populations from different countries. Therefore, the results of this study are presented based on the consistency of the relationship direction, not on the basis of statistical association of effect measures, in accordance with the use of thematic and comparative synthesis in the methodology.

Table 1. Extraction of Study Data Used in Synthesis

No.	Researcher (Year)	Samples/ Context	Study Design	Variable / Focus	Key Results
1	Getie et al. (2025)	Nurse	*Umbrella review*	Burnout	The prevalence of *emotional exhaustion* was 33.45%, depersonalization was 25.00%, and low personal achievement was 33.49%.

2	Li et al. (2024)	288,581 nurses; 85 studies; 32 countries	Meta-analysis	Burnout and service quality	Burnout is associated with a low patient safety culture, increased medication errors and unexpected events, and decreased patient satisfaction and quality of service.
3	Juanamasta et al. (2024)	900 nurses from 22 hospitals in Indonesia	Study multicenter	Burnout and work factors	More than half of nurses experienced stress, 7.3% experienced symptoms of fatigue, and about 1% had a high likelihood of experiencing burnout overall.
4	Wójcik et al. (2022)	Nurse	Not detailed in the manuscript	*Job demands*, *job resources*, burnout	Job demands and resources are related to burnout in nurses.
5	Galanis et al. (2025)	Nurse	Not detailed in the manuscript	Workload and burnout	Increased workload is significantly associated with increased burnout after confounding factors are controlled.
6	Ren et al. (2024)	995 new nurses	Not detailed in the manuscript	Organizational support and burnout	*Perceived organizational support* was negatively correlated with burnout (r = −0.624).
7	Gribben & Semple (2021)	Nurses in the context of oncology nursing	Study	Burnout, workload, organizational culture, work patterns, *work-life balance*	Workload, organizational culture, work patterns, and work-life balance are factors related to burnout susceptibility.
8	Rizzo et al. (2023)	Nurse	*Systematic comparative review*	Burnout	Nurse burnout rates had been substantial before the pandemic and remained a problem during the pandemic.
9	Feleke et al. (2022)	Nurse	Not detailed in the manuscript	Workload and burnout	As many as 56.5% of nurses experience high burnout; excessive workload increases the chance of burnout (AOR = 6,013; 95% CI: 3,016–11,989).
10	Almeida et al. (2024)	Nursing in Brazil	Not detailed in the manuscript	Organizational climate, job satisfacti	Organizational climate and job satisfaction are negatively correlated with emotional fatigue and other dimensions of burnout.

				on, burnout	
11	Ivziku et al. (2024)	Nurse	Not detailed in the manuscript	Nursing workload	The workload is influenced by patient characteristics, service activities, staff conditions, and organizational factors.
12	Lee & Lee (2024)	1,255 nurses from 34 public hospitals in South Korea	Not detailed in the manuscript	Workload and burnout	Higher workload is associated with increased burnout; burnout is also associated with increased *turnover intention* as well as decreased job satisfaction and organizational commitment.
13	Pourteimour et al. (2021)	Nurse	Not detailed in the manuscript	Mental workload	High mental workload has implications for nurses' ability to carry out their work optimally.
14	Abdulmohdi (2024)	Nurse	Not detailed in the manuscript	Organizational support, resilience, burnout	*Perceived organisational support* is significantly negatively associated with burnout; organisational support and resilience contribute to variations in burnout.
15	Tang et al. (2023)	916 nurses	Not detailed in the manuscript	Organizational support, *psychological capital*, burnout	Organizational support was negatively correlated with burnout ($r = -0.31$; $p < 0.01$); *Psychological capital* mediated around 33.20% of the relationship.
16	Karakurt et al. (2023)	Nurse	Not detailed in the manuscript	Work stress and *work-family conflict*	Increased work stress is related to increased *work-family conflict* as well as physical and psychological conditions, job satisfaction, and the implementation of family roles.
17	Abuhammad et al. (2025)	500 nurses in Jordan	Not detailed in the manuscript	*Work-life balance*, job satisfaction, burnout	Occupational factors are related to *work-life balance*, job satisfaction, and burnout in nurses.
18	Demerouti & Bakker (2023)	Context of work	Theoretical studies of JD-R	*Job demands* dan *job resources*	The ongoing demands of work can trigger a decline in health when not balanced by adequate employment resources.

