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Nursing absenteeism and team management: an integrative review

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ABSTRACT

Introduction: Nursing absenteeism is an important workforce-management challenge in hospitals, with implications for staff availability, costs, and service organization.
Objectives: To identify factors associated with absenteeism among hospital nurses, examine its consequences, and synthesize prevention and management strategies.
Methodology: An integrative literature review was conducted in MEDLINE via PubMed, CINAHL Ultimate via EBSCOhost, and Scopus for studies published between January 1st, 2019 and September 7th, 2026. Primary quantitative, qualitative, and mixed-methods studies addressing nursing absenteeism in hospital settings were eligible. Study selection followed a structured reporting framework, and methodological quality was assessed using design-appropriate Joanna Briggs Institute critical appraisal tools.
Results: Of 904 records identified, 52 primary studies were included. Absenteeism was associated with physical and musculoskeletal conditions, fatigue, sleep and mental-health factors, family responsibilities, workload, staffing, shift patterns, recovery time, workplace bullying, and the practice environment. Directly measured consequences included lost working time, financial and productivity costs, and staffing pressure. Management priorities included systematic monitoring, workload-responsive staffing, safer scheduling, occupational-health and ergonomic support, supportive leadership, work-family flexibility, and structured return-to-work pathways. Most management evidence was observational, and intervention evidence was limited.
Conclusion: Hospital nursing absenteeism is a multidimensional workforce phenomenon that requires multilevel organizational responses. Stronger prospective and intervention studies are needed to determine which strategies sustainably reduce absenteeism.

Contributions: Conceptualization: Sousa VAM, Natário AIT, Conceição NMP and Rocha MPJA; Data curation: Sousa VAM and Natário AIT; Formal analysis: Sousa VAM and Natário AIT; Investigation: Sousa VAM, Natário AIT and Conceição NMP; Methodology: Sousa VAM, Natário AIT, Conceição NMP and Rocha MPJA; Validation: Conceição NMP and Rocha MPJA; Visualization: Sousa VAM and Natário AIT; Writing – original draft: Sousa VAM and Natário AIT; Writing – review & editing: Conceição NMP and Rocha MPJA.

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RESUMO

Introdução: O absentismo em enfermagem constitui um desafio relevante para a gestão dos recursos humanos hospitalares, com implicações na disponibilidade de profissionais, custos e organização dos serviços.
Objetivos: Identificar os fatores associados ao absentismo dos enfermeiros em contexto hospitalar, analisar as suas consequências e sintetizar estratégias de prevenção e gestão.
Metodologia: Realizou-se uma revisão integrativa da literatura na MEDLINE via PubMed, CINAHL Ultimate via EBSCOhost e Scopus, incluindo estudos publicados entre 1 de janeiro de 2019 e 7 de setembro de 2026. Foram elegíveis estudos primários quantitativos, qualitativos e de métodos mistos sobre absentismo da enfermagem em contexto hospitalar. A seleção dos estudos seguiu um referencial estruturado de reporte e a qualidade metodológica foi avaliada com instrumentos de apreciação crítica do *Joanna Briggs Institute* adequados ao desenho dos estudos.
Resultados: Dos 904 registos identificados, foram incluídos 52 estudos primários. O absentismo associou-se a doença física e musculoesquelética, fadiga, sono e saúde mental, responsabilidades familiares, carga de trabalho, dotação, turnos, recuperação, *mobbing* e ambiente de prática. As consequências incluíram tempo de trabalho perdido, custos financeiros e de produtividade e pressão sobre a dotação. As prioridades de gestão incluíram monitorização, dotação ajustada à carga, escalas mais seguras, saúde ocupacional e ergonomia, liderança de apoio, conciliação trabalho-família e percursos estruturados de regresso ao trabalho. A maioria da evidência relativa à gestão foi observacional e a evidência de intervenção permaneceu limitada.
Conclusões: O absentismo da enfermagem hospitalar é um fenómeno multidimensional que requer respostas organizacionais multinível e investigação prospetiva e de intervenção mais robusta.

Introduction

Nursing absenteeism is a recurrent workforce-management problem with implications for staff availability, workload distribution, organizational costs, and continuity of hospital care.[1,2] In nursing, absence is associated with interacting individual and occupational factors, including physical and mental health, fatigue, work schedules, workload, and characteristics of the practice environment.[1,3] Burnout and work engagement also reflect the psychosocial conditions in which nurses work and are relevant to workforce sustainability.[3] Although management strategies have been proposed, the evidence remains heterogeneous, ranging from observational associations and managers' experiences to a comparatively small body of intervention research.[4,5]

Conceptually, absenteeism is not a uniform outcome. Across the nursing literature, it may be operationalized as sickness absence, sick leave, unplanned or unauthorized absence, or as episodes differentiated by duration, recurrence, or cause. This variation is not merely terminological: administrative records and self-reported measures capture different dimensions of absence and are shaped by institutional recording practices, eligibility rules, and employment conditions. Consequently, apparently similar absenteeism estimates may not be directly comparable across hospitals or countries, and the meaning of an observed rate depends on how absence was defined and measured.[1,5]

This distinction is particularly relevant to nursing management because the organizational significance of absence extends beyond the absent worker. Staffing plans in hospital services must maintain continuous care despite fluctuations in workforce availability; therefore, recurrent or prolonged absence may require redistribution of workload, replacement staffing, roster modification, or other compensatory responses. At the same time, working conditions such as staffing adequacy, workload, scheduling, leadership, and the practice environment are themselves among the factors examined in relation to absenteeism. The phenomenon should therefore be approached as both a workforce outcome and a potential indicator of the conditions under which nursing care is organized.[1,3-5]

Despite a growing literature, three uncertainties remain important for decision-making: which factors show the most consistent associations with hospital nursing absence, which organizational consequences have been directly demonstrated rather than assumed, and which proposed management responses have actually been evaluated as interventions. Bringing these strands together is necessary to distinguish modifiable management targets from strategies whose effectiveness remains uncertain. This distinction underpins the present review and its emphasis on the nature and strength of the evidence supporting management implications.[4,5]

Against this background, this integrative review updates and expands the evidence base by identifying factors associated with absenteeism among nurses in hospital settings, examining its consequences, and synthesizing prevention and management strategies.

Methodology

Design and review question

An integrative literature review was conducted. The review process was structured to provide a transparent audit trail across question formulation, literature searching, data extraction, critical appraisal, and synthesis, consistent with contemporary guidance for integrative reviews in nursing.[6] PRISMA 2020 was used as a reporting framework for study identification, selection, and presentation of the flow diagram rather than as the methodological framework for the integrative review.[7] The review question was structured according to the Population–Concept–Context (PCC) framework. The population comprised nurses and nursing staff; the concept encompassed absenteeism, including sickness absence, sick leave, work absence, and unplanned absence, as well as associated factors, consequences, and prevention and management strategies; and the context comprised hospital and acute-care settings. Accordingly, the review question was: *What factors are associated with absenteeism among nurses in hospital settings, what are its consequences, and which management strategies are used to prevent and reduce it?*

Review development and protocol registration

This review builds on an earlier integrative review conducted in August–September 2025 and presented at the IV International Nursing Convention in December 2025. The initial work reported searches in PubMed, CINAHL and Scopus and included 10 studies. The present review reflects an expanded and updated search and synthesis, resulting in 52 included primary studies. No prospective protocol registration was undertaken for this expanded integrative review; the earlier conference work did not constitute a prospectively registered protocol.

Eligibility criteria

Primary quantitative, qualitative, and mixed-methods studies published from January 1st 2019 to September 7th 2026 in English, Portuguese, or Spanish were eligible. Studies had to be conducted in a hospital or acute-care setting, include nurses or nursing staff, and report nursing-specific findings on absenteeism, sickness absence, sick leave, work absence, or unplanned absence. Eligible studies examined associated factors, consequences, or management and prevention strategies. Studies involving multiple professional groups were included only when nursing-specific absenteeism findings could be identified or extracted separately. Studies conducted outside hospital settings were excluded unless hospital nursing results were separable. Studies addressing turnover, burnout, or presenteeism without a direct absenteeism outcome were excluded. Editorials, letters, commentaries, conference abstracts without an eligible full report, and duplicate publications were excluded from the primary sample. Review articles were not included as primary evidence but could inform the background and discussion.

