



## SUBJECTIVE WORKLOAD ASSESSMENT AMONG NURSES AND ITS RELATIONSHIP WITH WORK QUALITY SATISFACTION: A SCOPING REVIEW

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### ABSTRACT

Subjective Workload Assessment among nurses is a crucial aspect in evaluating the well-being of healthcare professionals and the quality of care provided. High workload levels have been associated with increased stress, burnout, and decreased job satisfaction, ultimately affecting the quality of healthcare services. Additionally, organizational factors such as uneven workload distribution, inflexible work schedules, and limited social support further exacerbate the negative effects of excessive workload. Therefore, a comprehensive review is necessary to understand how subjective workload influences job satisfaction and how social support-based interventions can mitigate its adverse effects. This scoping review aims to identify and analyze the relationship between subjective workload assessment, social support, and job satisfaction among nurses in non-intensive care units. A systematic literature search was conducted across PubMed, Scopus, Web of Science, and the Cochrane Library, with a publication date range from 2020 to 2024. Article selection was based on the Population, Concept, Context (PCC) framework developed by the Joanna Briggs Institute (JBI). Out of 228 identified articles, 45 passed the initial screening phase. Following a critical appraisal using the Joanna Briggs Institute Critical Appraisal Tools, 12 studies met the final inclusion criteria. The reviewed studies employed quantitative, qualitative, and mixed-methods approaches, investigating subjective workload in nurses and its relationship with job satisfaction and social support. Literature analysis indicates that high subjective workload is associated with decreased job satisfaction, increased stress, burnout, and negative impacts on nurses' mental health. Studies further reveal that peer support is more effective in alleviating workload-related stress compared to support from supervisors or management. Additionally, a supportive work environment and flexible organizational policies contribute to higher job satisfaction despite high workload levels. However, challenges persist in implementing workload evaluation strategies, particularly due to the lack of standardized assessment frameworks and the limited availability of longitudinal research examining the long-term effects of subjective workload on nurses' well-being. High subjective workload has significant negative effects on nurses' mental well-being and job satisfaction. However, peer support, flexible organizational policies, and evidence-based interventions can mitigate the adverse effects of excessive workload. Therefore, further research is needed to explore more effective intervention strategies for improving nurses' well-being. This review also recommends the development of inclusive policies and standardized workload assessment frameworks to ensure that healthcare professionals can deliver optimal care in a healthier and more supportive work environment.

Keywords: coal workers; pulmonary function impairment; occupational health; respiratory disorders; workplace safety

### How to cite (in APA style)

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## **INTRODUCTION**

Nurses play a crucial role in providing medical services, particularly in maintaining the quality of patient care. However, this profession often faces high workloads, both physically and psychologically, which can affect service quality and job satisfaction (Aiken et al., 2018). Subjective Workload Assessment serves as an essential indicator in evaluating the pressure experienced by nurses during their duties. Excessive workloads without effective management can lead to burnout, work stress, and a decline in the quality of healthcare services provided (Carayon & Gurses, 2019). Subjective workload in the nursing context can be influenced by various factors, including the number of patients, task complexity, and work environment conditions. Nurses in non-intensive care units often encounter challenges in managing their workload, given their responsibilities that extend beyond clinical aspects to include administrative and emotional duties (Bakker et al., 2019). These factors contribute to their job satisfaction level and ultimately impact the quality of care provided to patients (Bakker et al., 2019). Therefore, understanding how nurses perceive their workload and how it affects their work quality satisfaction is crucial in enhancing healthcare system effectiveness.

One factor that may moderate the relationship between subjective workload and work quality satisfaction is social support. Social support from colleagues, supervisors, and a positive work environment can help mitigate the negative effects of high workloads and enhance nurses' psychological well-being (Halbesleben & Rathert, 2008). Previous studies indicate that adequate social support can increase work motivation, reduce stress, and improve the quality of care provided (Bakker et al., 2019). Thus, a deeper understanding of the role of social support in relation to subjective workload and job satisfaction is essential. Various studies have examined nurses' workloads and their impact on well-being and work quality. However, discrepancies exist in the research approaches used, including workload measurement instruments, analytical methods, and areas of focus (Gurses & Carayon, 2007). Some studies emphasize physical workload, while others focus more on psychosocial and workplace environment factors (Demerouti et al., 2001). These differences make it challenging to compare studies and identify consistent findings. Moreover, research on the moderating role of social support in this relationship remains limited and lacks a comprehensive overview of the factors contributing to work quality satisfaction among nurses in non-intensive care units.

A scoping review is an appropriate method for mapping the literature on the relationship between subjective workload assessment, social support, and work quality satisfaction among nurses. This approach facilitates the identification and analysis of published findings, provides insights into research trends, and highlights existing research gaps (Peters et al., 2015). Using this method, this study aims to assess the extent to which evidence-based research has explored the impact of subjective workload on nurses' work quality satisfaction and how social support plays a role in this relationship. This review will utilize relevant literature from academic databases such as PubMed, Scopus, Web of Science, and the Cochrane Library to ensure a broad and in-depth coverage (Arksey & O'Malley, 2005). The literature analyzed includes quantitative and qualitative studies discussing the subjective workload of nurses and its impact on their work quality satisfaction. Additionally, this study will highlight various instruments used to measure subjective workload and job satisfaction and explore how social support-based interventions can mitigate the adverse effects of high workload. Thus, the primary objective of this study is to map the available scientific evidence on the relationship between subjective workload assessment, social support, and work quality satisfaction among nurses. This review will provide in-depth insights into the factors contributing to the enhancement or decline of nurses' job satisfaction and offer recommendations for healthcare administrators to develop more effective strategies for improving nurses' well-being and healthcare service quality (Levac et al., 2010). The research

question in this study is: *How is the relationship between subjective workload assessment, social support, and work quality satisfaction among nurses based on available scientific literature?*