Note: *Study design is only listed if explicitly stated in the manuscript.*

Summary of Key Findings

Overall, the synthesis of the 18 articles produced a consistent pattern that workload is a factor related to increased burnout, while organizational support and work-life balance point to the direction of a protective relationship against burnout. These results support the establishment of a conceptual predictive model that integrates job demands, organizational resources, and personal life balance in explaining burnout in general hospital nurses.

These results are research findings, so they do not include theoretical interpretations, managerial implications, argumentative comparisons with previous research, and intervention recommendations. These elements are placed in the Discussion section.

Discussion

The results of the Systematic Literature Review show that burnout in nurses is a multidimensional phenomenon that cannot be explained by a single factor. A synthesis of 18 articles showed a relatively consistent pattern that high workload was associated with increased burnout, while adequate organizational support and good work-life balance were associated with lower burnout tendencies. These findings are in line with the Job Demands–Resources (JD-R) Theory which explains that high and sustainable job demands can drain workers' physical and psychological resources, while the availability of job resources can reduce the negative impact of these demands (Demerouti & Bakker, 2023). Thus, burnout in nurses is more accurately understood as the result of an imbalance between job demands and available organizational and personal resources.

The magnitude of the burnout problem can be seen from the findings of (Getie et al., 2025), which reported the prevalence of emotional exhaustion at 33.45%, depersonalization at 25.00%, and low personal achievement at 33.49%. In the Indonesian context, Juanamasta et al. (2024) also showed that more than half of nurses experienced stress, 7.3% experienced symptoms of fatigue, and about 1% had a high likelihood of experiencing burnout overall. The difference in burnout rates between studies can be influenced by the characteristics of respondents, work environment, measurement instruments, and differences in health service organizations. However, the consistency of the findings of burnout in various contexts shows that the problem is not only an individual problem, but also related to structural conditions in the work environment. This is all the more important because Li et al. (2024) show that nurse burnout is associated with a lower culture of patient safety, increased medication errors and unexpected events, as well as decreased patient satisfaction and quality of service.

Workload is the most consistent factor associated with increased burnout. In the JD-R framework, workload functions as a job demand because it requires physical, mental, and emotional energy on an ongoing basis. Lee & Lee (2024) found that higher workloads were associated with increased burnout in 1,255 nurses from 34 public hospitals in South Korea. Feleke et al. (2022) also showed that nurses who experienced an excessive workload had a approximately six times higher chance of experiencing burnout than nurses who did not experience an excessive workload (AOR = 6,013; 95% CI: 3,016–11,989). Galanis et al. (2025) further showed that the relationship between workload and burnout remained significant after confounding factors were controlled. These findings reinforce the argument that burnout control is not sufficiently geared towards individual adaptability, but also needs to consider organizational aspects such as staffing adequacy, task distribution, documentation burden, patient complexity, and recovery time.

In contrast to workloads, organizational support exhibits a protective function against burnout. Ren et al. (2024) found a negative correlation between perceived organizational support and burnout in 995 new nurses ($r = -0.624$), while Tang et al. (2023) found a negative association in 916 nurses ($r = -0.31$; $p < 0.01$). Tang et al. also showed that psychological capital mediated about 33.20% of the relationship between organizational support and burnout. Differences in the strength of these relationships can be influenced by population

characteristics, work experience, clinical environment, and the form of support received. New nurses, for example, are in a professional transition phase and are likely to rely more on leadership support, training, feedback, and a conducive work environment. Although the strength of the relationship differs, the direction of the findings between studies is relatively consistent, so organizational support can be placed as a job resource that helps nurses cope with work pressure and maintain psychological resources.

The results of the synthesis also show that work-life balance has a protective role against burnout. In the nursing profession, the rotational work system, night work, 24-hour service demands, and schedule changes can reduce the chances of recovery and increase conflicts between work and personal life. Karakurt et al. (2023) found that increased work stress was related to increased work-family conflict, while Abuhammad et al. (2025) showed that work factors are related to work-life balance, job satisfaction, and burnout in nurses. The findings show that work-life balance is not only related to the number of hours worked, but also to control over schedules, recovery opportunities, family responsibilities, work flexibility, and organizational policies. Therefore, work-life balance can be understood as a recovery resource that helps nurses maintain physical and psychological capacity when facing the demands of service.