Information sources and search strategy

MEDLINE via PubMed, CINAHL Ultimate via EBSCOhost, and Scopus were searched for eligible publications. The updated search covered January 1st 2019 through September 7th 2026 (date of the final search). Search concepts combined terms for absenteeism (including absenteeism, sickness absence, sick leave, work absence, and unplanned absence), nursing (nurse, nurses, and nursing), and the hospital context (hospital and acute care). Controlled vocabulary was used where available and combined with title, abstract, or keyword terms appropriate to each database. The search was intentionally not restricted by a mandatory management term so that studies addressing determinants and consequences, as well as management, could be retrieved. Complete database-specific search strategies were retained in the review audit trail and are summarized with retrieval counts in Table 1.

Table 1. Search strategy applied in the databases.

Database	Search strategy	Limits	Records
MEDLINE via PubMed	("Absenteeism"[Mesh] OR absenteeism[Title/Abstract] OR "sickness absence"[Title/Abstract] OR "sick leave"[Title/Abstract] OR "work absence"[Title/Abstract] OR "unplanned absence"[Title/Abstract]) AND ("Nurses"[Mesh] OR nurse*[Title/Abstract] OR nursing[Title/Abstract]) AND ("Hospitals"[Mesh] OR hospital*[Title/Abstract] OR "acute care"[Title/Abstract]) AND ("2019/01/01"[Date - Publication] : "2026/09/07"[Date - Publication])	1 Jan 2019–7 Sep 2026	262
CINAHL Ultimate via EBSCOhost	(MH "Absenteeism+" OR TI absenteeism OR AB absenteeism OR TI "sickness absence" OR AB "sickness absence" OR TI "sick leave" OR AB "sick leave" OR TI "unplanned absence" OR AB "unplanned absence") AND (MH "Nurses+" OR TI nurse* OR AB nurse* OR TI nursing OR AB nursing) AND (MH "Hospitals+" OR TI hospital* OR AB hospital* OR TI "acute care" OR AB "acute care")	2019-7 Sep 2026	180
Scopus	TITLE-ABS-KEY(absenteeism OR "sickness absence" OR "sick leave" OR "work absence" OR "unplanned absence") AND TITLE-ABS-KEY(nurse* OR nursing) AND TITLE-ABS-KEY(hospital* OR "acute care") AND PUBYEAR > 2018 AND PUBYEAR < 2027	2019-2026 final search 7 Sep 2026	462

Study selection

The study selection process is summarized in Figure 1. Screening and eligibility decisions were documented in a structured review matrix. Reports that could not be retrieved were recorded separately from full-text exclusions.

Study selection was conducted independently by two reviewers at the title and abstract screening and full-text eligibility stages. During the subsequent study analysis process, the same two independent reviewers conducted the critical appraisal, data extraction and synthesis.

The two reviewers' critical-appraisal judgments were concordant; no third-reviewer adjudication was required for critical appraisal.

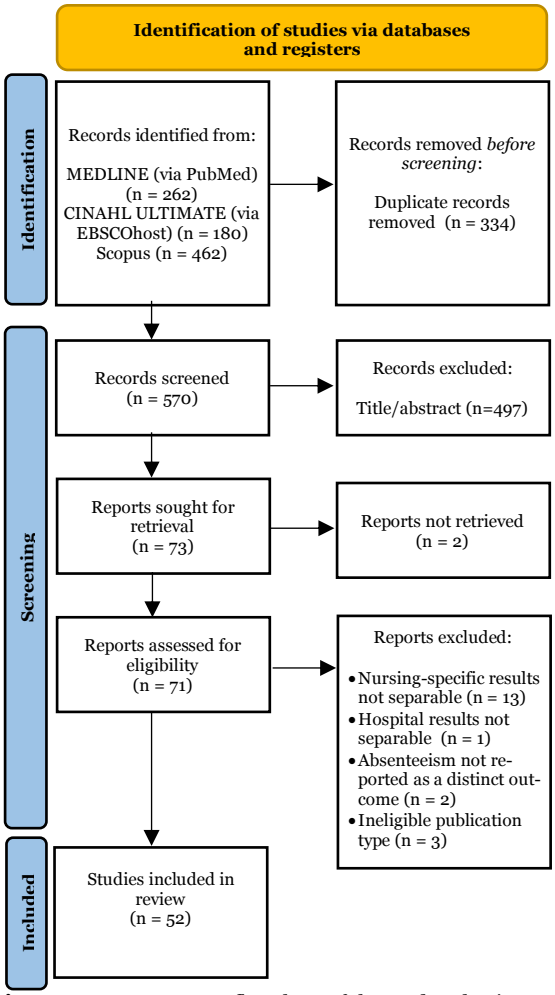


Figure 1. PRISMA 2020 flowchart of the study selection process[7]

Data extraction and critical appraisal

A standardized extraction matrix captured study identification, country and setting, design, population and sample, definition and measurement of absenteeism, main findings, associated factors, consequences, management implications or strategies, and limitations. Because denominators and units differed substantially across studies, sample sizes were not summed into a single participant count. Methodological quality was assessed using design-appropriate JBI critical appraisal tools.[8] Analytical cross-sectional, cohort, randomized controlled trial, quasi-experimental, and qualitative checklists were applied according to study design. For the single case-crossover study, appraisal was informed by JBI case-control domains adapted to the within-person crossover structure. Mixed-methods studies were appraised by evaluating the quantitative and qualitative components separately. Item-level judgments and descriptive overall assessments were used; no arbitrary numerical cutoff was applied to exclude studies. The main manuscript therefore reports design-level appraisal patterns rather than reproducing 52 study-level appraisal rows. JBI critical appraisal was used to assess design-specific methodological limitations and did not constitute a formal outcome-level certainty-of-evidence assessment. No GRADE or GRADE-CERQual assessment was performed. Thus, the strength of the overall evidence was interpreted cautiously in light of study design, consistency, temporality, and measurement limitations. Study-level appraisal judgments are documented in Supplementary File 1.

Data synthesis

Because study designs, absenteeism definitions, measurement methods, and outcomes were heterogeneous, statistical pooling was not considered appropriate. Findings were synthesized narratively, and all eligible studies remained in the review. For analytical organization, 36 studies in which hospital nursing absenteeism, sickness absence, absence management, or return to work was central were treated as core evidence, while 16 highly contextual or secondary-outcome studies provided complementary evidence. This distinction was used only to weight and structure the synthesis and did not constitute an additional eligibility criterion. The synthesis was organized into three categories: (1) factors associated with absenteeism, subdivided into individual or health-related and organizational or work-related factors; (2) consequences; and (3) prevention and management strategies. Management findings were distinguished as evaluated interventions, observational associations supporting a management action, or recommendations and strategies proposed by authors or participants.

The core/complementary distinction was an interpretive categorization based on the centrality of absenteeism to each study question and reported outcomes, not a validated methodological quality grade. Complementary studies were neither excluded nor counted as independent confirmation of core findings solely because they addressed related workplace factors. The 36 core and 16 complementary studies remained in the review. This distinction did not constitute a quality ranking, an additional eligibility criterion, or two independent evidence samples; the study-by-study assignments are provided in Supplementary File 1.

Ethical considerations

Because this integrative review used previously published evidence and did not recruit participants or collect identifiable individual data, ethics committee approval and informed consent were not applicable.

Results

Study selection and characteristics

The database searches identified 904 records. After removal of 334 duplicates, 570 unique records were screened, and 497 were excluded at the title and abstract stage. Of 73 reports sought for retrieval, two were not

retrieved. Seventy-one full-text reports were assessed, and 19 were excluded, leaving 52 primary studies.