**METHOD**

This scoping review was conducted following the updated methodological guidelines from the Joanna Briggs Institute (JBI) (Peters et al., 2020) and the PRISMA-ScR framework (*Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews*) (Tricco et al., 2018). This approach aims to ensure that the literature review process is systematic, transparent, and credible. The first step in this study involved defining the research objectives and questions using the *Population, Concept, Context* (PCC) framework, which was designed to clarify the focus and scope of the review (Peters et al., 2020). Subsequently, the research protocol was developed, incorporating inclusion and exclusion criteria, literature search strategies, and data extraction methods to ensure transparency and research replicability. This protocol is also recommended for registration on platforms such as the Open Science Framework (OSF) or JBI Evidence Synthesis

The next stage involved conducting a comprehensive literature search across various academic databases and gray literature sources. This process included collaboration with expert librarians to optimize search strategies and ensure the systematic documentation of each stage (Tricco et al., 2018). Article selection was conducted in multiple phases, beginning with title and abstract screening, followed by full-text evaluation. The PRISMA-ScR flow diagram was utilized to ensure transparency and accountability in the study selection process (Tricco et al., 2018). Relevant data were then extracted and analyzed descriptively to map key findings, research trends, and gaps in the existing literature (Peters et al., 2020). This entire process was designed to produce a systematic, credible, and comprehensive scoping review of the relevant literature.

**Inclusion Criteria**

The article search method applies the Population, Concept, Context (PCC) framework as follows:

Table 1.  
PCC Framework

Component	Description
Population	Nurses working in non-intensive care units
Concept	Subjective Workload Assessment and its impact on Work Quality Satisfaction, with Social Support as a moderating factor
Context	Various healthcare settings outside intensive care units, including general wards, rehabilitation units, and outpatient care services

Framework is applied to define the scope of the review and ensure that the selected studies are relevant to the research objectives (Peters et al., 2020).

**Types of Sources Used**

This scoping review will incorporate various sources of evidence to provide a comprehensive review of *Subjective Workload Assessment* among nurses, with *Social Support* as a moderating factor for *Work Quality Satisfaction* in non-intensive care units. Studies with experimental and quasi-experimental designs, including randomized controlled trials (RCTs), non-randomized trials, pre-post studies, and interrupted time-series studies, will be included (Peters et al., 2020). Additionally, analytical observational studies, such as prospective and retrospective cohort studies, case-control studies, and analytical cross-sectional studies, will be considered in this review (Tricco et al., 2018). Furthermore, descriptive observational

studies, including case series and individual case reports, will also be included to provide additional context relevant to the research. Moreover, qualitative studies utilizing phenomenology, grounded theory, ethnography, qualitative description, action research, and feminist research approaches will be incorporated to capture diverse perspectives and experiences of nurses working in non-intensive care units (Peters et al., 2020). By integrating various research designs and sources of evidence, this scoping review aims to map the existing body of knowledge comprehensively, identify research gaps, and provide in-depth insights into the factors influencing subjective workload assessment among nurses in non-intensive care units.

### **Eligibility Criteria**

The eligibility criteria for this literature review have been rigorously defined to ensure the relevance and quality of the articles analyzed. Studies included in the review must meet the following criteria:

1. Empirical research that directly reports findings on Subjective Workload Assessment and the moderating role of Social Support in relation to Work Quality Satisfaction among nurses.
2. Studies conducted on nurses working in non-intensive care units, as general medical-surgical wards, rehabilitation units, or outpatient care services (Tricco et al., 2018).
3. Research designs including quantitative, qualitative, or mixed-methods approaches, providing broader perspectives on nurses' experiences in assessing subjective workload and its impact on job satisfaction (Tricco et al., 2018).
4. Study populations must explicitly involve nurses working in non-intensive care units, excluding those working in critical care environments such as ICUs, NICUs, or PICUs.
5. Only full-text articles will be considered, ensuring that the analysis is conducted in depth and based on strong empirical evidence.

Furthermore, a publication date restriction from 2020 to 2024 has been applied to ensure that the review reflects the most recent and relevant findings in the field (Tricco et al., 2018). Only articles published in English will be included to maintain high academic standards and ensure accessibility to the global scientific community.

On the other hand, certain exclusion criteria have also been applied in this study:

1. Articles categorized as literature reviews, systematic reviews, or other scoping reviews will be excluded to avoid duplication in analysis and to ensure that only primary research studies contribute to the body of evidence being mapped (Peters et al., 2020).
2. Duplicate publications appearing in multiple journals will be excluded to maintain the integrity and uniqueness of the scoping review findings.

### **Databases**

This study utilized several major databases, including BMC, ScienceDirect, and ProQuest, which were selected for their extensive coverage of scientific literature relevant to *Subjective Workload Assessment* among nurses, with *Social Support* as a moderating factor for *Work Quality Satisfaction* in non-intensive care units. In addition, other sources such as Google Scholar and institutional academic repositories were used to supplement the search and ensure that studies not indexed in the primary databases could be identified. The selection of these databases aimed to obtain comprehensive, high-quality scientific evidence based on rigorous academic standards, thereby ensuring the accuracy and validity of the findings in this literature review (Peters et al., 2020; Tricco et al., 2018).