The integration of these three factors expands the application of JD-R in the context of general hospital nursing. Workload represents energy-draining demands, organizational support represents external resources that help meet demands, while work-life balance reflects the ability to maintain resources and recover outside of the work environment. Based on this pattern, the higher the workload, the greater the tendency to burnout, while the stronger the organizational support and the better the work-life balance, the lower the tendency to burnout. The contribution of this research lies in the integration of these three factors in one conceptual predictive model, different from previous studies that tended to test each factor separately. However, this model is not intended as an individual statistical prediction model because the SLR performed uses thematic and comparative synthesis and does not produce a combined regression coefficient or burnout probability equation.

The variation in findings between studies suggests that the relationship between work factors and burnout does not always have the same strength. For example, the correlation of organizational support and burnout in Ren et al. (2024) was stronger than in Tang et al. (2023), while research on workload used different association measures, such as correlation, regression, and adjusted odds ratio. These differences may be related to variations in sample characteristics, service units, countries, measurement instruments, and research designs. Therefore, the results of this study emphasize more on the consistency of the direction of the relationship than comparing the magnitude of the effect directly. This approach is in accordance with the research design that uses qualitative synthesis and does not conduct meta-analysis.

This research has several limitations. Variations in design, population characteristics, burnout measurement instruments, and hospital contexts may lead to heterogeneity of findings. In addition, some of the studies synthesized used a cross-sectional design, so the relationships found could not show a strong cause-and-effect relationship. The use of thematic and comparative synthesis also led to this study not producing a measure of the combined effects of workload, organizational support, and work-life balance. Therefore, further research is recommended using longitudinal or multicenter designs to test the temporal relationships between variables as well as develop an empirical model that tests all three factors simultaneously. The next SLR also needs to conduct a quality appraisal based on the design of each study, separate primary research from secondary studies to avoid overlapping evidence, and consider meta-analyses where data heterogeneity is possible.

Overall, the research findings reinforce the view that the prevention of burnout in nurses needs to be directed at a multidimensional organizational approach. Reducing

workload without adequate organizational support is not necessarily enough, nor is increasing organizational support without providing opportunities for recovery and work-life balance. The integration of workload management, strengthening organizational resources, and policies that support work-life balance provides a more comprehensive framework to understand and control burnout in general hospital nurses. These findings also expand the application of JD-R by placing organizational resources and personal life balance as factors that together can compensate for the high demands of work in nursing services.

CONCLUSION AND SUGGESTIONS

Conclusion

Based on the findings of this study, the following conclusions can be drawn:

1. Burnout in nurses is influenced by job demands, organizational resources, and work-life balance; high workload increases burnout, while support and balance reduce it (JD-R Theory).
2. The model is conceptual, showing consistent relationships between variables, not statistical prediction; integration gives a more complete understanding of burnout.
3. Hospitals should manage workload, ensure adequate staffing, strengthen organizational support, and promote work-life balance policies.
4. Future research should use longitudinal or multicenter designs and consider quality appraisal or meta-analysis for stronger evidence.Self-expression value through customer engagement does not have a significant effect on customer loyalty. This finding indicates that customer loyalty is formed more directly through the congruence between customer identity and café image than through the process of customer engagement.

Limitations

This study is limited by heterogeneity in study designs, populations, measurement instruments, and hospital contexts. The use of thematic and comparative synthesis also prevents the estimation of pooled effect sizes and causal relationships.

Recommendation

Future studies are recommended to use longitudinal or multicenter designs, conduct appropriate quality appraisal, and consider meta-analysis when data characteristics allow. Hospitals should also strengthen workload management, organizational support, staffing adequacy, and work-life balance policies.

Author Contribution

The author contributed to the conceptualization, literature search, methodology, data analysis, interpretation of findings, manuscript preparation, and final revision of the study.

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