During the revision-stage eligibility audit, one initially included multiprofessional report was reclassified as ineligible because nursing-specific absenteeism estimates were not separately extractable. This report is included among the 19 full-text exclusions under "nursing-specific results not separable".

The 52 included studies were published between 2019 and 2026. The largest number was published in 2022 (n=11), followed by 2019 (n=10), 2020 (n=8), 2025 (n=7), 2021 (n=6), 2023 (n=5), 2026 (n=4), and 2024 (n=1). Brazil was the most represented country (n=10), followed by England (n=4), with additional studies from North America, Europe, Asia, Africa, Latin America, and multinational samples. Cross-sectional, descriptive, or other retrospective observational studies predominated (n=35; 67.3%), followed by longitudinal or cohort studies (n=10; 19.2%) and one case-crossover study (n=1; 1.9%). The remaining studies comprised two mixed-methods studies, one randomized controlled trial, one quasi-experimental study, and two qualitative studies. Absenteeism measurement was heterogeneous: 20 studies used predominantly objective or administrative data, 21 relied mainly on self-report, nine used mixed sources, and two qualitative studies explored absence or return to work without estimating a rate. Characteristics of all included studies are presented in Table 2.

Table 2. Characterization of the studies included in the review.

Author / year	Country	Objective	Design / sample	Absenteeism assessment	Main findings
Mamatsharaga, Mutshatshi & Ramavhoya (2025) [4]	South Africa	Explore nurse managers' strategies to reduce absenteeism	Qualitative exploratory-descriptive study; 24 professional nurses; purposive sampling; semi-structured interviews to data saturation	Semi-structured qualitative interviews focused on nurse managers' strategies for addressing nurses' absenteeism	Managers described strategies including monitoring/consultation, recognition and support, referral for assistance, adequate human/material resources, policy implementation and disciplinary procedures
Luengo Martínez et al. (2020) [9]	Chile	Assess the association between occupational fatigue and work absenteeism	Cross-sectional analytical study; 110 female assistant nurses in a high-complexity hospital	Self-reported absenteeism/sick leave	The predominant absence range was 11–29 days; physical fatigue (OR 1.054; 95% CI 1.003–1.109) and service tenure (OR 1.084; 95% CI 1.032–1.139) were associated with absenteeism
Kunrath et al. (2021) [10]	Brazil	Identify predictors of sickness absenteeism among nursing professionals in an emergency hospital service	Cross-sectional, retrospective, descriptive-analytical study; 2,403 sick-leave records from 197 nursing professionals (2013–2018)	Administrative/occupational-health or electronic-roster absence data	Musculoskeletal disease strongly predicted absence ≥15 days (OR 8.95; 95% CI 5.30-15.11)
Booker et al. (2020) [11]	Australia	Examine shift-work disorder, depression/anxiety and sick leave among nurses	Cross-sectional/observational; 202 nurses; 179 with sick-leave data	Administrative/occupational-health or electronic-roster absence data	Mean 14.11 sick-leave days/year; depression and years of shift work explained 18.9% of variance
Gómez-Ramos et al. (2026) [12]	Mexico	Examine burnout and absenteeism among nursing staff, including gender-related patterns	Cross-sectional analysis; 154 permanently employed nursing professionals	Hospital human-resources absenteeism records; burnout measured with the validated Spanish healthcare-personnel Maslach Burnout Inventory	Burnout prevalence was 70.1%; 52.6% had absenteeism in 2024 and the hospital absenteeism rate was 4.8%. Burnout was not associated with overall absenteeism after gender adjustment (aOR 1.386; 95% CI 0.75-2.65; p=.412)
Mahmoud, El Mageed & Elewa (2026) [13]	Egypt	Examine workplace stressors in relation to causes and rates of absenteeism among emergency nurses	Descriptive correlational study; 151 emergency nurses; convenience sample	Official absenteeism records, alongside questionnaires on workplace stressors and causes of absenteeism	Total absenteeism rate was 8.6%; workplace stressors were associated with unauthorized absence, but not with sick leave/emergency leave or total absenteeism
Mat Saruan, Mohd Yusoff & Mohd Fauzi (2019) [14]	Malaysia	Assess family responsibilities and involuntary job absenteeism among hospital nurses	Cross-sectional/observational; 100 nurses; stratified random sample; 91% response	Self-reported absenteeism/sick leave	Annual prevalence 78%; elder care aOR 4.43 and no childcare help aOR 4.23
Heistad et al. (2022) [15]	Canada	Examine how intensive work environments relate to nurses' absenteeism and turnover intention	Cross-sectional survey; 302 critical-care registered nurses in Alberta, Canada	Self-reported illness-related days off during the previous 3 months; Practice Environment Scale of the Nursing Work Index	More positive practice-environment scores were associated with lower absenteeism; each 1-point PES-NWI increase corresponded to IRR 0.60 (p=.010)
Oliveira & Spiri (2022) [16]	Brazil	Examine absenteeism and associated factors among nurses and nursing technicians in emergency care	Longitudinal/cohort; 71 nursing professionals (57 technicians, 14 nurses)	Absenteeism/sick-leave measure reported by the study	Less favorable practice environment and night work increased absenteeism probability
Nwanosike et al. (2025) [17]	England	Assess associations between nurse staffing configurations and sickness absence in ICUs	Longitudinal retrospective study; five ICUs in three NHS hospital trusts; 6,916 sickness episodes	Electronic rostering/staffing data linked to sickness-absence episodes; staffing exposures assessed over the previous 28 days	Across all periods, +1 SD RN staffing was associated with 5% fewer sickness episodes (IRR 0.95; 95% CI 0.90-0.99); +1 SD senior-nurse hours with 22% fewer episodes (IRR 0.78; 95% CI 0.71-0.86)
Kuusi et al. (2025) [18]	Finland	Assess whether workload predicts subsequent short sickness absence	Register-based cohort study restricted to nurses and practical nurses working in 24/7 Finnish hospital wards (n=1,300); linked daily working-time, staffing, patient-mix and sickness-absence records (2013–2019).	Register-based short self-certified sickness absences (1-3 days), linked with daily working-time and ward workload data	Higher workload on a working day increased the risk of short sickness absence during the following 3 weeks
Dall'Ora et al. (2019) [19]	England	Examine whether long nursing shifts are associated with short- and long-term sickness absence	Retrospective longitudinal observational study; 601,282 shifts worked by 1,944 nursing staff across 32 hospital wards; 8,090 sickness-absence episodes	Absenteeism/sick-leave measure reported by the study	>75% prior shifts ≥12 h: aOR 1.28 for short and 1.22 for long sickness absence