### **Search Strategy**

In the literature search, a combination of keywords with Boolean operators was used to obtain more specific results and facilitate the selection of articles relevant to this research topic. The keywords used in this search were ("Subjective Workload Assessment" OR "Workload Perception" OR "Perceived Workload") AND ("Registered Nurses" OR "Clinical Nurses" OR "Hospital Nurses") AND ("Social Support" OR "Supervisor Support" OR "Colleague Support") AND ("Work Quality Satisfaction" OR "Job Satisfaction" OR "Work Performance") AND ("General Ward" OR "Medical-Surgical Unit" OR "Rehabilitation Unit" OR "Outpatient Care"). By applying these keywords across multiple academic databases and utilizing Boolean operators, the researchers successfully identified a set of articles that met the initial search criteria (Peters et al., 2020). The search process included articles retrieved from BMC, ScienceDirect, ProQuest, and other relevant sources. In total, the initial search yielded [number of articles] articles that matched the predefined keywords, distributed as follows: 1 from BMC, 3 from ScienceDirect, 63 from ProQuest, and 161 from other relevant sources.

The literature search was conducted following the principles of transparency and replicability, with each step of the search process clearly documented. Additionally, expert librarians were consulted in designing the search strategy to ensure comprehensive identification of all relevant sources (Tricco et al., 2018). This strategy was designed to ensure that the literature review encompasses comprehensive, relevant, and high-quality scientific evidence in understanding the relationship between Subjective Workload Assessment, Social Support, and Work Quality Satisfaction among nurses working in non-intensive care units.

### **Article Screening**

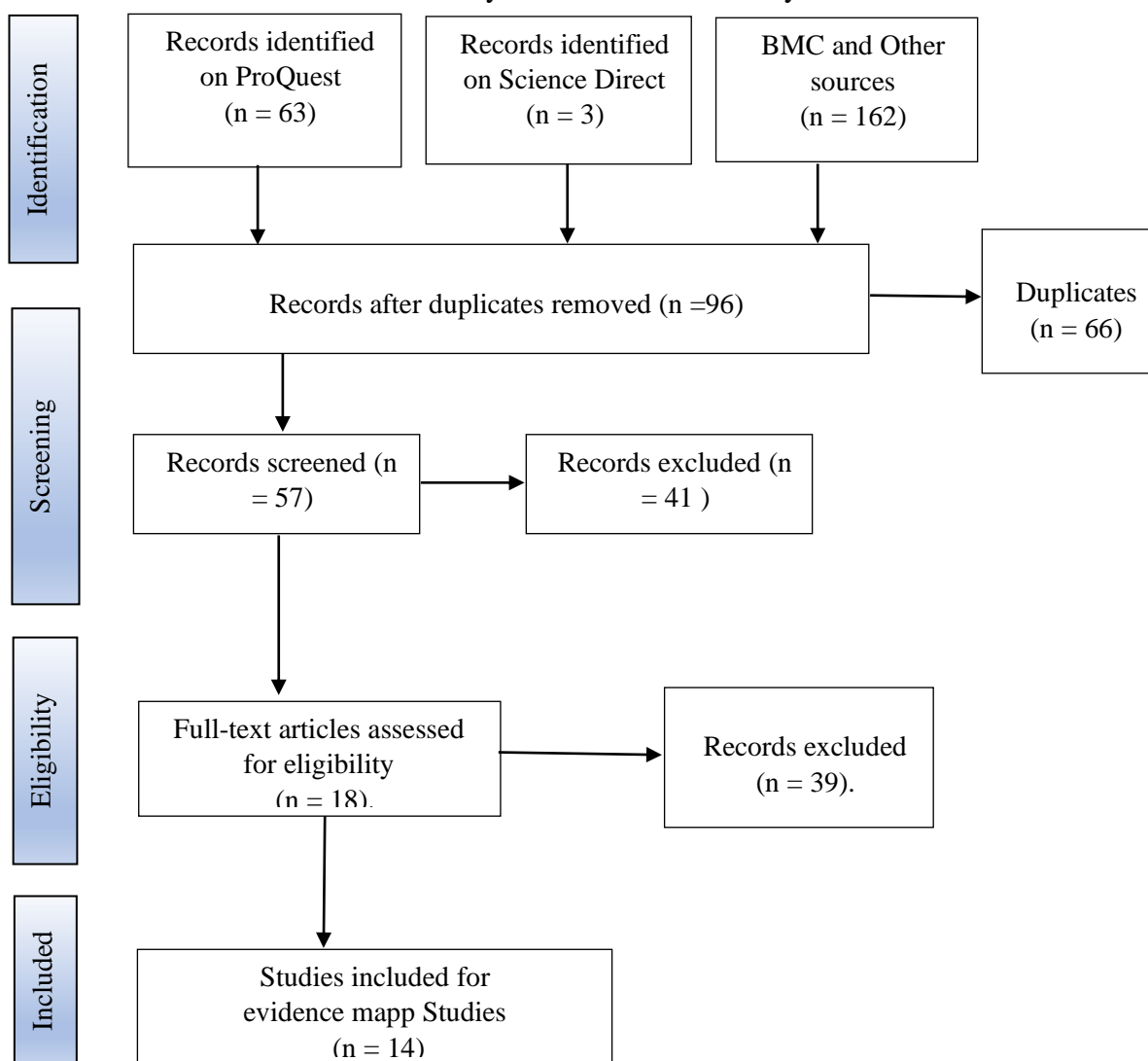
The article screening process in this study followed the PRISMA-ScR flow diagram, encompassing the identification, screening, eligibility assessment, and inclusion stages to ensure that only relevant and eligible studies were included in the analysis (Tricco et al., 2018). The screening process began with the removal of duplicate articles retrieved from various databases. Subsequently, titles and abstracts were reviewed to retain articles explicitly addressing *Subjective Workload Assessment* among nurses, with *Social Support* as a moderating factor for *Work Quality Satisfaction* in non-intensive care units. Articles categorized as literature reviews, systematic reviews, or other scoping reviews were excluded to prevent duplication in the analysis (Peters et al., 2020). Following this stage, full-text articles that passed the initial selection were further assessed for compliance with the predetermined inclusion and exclusion criteria, ensuring that only highly relevant articles were selected for analysis.

### **Data Extraction**

The data extraction process was conducted systematically using a pre-designed template to ensure consistency in collecting and analyzing information from each article. This process involved gathering data relevant to the key aspects of this study, which were then analyzed descriptively to identify major findings, research trends, and gaps in the existing literature regarding the relationship between *Subjective Workload Assessment*, *Social Support*, and *Work Quality Satisfaction* among nurses in non-intensive care units (Tricco et al., 2018). By adopting this systematic approach, this scoping review aims to provide a comprehensive mapping of the available scientific evidence while offering a deeper understanding of how these factors interact within the nursing work environment.

## RESULT

The researchers utilized four primary databases for the literature search, namely BMC, ScienceDirect, ProQuest, and other sources. During the identification stage, a total of 228 articles were retrieved from these databases, distributed as follows: 1 article from BMC, 3 articles from ScienceDirect, 63 articles from ProQuest, and 161 articles from other sources. These articles were then further screened based on inclusion criteria, which required publications from 2020 to 2024, availability in full-text format, and written in English. Following the initial screening, 190 articles met these criteria. A secondary screening process was conducted by reviewing titles and abstracts to ensure relevance to the research topic. Articles categorized as literature reviews, systematic reviews, or other scoping reviews were excluded to prevent duplication of findings. Additionally, articles that appeared as duplicates across multiple databases were also eliminated. After this process, 45 articles proceeded to the full-text evaluation stage to determine whether their content was truly aligned with the objectives of this study. In the final assessment stage, articles that did not explicitly discuss Subjective Workload Assessment among nurses, with Social Support as a moderating factor for Work Quality Satisfaction in non-intensive care units, were excluded from the analysis. Articles that did not present primary research findings or lacked sufficient data to support the mapping process in this scoping review were also removed. After the final selection process, 12 articles were identified as the final body of literature to be analyzed in this review.



Picture 1. PRISMA Flowchart

### Critical Appraisal Results

The initial assessment of the selected articles was conducted independently by the researchers. Discrepancies in evaluations were resolved through discussion until a final consensus was reached. In this study, the Joanna Briggs Institute (JBI) Critical Appraisal Tools (2020 version) were utilized to evaluate the quality of various study designs included in this literature review. Among the 14 articles included in the final analysis, various research designs were identified, including cross-sectional studies (n=13). Additionally, the Mixed Methods Appraisal Tool (MMAT) version 2018 was utilized to evaluate one mixed-method study (n=1). Each article was assessed based on criteria relevant to its respective methodology, including internal validity, methodological clarity, result relevance, and potential biases in the study.

### Articles Included in the Literature Review

The results of the initial analysis, further review, and identification ultimately included 14 articles. The following table provides detailed information about each article:

Table 2.  
Accumulated Critical Assessment of Articles

ID	Title	Criteria													Mark
		1	2	3	4	5	6	7	8	9	10	11	12	13	
<b>JBI Cross-sectional Study</b>															
SWA-01	Analysis of Factors Related to the Mental Workload of Nurses During Interaction Through Nursing Care in the Intensive Care Unit	✓	✓	✓	✓	-	-	✓	✓						75.0%
SWA-02	The Influence of Workload and Organizational Culture on Quality of Nursing Work Life: A Case Study	✓	✓	✓	✓	✓	-	✓	✓						87,5%
SWA-03	Areas of Professional Life and Job Satisfaction of Nurses	✓	✓	✓	✓	✓	✓	✓	✓						100%
SWA-04	Relationship Between Job Satisfaction and Workload of Nurses in Adult Inpatient Units	✓	✓	✓	✓	-	-	✓	✓						75%
SWA-05	The Relationship Between Workload and Social Support with Nurse Job Satisfaction in Hospital Inpatient Rooms	✓	✓	✓	✓	-	-	✓	✓						75%
SWA-06	Professional Quality of Life and Job Satisfaction Among Nurses Working at Tertiary Hospitals in Central Ethiopia	✓	✓	✓	✓	✓	✓	✓	✓						100%

ID	Title	Criteria													Mark		
		1	2	3	4	5	6	7	8	9	10	11	12	13			
SWA-07	Hospital Nurses' Job Stressors and Social Support Behaviors During the COVID-19 Era	✓	✓	✓	✓	✓	✓	✓	✓	✓							100%
SWA-08	The Impact of an Employee Action Program on Staff Accountability and Nursing Retention	✓	✓	✓	✓	✓	✓	✓	✓	✓							100%
SWA-10	Information System Use Antecedents of Nursing Employee Turnover in a Hospital Setting	✓	✓	✓	✓	-	-	✓	✓								75%
SWA-11	Balancing is a Necessity, Not Leisure: A Study on Work-Life Balance in the Healthcare Sector of Pakistan	✓	✓	✓	✓	-	-	✓	✓								75%
SWA-12	The Influence of Social Support on the Relationship Between Emotional Demands and Health of Hospital Nurses	✓	✓	✓	✓	-	-	✓	✓								75%
SWA-13	The Effect of Subjective Perception of Work in Relation to Occupational and Demographic Factors on the Mental Health of Polish Nurses	✓	✓	✓	✓	✓	✓	✓	✓	✓							100%
SWA-14	Job Demands at the Patient's Bedside and Their Effects on Stress and Satisfaction of Nurses	✓	✓	✓	✓	✓	✓	✓	✓	✓							100%
<b>Mix-method Study Design</b>																	
SWA-1	Exploring hospital compliance with the primary nursing care model: validating an inventory using the Delphi method	The findings indicated that 17 (100%) out of 17 criteria were met, confirming a robust integration of qualitative and quantitative methods, including systematic validation of the checklist through the Delphi method.													100%		