Author / year	Country	Objective	Design / sample	Absenteeism assessment	Main findings
Ropponen et al. (2019) [20]	Finland	Assess associations between working-hour characteristics and short sickness absence using objective roster data	Case-crossover study; 12,156 shift workers and 6,225 day workers overall. Female nurse-specific analyses: 6,741 shift workers and 2,055 day workers (Table A3 study).	Objective payroll-based working-time and sickness-absence records	Female nurses working shifts: ≥4 consecutive nights OR 1.59 (95% CI 1.07–2.37); >25% of weeks >40 h OR 1.28 (95% CI 1.16–1.40); ≥5 quick returns/4 weeks OR 2.04 (95% CI 1.83–2.26).
Emmanuel et al. (2026) [21]	England	Assess associations between adverse working hours and nurses' sickness absence	Retrospective longitudinal study; 7,515 registered nurses across 95 acute hospital wards; approximately 1.4 million e-roster and sickness-absence records	Absenteeism/sick-leave measure reported by the study	Rest <11.5 h OR 1.23; day-night change OR 1.09; ≥3 consecutive shifts OR 1.24
Dall'Ora et al. (2020) [22]	England	Assess night work and subsequent sickness absence using electronic rostering data	Retrospective longitudinal study; 1,944 registered nurses/nursing assistants; 601,282 shifts; 38,051 shifts lost to sickness	Administrative/occupational-health or electronic-roster absence data	>75% prior night shifts aOR 1.12 overall and 1.31 for absence ≥7 days
Vedaa et al. (2019) [23]	Norway	Assess long working hours and subsequent sick leave using registry data	Longitudinal study linking survey and registry data; 1,538 nurses/nursing assistants; shift data and subsequent sick leave followed from 2010 to 2013	Administrative/occupational-health or electronic-roster absence data	More ≥12-h shifts associated with less subsequent sick leave (IRR .946), but interaction with days worked increased leave (IRR 1.002)
Bajan et al. (2025) [24]	Croatia	Examine associations between workplace mobbing, job characteristics, physical manifestations and sick leave among pediatric nursing staff	Cross-sectional/observational; 434 nurses/nursing technicians in pediatric departments across 18 hospitals	Self-reported sick-leave use, days and perceived causes during the previous 2 years	Among 434 pediatric nursing staff, 221 (50.9%) reported no sick leave in the preceding two years. Reported work-related causes of sick leave differed between respondents reporting mobbing and those not reporting mobbing (p=0.01). This is a cross-sectional, self-reported association; causal direction cannot be established.
Garcia et al. (2019) [25]	Brazil	Estimate the cost and workdays lost from nursing sickness absenteeism	Cross-sectional quantitative cost-analysis study; nursing workforce of 752 (203 nurses, 405 technicians, 144 assistants); 362 certificates reviewed; 40 occupational certificates ≥14 days formed the cost-analysis sample	Occupational-health medical certificates and institutional salary/replacement-cost data	1,219 absence days; total estimated cost R$288,615.45; mean R$11,544.62/professional
Shdaifat et al. (2023) [26]	Saudi Arabia	Estimate absenteeism costs and examine working conditions and related factors	Cross-sectional/observational; 306 nurses; stratified random sample	Absenteeism/sick-leave measure reported by the study	Minor illness and overload-related fatigue were prominent; annual productivity loss estimated at US$425,749
Trettene et al. (2020) [27]	Brazil	Measure absenteeism and the Technical Safety Index in a tertiary-hospital nursing team	Descriptive, analytical, retrospective study; 99 nursing professionals (21 nurses, 78 nursing technicians)	Human-resources database; unplanned absences used to calculate absenteeism and Technical Safety Index	Absenteeism 21.5%; Technical Safety Index 42% for nurses and 38% for technicians
Grejo et al. (2022) [28]	Brazil	Describe the etiology and factors associated with nursing-team absenteeism in a tertiary hospital	Cross-sectional/observational; 95 nursing professionals (21 nurses, 72 technicians, 2 assistants)	Administrative/occupational-health or electronic-roster absence data	Mean absenteeism 10.56%; significantly higher in day shift (p=.004); medical leave predominated
Burmeister et al. (2019) [29]	7 countries	Examine individual and organizational determinants of nurse absenteeism and intention to leave across countries	Cross-sectional/observational; 6,203 registered nurses	Self-reported absenteeism/sick leave	Absenteeism varied significantly across countries; multilevel models identified individual/work-environment determinants
Schug et al. (2022) [30]	Germany	Examine sick leave and intention to quit among hospital nursing staff during COVID-19	Cross-sectional/observational; 757 hospital nursing professionals	Self-reported absenteeism/sick leave	32.5% reported ≥10 sick-leave days; COVID-19, prior illness and exhaustion were predictors; reward/staffing were protective
Saber et al. (2021) [31]	Egypt	Assess absenteeism rates and factors/reasons reported by ICU nurses	Descriptive correlational study; all 159 bedside nurses who agreed to participate across five ICUs in one university hospital	Individual absenteeism rate calculated from reported/recorded absence data used in the study	Mean absenteeism 13.57%; transport problems 57% and long distance 45%; job-characteristic correlations were not significant
Ticharwa, Cope & Murray (2019) [32]	Australia	Analyze absenteeism trends and nurse unit managers' perceptions of causes and responses	Mixed methods; retrospective hospital absenteeism records (July 2016-June 2017) across 14 units plus semi-structured interviews with 7 of 9 nurse unit managers	Hospital absenteeism database plus qualitative nurse-unit-manager interviews	Seasonal/daily/demographic patterns identified; managers linked workload with physical/mental-health-related absence
Velásquez Perales, Loli Ponce & Sandoval Vegas (2019) [33]	Peru	Identify factors associated with nurse absenteeism	Cross-sectional/observational; Population 471 nurses; random sample n=72	Administrative/occupational-health or electronic-roster absence data	Rates 3.8% (2016) and 4.2% (2017); personal factors accounted for 74% of reported factors
Grøtting & Øvergård (2023) [34]	Norway	Assess associations between shift-scheduling routines and unit sickness absence	Cross-sectional unit-level study; 126 organizational-unit leaders from hospital units employing nurses working rotating shifts.	Mean unit-level sickness-absence percentage for Jan-Dec 2019, calculated as sickness-absence days / planned workdays; linked with leader survey data	Individual adaptation in shift scheduling was negatively associated with unit-level sickness absence after adjustment; other scheduling dimensions showed no significant overall association. The outcome was aggregated at organizational-unit level, not estimated as individual nurse-specific absenteeism.
Ose et al. (2022) [35]	Norway	Identify perceived causes of work-related sick leave among hospital nurses	Cross-sectional/observational; 1,297 nurses answered the sick-leave question	Self-reported absenteeism/sick leave	27% of latest sick-leave episodes perceived as partly/fully work-related; workload, pace, sleep, infection and low staffing were common causes
Banks & Pearson (2021) [36]	Australia	Examine personality and staff attitudes in relation to absenteeism/presenteeism among hospital nurses	Cross-sectional/observational; 320 nurses; 61% shift workers	Self-reported absenteeism/sick leave	Shift work predicted approximately 2.1 more absence days than day work; personality traits were not significant predictors
Petersen, Wendsche & Melzer (2023) [37]	Germany	Assess emotional exhaustion, psychosocial risks and associations with sick leave by care setting	Cross-sectional/observational; 585 nurses; hospital subgroup n=333	Self-reported absenteeism/sick leave	Emotional exhaustion affected 45.3% of hospital nurses and was associated with >10 sick-leave days/year (OR 2.19)