Table 3.  
Analysis of Literature Results

Article ID	Author(s) and Journal Information	Journal Title	Objective	Population and Sample	Method	Summary of Findings
SWA-01	Authors: Hany Wihardjaa, Rr. Tutik Sri Hariyati, Dewi Gayatri. Journal Information: Enferm Clin, Vol. 29(S2), 2019 (Wihardjaa, 2019)	Analysis of Factors Related to the Mental Workload of Nurses During Interaction Through Nursing Care in the Intensive Care Unit	To identify the most influential factors affecting nurses' mental workload in ICUs.	129 ICU nurses (military, government, private hospitals).	Quantitative cross-sectional study, questionnaire, logistic regression analysis.	Motivational factors were found to have the greatest influence on mental workload compared to individual, task-related, and organizational factors.
SWA-02	Authors: Ika Mutia Silviana, Tasya Aspiranti, Wawang Setiawan Sukarya, et al. Journal Information: IJSSHRM, Vol. 3(2), 2024 (Silviana, 2024)	The Influence of Workload and Organizational Culture on Quality of Nursing Work Life: A Case Study	To analyze the influence of workload and organizational culture on the quality of nursing work life.	73 nurses from RSUD Arjawinangun.	Analytical survey, cross-sectional approach, SPSS analysis.	Organizational culture had a greater impact on nurses' quality of work life compared to workload.
SWA-03	Authors: Katarzyna Tomaszewska, Krystyna Kowalczyk, Bożena Majchrowicz, et al. Journal Information: Frontiers in Public Health, Vol. 12, 2024 (Tomaszewska, 2024)	Areas of Professional Life and Job Satisfaction of Nurses	To examine the relationship between aspects of professional life and nurses' job satisfaction.	509 nurses in public hospitals in Poland.	Quantitative survey, Minnesota Satisfaction Questionnaire (MSQ), Areas of Worklife Survey (AWS), linear regression analysis.	Job satisfaction was influenced by interdisciplinary team support, organizational fairness, and alignment of nurses' values with institutional values.
SWA-04	Authors: María Fuensanta Hellín Gil, José Antonio Ruiz Hernández, Francisco Javier Ibáñez-López, et al. Journal Information: Int. J. Environ. Res. Public Health, Vol. 19(11), 2022 (Hellín Gil, 2022)	Relationship Between Job Satisfaction and Workload of Nurses in Adult Inpatient Units	To examine the relationship between workload and job satisfaction among nurses in adult inpatient units.	104 nurses from eight inpatient units across four hospitals.	Observational, analytical, descriptive, quantitative approach.	High workload levels were associated with lower job satisfaction, particularly concerning organizational management aspects.
SWA-05	Authors: Nadia Izzata, Nursalam, Rizki Fitriyasaki. Journal Information: Fundamental and	The Relationship Between Workload and Social Support with Nurse Job	To examine the relationship between workload and social support in relation to	116 nurses at RSUD Dr. Harjono Ponorogo.	Correlational descriptive study, cross-sectional approach, logistic	Lower workload levels and strong social support were linked to higher nurse job satisfaction.

Article ID	Author(s) and Journal Information	Journal Title	Objective	Population and Sample	Method	Summary of Findings
	Management Nursing Journal, Vol. 4(2), 2021 (Izzata, 2021)	Satisfaction in Hospital Inpatient Rooms	nurses' job satisfaction in inpatient wards.		regression.	
SWA-06	Authors: Sentayehu Admasu Saliya, Taye Mezgebu Ashine, Asnakech Zekiwos Heliso, et al. Journal Information: BMC Nursing, Vol. 23(417), 2024 (Saliya, 2024)	Professional Quality of Life and Job Satisfaction Among Nurses Working at Tertiary Hospitals in Central Ethiopia	To assess the professional quality of life and job satisfaction among nurses in Ethiopia.	420 nurses (407 respondents, 96.68% response rate).	Descriptive cross-sectional study, linear regression.	A positive correlation was found between job satisfaction and compassion satisfaction, with predictors including marital status, education level, and work experience.
SWA-07	Authors: Majd T. Mrayyan, Abdullah Alunmeeyn, Saleem Al-Rjoub. Journal Information: SAGE Open, Vol. 14(3), 2024 (Mrayyan, 2024)	Hospital Nurses' Job Stressors and Social Support Behaviors During the COVID-19 Era	To analyze nurses' job stressors and social support behaviors during the COVID-19 pandemic.	392 nurses in hospitals in Jordan.	Cross-sectional study, online survey, Generalized Linear Model (GLM) regression analysis.	Social support can mitigate nurses' job stressors; however, better staffing policies are necessary to ensure their well-being.
SWA-08	Authors: Amber Crouse. Journal Information: Gardner-Webb University Nursing Theses, 2021 (Crouse, 2021)	The Impact of an Employee Action Program on Staff Accountability and Nursing Retention	To examine the impact of an employee action program on staff accountability and nursing retention.	Study conducted in an academic hospital in North Carolina.	Implementation study, leadership program evaluation.	Leadership education programs improved managerial accountability and increased nurse retention rates.
SWA-09	Authors: Laura Anne Buckley. Journal Information: University of Toronto Nursing Dissertation, 2022 (Buckley, 2022)	Work Environment, Clinician Attitudes, and Outcomes Relationship Evaluation: The WE CARE Study	To identify workplace factors contributing to nurse burnout in pediatric care.	Pediatric nurses in a quaternary-level children's hospital, Toronto, Canada.	Mixed-methods study, cross-sectional survey, interviews.	Modifiable workplace factors contribute to pediatric nurse burnout, requiring evidence-based interventions.
SWA-010	Authors: Samuel C. Thompson, Aj Holmgren, Eric W. Ford. Journal Information: Health Care Management Review, Vol. 45(1), 2020 (Thompson, 2020)	Information System Use Antecedents of Nursing Employee Turnover in a Hospital Setting	To investigate the relationship between the use of information systems and nurse turnover rates.	Hospitals in the United States	Quantitative study, logistic regression analysis.	Ineffective use of information systems increased nurses' workload, contributing to high turnover rates

Article ID	Author(s) and Journal Information	Journal Title	Objective	Population and Sample	Method	Summary of Findings
SWA-011	Authors: Attia Aman-Ullah, Hadziroh Ibrahim, Azelin Aziz, Waqas Mehmood. Journal Information: Asia-Pacific Journal of Business Administration, Vol. 14(2), 2022 (Aman-Ullah, 2022)	Balancing is a Necessity, Not Leisure: A Study on Work-Life Balance in the Healthcare Sector of Pakistan	To explore work-life balance in the healthcare sector of Pakistan.	Healthcare professionals in Pakistan.	Quantitative study, regression analysis.	Poor work-life balance was linked to increased job stress and dissatisfaction.
SWA-012	Authors: Hyoung Eun Chang, Sung-Hyun Cho. Journal Information: Healthcare, Vol. 9(2), 2021 (Chang, 2021)	The Influence of Social Support on the Relationship Between Emotional Demands and Health of Hospital Nurses	To assess the impact of social support on the relationship between emotional demands and nurses' health	117 nurses from two tertiary hospitals in South Korea.	Cross-sectional study, variance analysis, Mann-Whitney test.	Social support from colleagues improved nurses' health, while support from supervisors was not always effective.
SWA-013	Authors: Krystyna Kowalczuk, Elżbieta Krajewska-Kułak, Marek Sobolewski. Journal Information: Frontiers in Psychiatry, Vol. 11, 2020 (Kowalczuk, 2020)	The Effect of Subjective Perception of Work in Relation to Occupational and Demographic Factors on the Mental Health of Polish Nurses	To assess the impact of job characteristics on the mental health of nurses in Poland.	558 nurses working in hospitals in Podlaskie Voivodeship, Poland.	Quantitative survey study, Subjective Work Evaluation Questionnaire (SWEQ), Goldberg's GHQ-28.	High workload and lack of social support negatively affected nurses' mental health.
SWA-014	Authors: Katharina Wenderott, Shiney Franz, Martin G. Friedrich, Margarete Boos. Journal Information: BMJ Open Quality, Vol. 12, 2023 (Wenderott, 2023)	Job Demands at the Patient's Bedside and Their Effects on Stress and Satisfaction of Nurses	To assess job demands at the patient's bedside and their impact on nurses' stress and job satisfaction	389 nurses from various units in a large German hospital.	Cross-sectional survey, Copenhagen Psychosocial Questionnaire.	High workload at the patient's bedside correlated with stress and burnout, necessitating interventions to improve working conditions.

### **The results of the literature analysis are as follows:**

Subjective Workload Assessment is a crucial aspect in evaluating nurses' well-being and work quality. High workload has been proven to have significant effects on job satisfaction, stress levels, burnout, and the overall quality of nursing care. This scoping review synthesizes key findings related to workload assessment methods, its impact on nurses' job satisfaction and mental health, as well as implementation challenges and research gaps that need further exploration.

### **Methods of Subjective Workload Assessment in Nurses**

Various methods have been employed to measure subjective workload among nurses. The most commonly used instrument is the NASA Task Load Index (NASA-TLX), which has been utilized in research to evaluate the mental workload of nurses in intensive care units (ICUs). Studies indicate that motivational factors exert a more significant influence than individual, task-related, or organizational factors in determining perceived workload levels among nurses (Wihardjaa et al., 2019). Additionally, the Subjective Workload Assessment Technique (SWAT) has been applied to assess the emotional demands experienced by nurses. Findings suggest that social support from colleagues plays a crucial role in mitigating subjective workload stress (Chang & Cho, 2021). Meanwhile, the Job Demand-Control model, applied in several studies, indicates that nurses who have greater control over their tasks and are supported by fair and flexible organizational policies exhibit higher job satisfaction levels (Tomaszewska et al., 2024).

### **Impact of Subjective Workload on Job Satisfaction**

High subjective workload has been negatively correlated with job satisfaction among nurses. Research shows that the higher the perceived workload level, the lower the job satisfaction across various aspects of nursing practice (Hellín Gil et al., 2022; Silviana et al., 2024). One of the primary factors influencing job satisfaction is organizational management. Studies highlight that hospitals with inefficient workload distribution and poor management systems report lower job satisfaction among nurses. Furthermore, a strong organizational culture has been found to mitigate the negative impact of workload on job satisfaction by fostering a more supportive and motivating work environment (Silviana et al., 2024). High workload also directly affects the quality of nursing care provided. Nurses experiencing fatigue due to excessive workload are more prone to a decline in service quality. They are more likely to suffer from emotional exhaustion, which in turn increases the risk of medication errors and suboptimal patient care (Izzata et al., 2021).

### **Impact of Subjective Workload on Mental Health and Burnout**

Studies reveal that high subjective workload is strongly correlated with increased stress and burnout among nurses. Nurses perceiving a high workload level are more likely to experience emotional exhaustion, negatively affecting their mental well-being (Kowalczyk et al., 2020). Furthermore, research indicates that excessive workload increases the risk of anxiety, sleep disturbances, and even depression among healthcare workers (Saliya et al., 2024). Recent research emphasizes that patient bedside demands contribute significantly to higher stress levels among nurses. The increasing workload in clinical settings reduces nurses' capacity to provide optimal care, thereby heightening emotional and physical strain (Wenderott et al., 2023).