Author / year	Country	Objective	Design / sample	Absenteeism assessment	Main findings
Sakuraya et al. (2025) [38]	Vietnam and Thailand	Evaluate effects of a smartphone stress-management program on sick leave and related work outcome	Randomized controlled trial; 1,203 full-time nurses randomized	Absenteeism/sick-leave measure reported by the study	Sick leave was lower at 6 months (coefficient -0.21; 95% CI -0.36 to -0.07; PR .81); secondary outcome
Aloğlu & Güllü (2022) [39]	Turkey	Investigate unplanned nurse absenteeism using records and nurse-manager perspectives	Mixed methods; retrospective review of 618 nurse hourly-leave forms from 2019 plus semi-structured interviews with 14 clinical nurse managers	Archived hourly-leave forms/medical reports plus qualitative manager interviews	Child-related problems, personal reasons and illness were frequent; managers emphasized motivation and communication
Sunzi et al. (2026) [40]	China	Explore organizational support experiences among nurses following work-related musculoskeletal disorders, including sick leave and return to work	Qualitative descriptive study; purposive sample of 24 registered nurses from five tertiary hospitals who had experienced a work-related musculoskeletal disorder requiring sick leave or medical intervention within the previous 2 years	Semi-structured interviews exploring sick-leave processes, organizational support and return-to-work experiences	In qualitative interviews with 24 registered nurses who had experienced work-related musculoskeletal disorders requiring sick leave or medical care, participants described fragmented formal organizational support and pressure surrounding return to work. Supportive nurse managers were described as facilitating rest, schedule adjustment and advocacy. No intervention effect on absenteeism was estimated.
Fiorini, Houdmont & Griffiths (2020) [41]	Malta	Compare nurses' illness perceptions during presenteeism and absenteeism	Cross-sectional/observational; 270 ward nurses	Self-reported absenteeism/sick leave	Absence episodes were perceived as more symptomatic, concerning, contagious and legitimate, with lower workability
Ferreira et al. (2022) [42]	Brazil	Identify factors associated with absenteeism among older nursing workers	Cross-sectional study; convenience sample of 233 nursing workers aged ≥60 years from six hospitals	Self-reported days absent using the Work Ability Index absenteeism item, categorized as no absence, few days or many days	Self-reported absenteeism occurred in 34.3% (80/233); after adjustment, working >40 h/week and dissatisfaction with health remained associated with absenteeism
López-Millán et al. (2025) [43]	Spain	Assess changes in sickness absence among hospital healthcare workers across pre-, during- and post-pandemic periods	Retrospective cohort; 7,918 healthcare workers employed for ≥3 months at Hospital del Mar, 2018-2023; occupation-stratified results included nurses and nurse aides	Human-resources records of incident sickness-absence episodes; incidence rates per 1,000 worker-days	Sickness-absence incidence increased across pre-, during- and post-pandemic periods; among nurses, IR increased from 1.63 to 5.14 per 1,000 worker-days in women and from 1.51 to 5.33 in men
Shahjalal et al. (2023) [44]	Bangladesh	Assess workplace-violence-related injury and absenteeism among hospital health workers	Cross-sectional analysis nested within a hospital workplace-violence survey; 468 healthcare workers exposed to workplace violence, including 103 nurses	Self-reported workplace-violence-related absence in the previous 12 months (yes/no)	Overall workplace-violence-related absenteeism was 22.44%; among nurses, 18.45% reported absence. Department-specific adjusted odds were estimated for the full healthcare-worker sample, not nurses separately
Ku, Phillips & Fitzpatrick (2019) [45]	USA	Examine associations of BMI with job performance, absenteeism and eating-disorder risk among hospital nurses	Cross-sectional survey; convenience sample of 63 registered nurses from one community hospital	Self-reported number of sick days taken during the previous year	Mean sick leave was 1.25 days/year; BMI was not associated with absenteeism (r=.03; p=.850)
Strauch, Braun & Short (2020) [46]	USA	Assess whether an automated hand-hygiene compliance system was associated with employee absenteeism	Retrospective quasi-experimental before-after study; emergency-department nurses/technicians; pre-intervention Jan 2015-Jul 2016 and intervention Aug 2016-Dec 2018	Daily sick-call hours from emergency-department records, aggregated to monthly mean sick-call hours	Adjusted mean sick-call time decreased by 4.6 h/month after implementation (95% CI 0.6-8.7; p=.032)
Lima & Barreto (2024) [47]	Brazil	Describe COVID-19-related absence among nursing professionals in intensive care	Quantitative observational survey; 67 ICU nursing professionals (nurses and nursing technicians); prospective data collection stated in Methods (abstract reports retrospective)	Questionnaire-based self-report of work absence in the previous 3 months and whether the absence was due to COVID-19; QWLQ-BR used for work-related quality of life	34.6% reported any work absence in the previous 3 months. All workers reporting absence were nursing technicians (p<.001), but for COVID-19-specific absence the association with professional category was not significant (p=.099); the authors considered evidence insufficient to establish a COVID-19-absenteeism link
Alves et al. (2022) [48]	Brazil	Compare nursing absenteeism before and during COVID-19	Cross-sectional correlational comparative record-review study; 1,097 nursing absence records: Mar-May 2019 (n=622) and Mar-May 2020 (n=475)	Printed institutional nursing-absence records; type/reason, days and hours lost; absenteeism rate calculated from hours absent/hours worked	Sickness absence was the most frequent category in both periods (48.4% of absence records in 2019 vs 48.0% in 2020). Although the number of absence records decreased (622 to 475), mean absence duration increased (4.2 to 5.6 days; 25.1 to 33.4 hours), as did the mean reported absenteeism-rate measure (13.9% to 18.6%); between-period comparisons p<.001 (original article, Table 2). These are absence records, not numbers of individual nurses.
Popa et al. (2025) [49]	Romania	Assess pandemic-related changes in musculoskeletal-disorder absenteeism among pediatric healthcare workers	Retrospective observational record-based study; 3,388 MSD-related sick-leave episodes among pediatric-hospital healthcare workers, 2017-2023; occupation-stratified results	Electronic medical-record and occupational-health sick-leave data; ICD-10 MSD diagnoses; calendar and working days of leave	The analysis comprised 3,388 musculoskeletal-disorder sick-leave episodes, not 3,388 individual workers. Nurses accounted for 1,582 episodes (46.7% of episodes across occupational groups; p=.025 for occupational distribution). This proportion is not a nurse-specific incidence or absenteeism rate.
Adisesh et al. (2023) [50]	Canada	Identify determinants of sickness-absence duration after mild COVID-19 among healthcare workers	Prospective cohort; baseline n=4,964 healthcare workers; analytic sample 1,520 mild COVID-19 episodes in 1,454 workers, including 971 registered nurses (66.8%)	Self-reported working days away from work after a positive COVID-19 test; analysis restricted to completed episodes with <=31 working days absent and no hospital admission	For RN episodes (n=1,016), median absence was 5 days and mean 7.47 days; duration did not differ significantly from physicians (HR .97, 95% CI 0.87-1.08; p=.599). Across all HCWs, absence shortened later in the pandemic, with more vaccine doses and where callback provisions existed