### **The Moderating Role of Social Support**

Social support has been identified as a key factor in mitigating the negative impact of high workload. Studies indicate that nurses who receive support from colleagues cope better with job-related stress compared to those who rely solely on managerial or supervisory support

(Chang & Cho, 2021). Peer support has proven to be more effective than hierarchical support in helping nurses manage stress (Saliya et al., 2024). During the COVID-19 pandemic, research found that nurses with strong social support systems were better equipped to handle the psychological pressures associated with increased workload (Mrayyan et al., 2024)

### Organizational and Policy Interventions

Several organizational and policy interventions have been identified as potential strategies to mitigate the negative effects of high workload on nurses. One of the primary interventions is the restructuring of shift schedules and equal workload distribution. Research suggests that nurses working under more flexible shift systems experience lower stress levels and higher job satisfaction (Buckley, 2022). Additionally, studies highlight the importance of stress management training and resilience-building programs for nursing professionals. These training programs have been proven to help nurses develop better coping strategies to manage high job demands (Aman-Ullah et al., 2022).

### Implementation Challenges and Research Gaps

Despite the extensive research on the impact of subjective workload on nurses, several challenges remain in the implementation of effective mitigation strategies. One of the primary barriers is the lack of standardized evaluation criteria for measuring subjective workload across different healthcare settings. This inconsistency leads to variations in how workload is interpreted and analyzed in different institutions (Thompson et al., 2022).

Table 5.  
Key issues emerging

Key Issues	Specific Aspects	Sources	Quotations
Measurement Methods of Subjective Workload	Use of NASA-TLX, SWAT, and Job Demand-Control models	Wihardjaa et al. (2019); Tomaszewska et al. (2024)	"NASA-TLX and SWAT are widely used to assess nurses' workload, but differences in results indicate the need for more tailored approaches." (Wihardjaa et al., 2019)
Impact on Work Quality Satisfaction	High workload associated with lower job satisfaction	Hellín Gil et al. (2022); Silviana et al. (2024)	"High levels of workload were associated with lower job satisfaction, especially regarding organizational management." (Hellín Gil et al., 2022)
Effect on Mental Health and Burnout	Increased stress and burnout among nurses with high workload	Kowalczyk et al. (2020); Wenderott et al. (2023)	"Nurses with higher workload reported significantly greater burnout and stress, leading to decreased quality of patient care." (Kowalczyk et al., 2020)
Moderating Role of Social Support	Colleague support more effective in reducing stress than supervisor support	Chang & Cho (2021); Saliya et al. (2024)	"Colleagues' social support played a crucial role in alleviating stress, whereas supervisor support did not always yield positive effects." (Chang & Cho, 2021)
Organizational and Policy Interventions	Need for shift scheduling improvements and workload distribution	Buckley et al. (2022); Wihardjaa et al. (2019)	"Shift scheduling improvements and equal workload distribution were suggested as key interventions to improve job satisfaction." (Buckley et al., 2022)
Implementation Challenges	Challenges in implementing subjective workload assessment tools	Thompson et al. (2020); Crouse et al. (2021)	"Hospitals face challenges in implementing subjective workload assessment tools due to lack of standardized evaluation criteria." (Thompson et al., 2020)
Research Gaps	Lack of longitudinal studies on long-term impact of workload on nurses' mental health	Weigl et al. (2022); Aman-Ullah et al. (2022)	"There is a lack of longitudinal studies examining the long-term effects of high workload on nurses' mental health and job satisfaction." (Weigl et al., 2022)

Additionally, there is a lack of longitudinal research on the long-term effects of subjective workload on nurses' mental well-being. Most studies conducted so far are cross-sectional, providing only a snapshot of workload effects rather than an in-depth understanding of its prolonged impact on mental health (Aman-Ullah et al., 2022). Finally, research also highlights that despite the clear identification of workload-related issues, there is still a lack of evidence-based interventions to address these problems. Many existing interventions are reactive rather than proactive, making them insufficient for providing long-term solutions to workload-related challenges (Crouse, 2021).

## **DISCUSSION**

### **Subjective Workload Assessment Methods for Nurses**

Subjective workload assessment is a crucial aspect in understanding how nurses perceive their daily work-related pressures. Various methods have been developed to measure subjective workload, yet differences persist in the approaches adopted by different studies. The NASA Task Load Index (NASA-TLX) is one of the most frequently used instruments for assessing nurses' mental workload, particularly in high-pressure environments such as intensive care units (ICUs) (Wihardjaa et al., 2019). This instrument enables a multidimensional evaluation of perceived workload, including mental, physical, temporal, and effort-related aspects involved in task execution. In addition to NASA-TLX, the Subjective Workload Assessment Technique (SWAT) has also been utilized in research to assess nurses' emotional demands. This approach places greater emphasis on psychological stress arising from high workload levels, including interactions with patients and their families (Chang & Cho, 2021). Studies have shown that nurses working in emotionally demanding environments, such as oncology and palliative care units, tend to experience higher levels of subjective workload compared to those working in units with more limited patient interaction. Another frequently employed model in workload assessment is the Job Demand-Control Model, which evaluates the relationship between job demands and individual control over work tasks. Studies indicate that nurses with greater control over their work schedules, supported by fair and flexible organizational policies, report higher job satisfaction levels despite facing heavy work demands (Tomaszewska et al., 2024). However, despite the widespread use of these various methods in research, there is still no universal standard that can be consistently applied across different healthcare institutions.