Author / year	Country	Objective	Design / sample	Absenteeism assessment	Main findings
Chrissian et al. (2022) [51]	USA	Assess vaccine-related side effects, work absence and future booster intention among healthcare workers	Cross-sectional online survey; 2,103 vaccinated healthcare workers from two hospital systems; 683 nurses (32.5%)	Self-reported vaccine side-effect-related work disruption and work absence within 5 days after vaccination; days missed recorded	Overall, 18.1% missed work; 20.2% of nurses versus 6.7% of physicians. Adjusted odds of absence were higher for nurses than physicians (OR 3.38, 95% CI 2.18-5.41; p<.001). Planned versus unplanned absence was not distinguished
Dolić et al. (2022) [52]	Croatia	Compare pandemic experiences and factors associated with sickness absence in COVID-19 vs non-COVID-19 nursing departments	Historical prospective survey study; 380 nurses (217 COVID-19 and 163 non-COVID-19) from 1,305 eligible nurses; long-term sickness absence and incomplete forms excluded	Self-reported sickness-absence use since the pandemic onset via online questionnaire; psychological, personality, coping and occupational-stressor measures	Sick-leave users differed in pandemic experiences, coping/personality and work stressors; discriminant models correctly classified 84.8% of COVID-unit and 79.1% of non-COVID-unit nurses. Associations do not establish causality
de Wet, Kruger & Joubert (2022) [53]	South Africa	Assess associations between obesity and sickness absenteeism among hospital workers, including nursing staff	Analytical cohort study; 344 full-time workers (199 nursing staff, 145 administrative staff); 68.5% participation; baseline BMI at employment and repeat BMI in 2016	Hospital leave-register/database data: total sick-leave days and incidents since employment, standardized per year	Nursing staff had a median 4.3 sick-leave days/year (IQR 2.3–8.2) and 1.7 episodes/year (IQR 0.9–2.7). Sick-leave days did not differ across BMI categories (p=.960); the same null pattern was observed in nursing-specific analyses
Suárez-Egoávil (2021) [54]	Peru	Describe occupational disease and work absenteeism among police hospital health workers, including nursing staff	Retrospective descriptive cross-sectional record review; convenience sample of occupational-disease medical-leave cases (abstract n=79; Methods reports n=123 from 744 police health workers; internal sample-size inconsistency)	Personnel-record data on days absent, medical cause and work accidents; hospital-wide absenteeism indicators for 2017–2018	Among occupational-disease absence cases, nurses accounted for 18.75% (2017) and 19.56% (2018), and nursing technicians for 50.0% and 52.17%, respectively. Overall hospital absenteeism rates were 7.56% (2017) and 6.39% (2018); these were not nursing-specific absenteeism rates.
Najafi et al. (2021) [55]	Iran	Describe COVID-19/corona-like sickness absence among hospital staff supervised by nursing management, with nursing occupational categories reported separately	Cross-sectional retrospective record review; 1,700 staff under nursing-department supervision; 304 COVID-19/corona-like sick-leave cases (26 Feb–19 Apr 2020)	Nursing-management records and registered medical certificates; sick-leave days, job category, work unit, exposure and symptoms	Of 1,700 staff supervised by the nursing department, 304 (17.8%) recorded COVID-19/corona-like sick leave. Of these 304 cases, 221 were nurses (72.7%); 72.7% is the occupational share of cases, not the percentage of nurses who took sick leave.
Kantorski et al. (2021) [56]	Brazil	Assess suspected COVID-19 infection, work absence and testing among nursing professionals	Cross-sectional online survey; 890 nursing professionals (319 nurses, 501 nursing technicians, 70 nursing assistants); 75% response; 577 (65%) hospital-based	Self-reported yes/no work absence due to suspected or diagnosed COVID-19	Among 577 hospital-based nursing professionals, 17.6% reported COVID-19-related work absence. Overall absence was 16.2% in the full multiservice nursing sample (n=890); the adjusted association with moderate social distancing (RR 1.49; 95% CI 1.00–2.21) was estimated for the full sample, not the hospital subgroup.
Kowalczuk et al. (2020) [57]	Poland	Examine excessive work and burnout in relation to sick-leave frequency among hospital nurses	Cross-sectional analytical study; 460 registered nurses from three inpatient hospitals; 600 questionnaires distributed, 77% response	Self-reported number of sick-leave episodes during the previous year, categorized as none, 1–2, or ≥3; burnout measured with MBI and excessive working with WEQ	47.4% reported no sick leave, 38.0% 1–2 episodes and 14.6% ≥3. In logistic regression, each 1-point increase in overall burnout was associated with higher odds of ≥3 sick leaves/year (OR 1.029, 95% CI 1.017–1.041); age was also associated (OR 1.051/year). WEQ measures were not independent predictors
Hajo et al. (2020) [58]	Canada	Assess whether combinations of sleep, physical activity and sedentary time are associated with absenteeism, mood states and shift-work disorder among nurses	Secondary analysis of the cross-sectional Champlain Nurses' Study; 342 nurses from 14 hospitals with valid movement/sleep data; 293 had complete absenteeism data	WHO Health and Work Performance Questionnaire short form; 4-week relative absenteeism based on expected versus actually worked hours; physical activity and sedentary time measured by accelerometry and sleep by daily logs	No significant differences in relative absenteeism across the four combined movement/sleep behaviour groups (p=.533), nor by physical activity (p=.196), sedentary time (p=.836) or optimal vs non-optimal sleep (p=.335)
Rocha, Saito & Pinto (2019) [59]	Brazil	Characterize sickness absenteeism among nursing and medical staff in a large public hospital from 2011 to 2013	Descriptive cross-sectional study with retrospective administrative data; hospital population approximately 1,400/year; analyses focused on nursing assistants, nurses and physicians; 3,323 sick-leave episodes involving 1,533 workers	Occupational-health/SESMT records of absences >1 day, professional category, work sector, days absent and ICD-10 cause; sick-leave frequency, worker frequency and mean duration indicators calculated	Across the hospital, 71,460 days were lost. Nursing assistants were the most affected category; the adult emergency department had the greatest absence burden, including 11,460 days among nursing assistants. Musculoskeletal and mental/behavioural disorders predominated. Mean absence duration increased from 13.42 days in 2011 to 44.52 days in 2013

Abbreviations: aOR, adjusted odds ratio; BMI, body mass index; CI, confidence interval; HR, hazard ratio; ICU, intensive care unit; ICD-10, International Classification of Diseases, 10th Revision; IQR, interquartile range; IR, incidence rate; IRR, incidence rate ratio; MBI, Maslach Burnout Inventory; NHS, National Health Service; OR, odds ratio; PES-NWI, Practice Environment Scale of the Nursing Work Index; PR, prevalence ratio; QWLQ-BR, Quality of Nursing Work Life Questionnaire – Brazilian version; RN, registered nurse; RR, risk ratio; SD, standard deviation; SESMT, Specialized Service in Safety Engineering and Occupational Medicine; SWD, shift-work disorder; WEQ, Work Excessively Questionnaire; WHO, World Health Organization.

Analysis of the results of the selected studies

Findings were synthesized into three analytical categories: factors associated with absenteeism, consequences of absenteeism, and prevention and management strategies. Factors were further grouped into individual or health-related and organizational or work-related domains. Table 3 summarizes the principal findings and the nature of the supporting evidence.

The overall evidence profile was uneven across these categories. Evidence on associated factors was the most extensive and drew on both self-reported and administrative measures, whereas consequences were evaluated in a smaller group of studies and were most often expressed as lost working time, costs, productivity effects, or staffing requirements. Evidence addressing prevention and management was broader in terms of proposed actions than in terms of tested effectiveness: many studies supported management priorities through observed associations or participant and author recommendations, while only a small number evaluated an intervention with absenteeism as an outcome.[15,17,18,25-28,31-40,46]

The strength of evidence also differed by exposure. Working-time, workload, and staffing relationships were supported by several longitudinal, registry-based, case-crossover, or electronic-roster studies, providing stronger temporal information than the predominantly cross-sectional evidence available for many psychosocial and individual factors.[17-23] Findings concerning practice environment, leadership, workplace support, and work-family conditions were consistent with organizational relevance but were derived largely from observational, mixed-methods, or qualitative designs.[4,14-16,24,31,32,36,39,40] Accordingly, the synthesis emphasizes convergence across studies while preserving differences in design and measurement rather than treating all associations as equivalent evidence.

Across the review, the clearest directly quantified consequences concerned organizational resource use. By contrast, continuity of care, quality, patient safety, and the workload transferred to colleagues were less consistently measured as outcomes. This imbalance is relevant when interpreting management recommendations: some consequences commonly attributed to absenteeism remain plausible organizational concerns but are less directly demonstrated in the included evidence than lost days, costs, productivity loss, and staffing pressure.[25-30]

Table 3. Synthesis of findings on nursing absenteeism. Management relevance denotes implications supported by associations, qualitative evidence or author/participant recommendations unless intervention effectiveness is explicitly stated.

Synthesis category	Subcategory / area	Main findings	Supporting studies	Management relevance / evidence nature (not effectiveness unless stated)
Factors associated with absenteeism	Individual/health: Physical fatigue	Physical fatigue associated with absenteeism: OR 1.054 (95% CI 1.003-1.109)	9	Potential management relevance: fatigue prevention, workload review and occupational-health follow-up
	Individual/health: Musculoskeletal disease	Musculoskeletal disease strongly associated with absence ≥15 days: OR 8.95 (95% CI 5.30-15.11)	10	Potential management relevance: ergonomic prevention, early occupational-health assessment and return-to-work support
	Individual/health: Shift-work disorder/depression	Depression and years of shift work explained 18.9% of sick-leave variance; high-risk SWD difference was not statistically significant (p=.057)	11	Potential management relevance: screening of sleep/mental-health risk and review of cumulative shift exposure
	Individual/health: Burnout	High burnout prevalence, but no significant adjusted association with overall absenteeism (aOR 1.386; p=.412)	12	Burnout should not be used alone as a proxy for absenteeism; psychosocial work conditions remain relevant management targets
	Individual/health: Workplace stress	Stress correlated with unauthorized absence (r=.79; p=.03), but not with total, sick or emergency leave	13	Potential management relevance: modifiable stressors, while distinguishing unauthorized absence from sickness absence
	Individual/health: Family caregiving	Elder care aOR 4.43; no childcare help aOR 4.23 for involuntary absenteeism	14	Potential management relevance: work-family flexibility, childcare/eldercare needs and shift exchange where feasible
	Organizational/work: Practice environment	Each 1-point increase in PES-NWI associated with 40% lower absenteeism incidence (IRR .60; p=.01)	15	Potential management relevance: nursing practice environment, local support and work organization
	Organizational/work: Practice environment/night work	A less favorable practice environment and night work were associated with a higher probability of absenteeism	16	Potential management relevance: practice-environment improvement and safer night-work scheduling
	Organizational/work: RN staffing/skill mix	+1 SD RN staffing associated with 5% fewer sickness-absence episodes (IRR .95); senior-nurse hours with 22% fewer episodes (IRR .78)	17	Potential management relevance: adequate RN staffing and appropriate skill mix
	Organizational/work: Workload	Higher daily workload was associated with a higher risk of short sickness absence in subsequent weeks	18	Potential management relevance: staffing/workload alignment and monitoring of high-workload periods
	Organizational/work: Long shifts	>75% prior shifts ≥12 h: aOR 1.28 for short and 1.22 for long sickness absence	19	Potential management relevance: cumulative long-shift exposure rather than a single shift-length rule
	Organizational/work: Night shifts/quick returns	Female nurses on shift-work contracts: ≥4 consecutive night shifts OR 1.59 (95% CI 1.07–2.37); >25% of weeks >40 h OR 1.28 (95% CI 1.16–1.40); ≥5 quick returns per 4 weeks OR 2.04 (95% CI 1.83–2.26).	20	Potential management relevance: excessive night sequences, quick returns and protected recovery time
	Organizational/work: Short recovery/adverse sequences	Rest <11.5 h OR 1.23; day-night change OR 1.09; ≥3 consecutive shifts OR 1.24	21	Potential management relevance: inter-shift recovery and avoidance of adverse shift sequences
	Organizational/work: Night work	>75% prior night shifts aOR 1.12 overall and 1.31 for absence >=7 days	22	Potential management relevance: cumulative night-work exposure and long sickness-absence risk
	Organizational/work: Long shifts - divergent finding	More ≥12-h shifts were associated with less subsequent sick leave (IRR .946), but the interaction with more days worked was associated with greater sick leave (IRR 1.002); healthy-worker/selection effects are possible	23	Interpretation should remain cautious because worker selection/healthy-worker effects and total days worked may modify the association
	Organizational/work: Workplace mobbing	Work-related sick leave differed by mobbing group (p=.01); cross-sectional, self-reported and unadjusted	24	Potential management relevance: anti-bullying policies, reporting pathways and manager response; effectiveness was not tested
Consequences	Costs and lost workdays	1,219 absence days; total estimated cost R$288,615.45 and mean R$11,544.62 per professional	25	Directly quantified
	Productivity/financial loss	Estimated annual productivity loss approximately US$425,749	26	Directly quantified
	Staffing/coverage requirement	Absenteeism 21.5%; Technical Safety Index 42% for nurses and 38% for nursing technicians	27	Direct indicator for staffing coverage
	Staffing/coverage pressure	Mean absenteeism 10.56%; higher during day shift; medical leave was the main reason	28	Organizational indicator; quality/safety effects discussed, not directly measured
	Workforce instability	Absenteeism and intention to leave were examined together across countries	29	Associated/indirect; no causal direction established
	Workforce instability	32.5% reported ≥10 sick-leave days; 18.9% reported intention to leave (distinct descriptive outcomes)	30	Associated/indirect; no causal direction established

Synthesis category	Subcategory / area	Main findings	Supporting studies	Management relevance / evidence nature (not effectiveness unless stated)
Management prevention	Monitoring, workforce planning and staffing	Systematic monitoring of absence patterns; use of local rates/causes in workforce planning; adequate RN staffing/skill mix; response to workload variation	4,17,18,26,27,28, 29,32,33	Primarily observational, descriptive and qualitative evidence; recommendations not generally intervention-tested
	Scheduling, working time and recovery	Schedule adjustment/autonomy; reduction of adverse shift sequences, short recovery and excessive night/long-shift exposure; consideration of cumulative hours and worker selection	11,13,16,21,22,23,34,35, 36	Observational associations; one divergent long-shift result argues against a single shift-length rule
	Occupational health and well-being	Musculoskeletal/ergonomic prevention, sleep and mental-health support, stress management, occupational-health support and employee assistance	4,11,13,26,30,32, 35,37	Mostly observational/qualitative implications
	Leadership, environment, participation and recognition	Supportive leadership, communication, consultation, recognition, motivation, adequate resources and healthier practice environments	4,13,15,16,22,26, 32,36,37,39	Observational, mixed-methods and qualitative evidence; not proof of intervention effectiveness
	Work-family reconciliation and social support	Flexible scheduling/shift exchange, supervisor support and support for childcare/eldercare responsibilities	4,14,32,33,35,39	Associational and experiential evidence; strategies proposed rather than tested
	Structured return to work	Organizational support and return-to-work experiences following musculoskeletal disorders; effectiveness not evaluated	40	Qualitative evidence; proposed practices, not tested for effectiveness
	Smartphone stress-management program	In the randomized trial, the smartphone stress-management group had lower sick leave at 6 months (coefficient -0.21; 95% CI -0.36 to -0.07; PR .81); sick leave was a secondary outcome	38	Randomized controlled trial; sick leave was a secondary outcome
	Automated hand-hygiene compliance system	Following implementation, adjusted mean sick-call hours were 4.6 hours/month lower (p=.032)	46	Quasi-experimental/context-specific complementary evidence

Abbreviations: aOR, adjusted odds ratio; CI, confidence interval; IRR, incidence rate ratio; OR, odds ratio; PES-NWI, Practice Environment Scale of the Nursing Work Index; RN, registered nurse.

Factors associated with absenteeism

Physical and health-related factors were recurrent. Physical fatigue was associated with absenteeism in Chilean assistant nurses,[9] and musculoskeletal disease was strongly associated with prolonged absence of at least 15 days in an emergency hospital service (OR, 8.95; 95% CI, 5.30–15.11).[10] Shift-work-related sleep problems and depression were examined in relation to sickness absence patterns,[11] whereas adjusted associations for burnout or overall workplace stress were not consistently significant.[12,13] In one teaching-hospital study, caring for an older person and lack of childcare assistance were each associated with approximately fourfold higher odds of involuntary absence.[14]

Organizational and working-time factors were also prominent. More favorable practice environments were associated with lower absenteeism,[15,16] higher registered-nurse staffing with fewer sickness-absence episodes,[17] and higher workload with subsequent short sickness absence.[18] Long shifts, night work, quick returns, short inter-shift recovery, and adverse shift sequences were associated with sickness absence in several studies.[19-22] Findings were not fully concordant: a Norwegian registry study found an inverse association between greater exposure to shifts of at least 12 hours and subsequent sick leave, with possible healthy-worker or selection effects.[23]

Psychosocial and organizational-support findings were less extensive but were consistent with the broader organizational pattern. Workplace mobbing was associated with reporting work as a cause of sick leave in croatian pediatric departments (P=.01), although the analysis was cross-sectional, self-reported, and unadjusted.[24] A qualitative study of Chinese nurses with work-related musculoskeletal disorders described inconsistent formal support, staffing pressure, nurse-manager advocacy, and schedule adaptation during sickness absence and return to work.[40]

Consequences of absenteeism

Consequences were measured less frequently than determinants. Directly quantified outcomes included 1,219 absence days and R$288,615.45 in costs in one Brazilian institution,[25] and an estimated annual productivity loss of approximately US$425,749 in another hospital study.[26] Staffing and coverage requirements were also documented: Technical Safety Index estimates reached 42% for nurses and 38% for nursing technicians in one tertiary hospital.[27,28] Absenteeism co-occurred with indicators of workforce instability, including intention to leave, but observational studies did not establish causal direction.[17,29,30] Effects on continuity, quality, and patient safety were more often discussed than directly measured.