### **Impact of Workload on Nurses' Job Satisfaction**

High levels of subjective workload have been found to negatively impact nurses' job satisfaction. Research indicates that the greater the perceived workload, the lower the level of job satisfaction, particularly in terms of the balance between job demands and the availability of supporting resources (Hellín Gil et al., 2022). Excessive workload often leads to nurses feeling undervalued and experiencing limitations in making professional decisions, which in turn affects their perception of job satisfaction. Additionally, excessive workload exacerbates working conditions within hospital environments, especially when workload distribution is uneven and shift systems lack flexibility (Silviana et al., 2024). When nurses perceive that they are assigned heavier workloads compared to their colleagues or when rigid shift schedules disrupt work-life balance, overall job satisfaction tends to decline significantly. However, some studies suggest that a strong organizational culture and supportive policies can help mitigate the negative effects of workload on nurses' job satisfaction. Institutions that implement more equitable and flexible workforce management strategies demonstrate higher levels of nurse satisfaction, as employees feel more valued and have greater autonomy over their work environment (Silviana et al., 2024).

### **Impact of Workload on Nurses' Mental Health and Burnout**

Excessive subjective workload is also associated with negative impacts on nurses' mental health, including stress, anxiety, burnout, and sleep disturbances. Research shows that the higher the level of subjective workload, the more likely nurses are to experience emotional and psychological exhaustion (Kowalczyk et al., 2020). Furthermore, high work demands increase the risk of depersonalization, where nurses feel increasingly emotionally detached from their patients. When this condition persists over time, it can lead to a decline in the quality of nursing care and an increased likelihood of medical errors (Wenderott et al., 2023). Studies also indicate that excessive workload contributes to sleep disturbances, which in turn negatively affect nurses' performance at work (Saliya et al., 2024). Prolonged burnout can have broader negative consequences, including increased nurse turnover rates and a decline in healthcare service quality. Therefore, effective mitigation strategies are essential to reduce the negative impact of workload on nurses' mental health and to ensure their well-being.

### **The Role of Social Support in Reducing Workload Impact**

Social support from colleagues and the organizational environment plays a significant role in reducing the negative impact of high workload. Studies show that peer support is more effective than managerial support in helping nurses cope with job-related stress (Chang & Cho, 2021). Moreover, during the COVID-19 pandemic, social support became a key factor in helping nurses manage the drastically increased workload. Nurses with strong social networks in the workplace were better equipped to handle emotional and psychological stress caused by the surge in patient numbers and limited healthcare resources (Mrayyan et al., 2024). Further research highlights that hospitals that actively foster a collaborative work culture create a more supportive work environment, which in turn helps reduce the adverse effects of workload on nurses' well-being (Saliya et al., 2024). This underscores the need for healthcare institutions to implement strategies that strengthen workplace social support mechanisms.

### **Organizational and Policy Interventions to Reduce Workload**

Organizational interventions have been proposed as key strategies to mitigate the negative effects of high workload on nurses' well-being. One of the most frequently discussed interventions in research is the restructuring of work schedules and more equitable workload distribution. Studies show that nurses working in more flexible shift systems tend to experience lower stress levels and higher job satisfaction (Buckley, 2022). In addition, stress management training and resilience-building programs have been identified as effective strategies. These training programs help nurses develop better coping mechanisms for handling high job demands, thereby maintaining optimal levels of nursing care (Aman-Ullah et al., 2022).

### **Challenges in Implementing Workload Evaluation**

Despite extensive research on the impact of subjective workload on nurses' well-being, various challenges remain in implementing effective mitigation strategies. One of the primary challenges is the lack of standardized evaluation criteria for measuring subjective workload across different hospitals (Thompson et al., 2022). Currently, workload assessment methods vary across healthcare institutions, making it difficult to compare research findings comprehensively. This variation in evaluation methods also complicates the development of evidence-based policies aimed at addressing the negative impact of high workload on nursing professionals' well-being (Thompson et al., 2022). Furthermore, limited institutional resources and resistance to policy changes pose additional obstacles to implementing systematic workload assessment frameworks. Without standardized guidelines, hospitals struggle to establish fair workload distribution systems, which can exacerbate nurse dissatisfaction and increase turnover rates.

### Research Gaps on the Long-Term Impact of Workload

Apart from implementation challenges, research gaps persist in understanding the long-term effects of subjective workload on nurses. Most existing studies remain cross-sectional, meaning they provide only a snapshot of nurses' working conditions without evaluating their prolonged impact (Aman-Ullah et al., 2022). Longitudinal studies are needed to examine how workload affects nurses' well-being over time, as well as to determine the extent to which factors such as social support, organizational culture, and policy interventions can mitigate the negative effects of high workload (Aman-Ullah et al., 2022). Furthermore, more in-depth research on the effectiveness of various evidence-based interventions is urgently needed, given that most mitigation strategies currently implemented remain reactive rather than proactive (Crouse, 2021).

### CONCLUSION

The assessment of subjective workload in nurses has a significant impact on job satisfaction, mental well-being, and the overall quality of nursing care. High workload levels have been linked to increased stress, burnout, and a decline in healthcare service quality. Additionally, organizational factors such as uneven workload distribution, inflexible work schedules, and a lack of social support within the work environment further exacerbate the negative effects of excessive workload on nursing professionals. Therefore, a deeper understanding of the factors influencing nurses' workload perception is crucial for developing more effective mitigation strategies. Although various methods have been employed to assess subjective workload—such as the *NASA Task Load Index* (NASA-TLX), *Subjective Workload Assessment Technique* (SWAT), and *Job Demand-Control Model*—there is still no universally standardized evaluation framework that can be uniformly applied across different healthcare institutions. Furthermore, research gaps persist regarding the long-term impact of subjective workload on nurses' well-being. Most available studies are cross-sectional, providing only a snapshot of the issue rather than a comprehensive understanding of how workload influences job satisfaction and the quality of nursing care over time.

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