Prevention and management strategies

Management and prevention evidence was dominated by observational, descriptive, mixed-methods, and qualitative studies. Frequently reported priorities included monitoring absence patterns, workforce planning, adequate staffing, and workload management[4,17,18,26-28,31-33]; safer scheduling and recovery, including attention to night work, quick returns, cumulative hours, and roster adjustment[11,13,16,21-23,34-36]; and occupational-health measures addressing musculoskeletal risk, ergonomics, sleep, and mental health.[4,11,13,26,30,32,35,37]

Leadership, communication, participation, recognition, and supportive practice environments were recurrent themes.[4,13,15,16,24,26,31,32,36,37,39] Qualitative and mixed-methods studies emphasized consultation with staff and nurse-manager support,[4,32,39] while return-to-work evidence highlighted schedule adaptation, ergonomic support, advocacy, and clearer organizational pathways after musculoskeletal injury.[40] Work-family flexibility was also relevant when caregiving responsibilities contributed to absence.[14,33]

Intervention evidence was limited. In a randomized trial conducted in Vietnam and Thailand, a smartphone-based stress-management program was associated with lower

sick leave at six months (coefficient, -0.21; 95% CI, -0.36 to -0.07; prevalence ratio, 0.81), although sick leave was a secondary outcome.[38] A context-specific quasi-experimental study also reported a reduction in sick-call hours after implementation of an automated hand-hygiene compliance system.[46] Overall, most proposed management strategies had not been tested specifically as absenteeism-reduction interventions.

Methodological quality of the included studies

Critical appraisal using design-appropriate JBI tools identified recurring methodological strengths and limitations across study designs rather than a uniform level of quality. Cross-sectional, descriptive, and retrospective observational studies frequently relied on self-reported exposures and/or absenteeism measures and often provided limited temporal ordering or adjustment for confounding. In contrast, several cohort and registry-based studies used administrative, payroll, or electronic-roster data, strengthening temporal assessment of working-time, workload, and staffing exposures, although residual confounding and exposure classification remained relevant. The croatian cross-sectional study on mobbing was retained with caution because sickness absence and mobbing were self-reported and the relevant association was not adjusted for confounding. The single case-crossover study used objective working-time and sickness-absence data and strengthened within-person temporal comparison, but its design required separate appraisal rather than treatment as an ordinary cross-sectional study. The 2026 Chinese qualitative study demonstrated coherent sampling, transparent thematic analysis, and participant validation. No numerical quality cutoff was used to exclude studies.

The appraisal was used to qualify interpretation rather than to generate a pooled quality score. Mixed-methods studies were assessed by component using the relevant JBI tools, and all 52 studies meeting the eligibility criteria remained in the synthesis. Table 4 therefore summarizes the appraisal framework and recurring design-specific patterns rather than reproducing study-level checklist judgments in the main text.

Table 4. Methodological appraisal framework and main appraisal patterns.

Design group	Included studies	JBI appraisal approach	Main appraisal pattern
Cross-sectional / descriptive / retrospective observational	n=35	Primarily JBI Analytical Cross Sectional Studies Checklist; descriptive or record-based studies interpreted using design-appropriate domains	Self-report of exposure and/or absenteeism was frequent. Temporal ordering, selection and residual confounding were common limitations; record-based studies improved outcome ascertainment but not necessarily causal inference
Case-crossover	n=1	JBI case-control appraisal domains adapted to the within-person case-crossover structure	Objective payroll/working-time and sickness-absence data supported temporal comparison within individuals. Interpretation still depended on appropriate control windows and control of time-varying exposures/confounding
Longitudinal / cohort / registry-based	n=10	JBI Cohort Studies Checklist or design-appropriate longitudinal appraisal	Administrative, roster or registry data strengthened temporality and outcome ascertainment. Residual confounding, exposure classification, selection and missing data remained relevant
Mixed methods	n=2	Quantitative and qualitative components appraised separately with the corresponding JBI tools	Interpretation considered the strengths and limitations of each component rather than assigning one generic mixed-method score
Randomized controlled trial	n=1	JBI Randomized Controlled Trials Checklist	Strongest intervention design in the review; sick leave was a secondary outcome, limiting certainty for absenteeism-specific effectiveness
Quasi-experimental	n=1	JBI Quasi-Experimental Studies Checklist	Intervention evidence was context-specific and remained vulnerable to secular trends and uncontrolled organizational influences
Qualitative	n=2	JBI Qualitative Research Checklist	Useful for organizational mechanisms, support and return-to-work experience; findings inform context, feasibility and acceptability rather than effect size

Discussion

Principal findings

This integrative review shows that hospital nursing absenteeism cannot be adequately explained by any single individual factor. The evidence converges on an interaction among health, working-time organization, workload, staffing, the practice environment, and family responsibilities.[9-11,14,15,17-19,21,24] For nursing management, the central implication is that absenteeism should be interpreted as a workforce and organizational signal rather than solely as an attendance problem. Demanding schedules, insufficient recovery, high workload, and unfavorable work environments may coexist with poorer health and sickness absence, while absence itself reduces available staffing and may intensify pressure on the remaining team. This reinforcing pattern represents an interpretation of the combined evidence, not a causal pathway demonstrated by any single study.

A further implication of this multidimensional pattern is that the same observed absence rate may represent different underlying problems in different units. A service in which short, recurrent absences cluster around demanding roster sequences is not necessarily facing the same management problem as a service characterized by prolonged musculoskeletal absence or by absence associated with caregiving responsibilities. Aggregating these patterns into one percentage can obscure potentially actionable differences. The synthesis therefore favors a diagnostic interpretation of absenteeism in which frequency, duration, recurrence, timing, reason, professional group, and unit context are considered together before a management response is selected.[10,14,19-23,28,31-33]

Physical and psychological health

The health-related evidence argues against reducing absenteeism to motivation or individual commitment. Musculoskeletal disorders were particularly relevant to prolonged absence,[10,40,49] making ergonomic exposure, manual handling, functional capacity, and timely occupational-health follow-up legitimate management concerns. Psychological findings were more heterogeneous: fatigue, disturbed sleep, stress, burnout, emotional exhaustion, and shift-work disorder were repeatedly examined, but adjusted associations were not uniform.[9,11-13,37,57] Managers should therefore avoid using burnout or stress scores as proxies for expected absence. A more defensible approach is to combine health surveillance with workload, roster, and work-environment information and to target the specific conditions present in each unit.

The contrast between physical and psychological findings also illustrates why risk-factor identification should not be translated mechanically into individual screening. Musculoskeletal conditions showed some of the strongest associations with prolonged absence, whereas findings for burnout, stress, sleep disturbance, and related psychological indicators varied according to outcome definition and analytical adjustment.[9-13,37,49,57] From a management perspective, this favors prevention at the level of work design and occupational health as well as individual support. Ergonomic risk reduction, access to early assessment, sleep and recovery protection, and mental-health support are most defensible when integrated with workload and roster review rather than used as isolated programs intended to identify workers presumed likely to be absent. Such an approach also reduces the risk of interpreting a workforce outcome primarily as an individual vulnerability.

Working time, recovery and staffing

Working-time organization generated some of the most managerially actionable evidence because several studies used longitudinal, registry, or electronic-roster data.19-22 The findings do not support a universal rule that any particular shift length is intrinsically harmful: although long shifts, night work, quick returns, short recovery, and adverse sequences were associated with sickness absence, one norwegian registry study found an inverse association with greater exposure to shifts of at least 12 hours.23 The practical implication is therefore to manage the roster as a system - considering cumulative hours, consecutive shifts, nights, quick returns, rotation, and recovery - rather than regulating one characteristic in isolation. Findings on workload and RN staffing reinforce this interpretation: higher workload preceded greater short sickness absence, whereas higher RN staffing was associated with fewer absence episodes.[17,18]

The apparently divergent findings for long shifts are especially informative. They suggest that shift duration cannot be interpreted independently of how schedules are constructed, who selects or tolerates particular patterns, cumulative weekly hours, night work, quick returns, and the opportunity for recovery. In observational roster studies, these characteristics may also be influenced by selection effects, including a possible healthy-worker effect: nurses who are able or willing to remain in demanding working-time arrangements may differ systematically from those who avoid or leave such schedules, potentially attenuating the observed association between long-shift exposure and sickness absence. The practical lesson for nurse leaders is not to designate a single shift length as universally safe or unsafe, but rather to evaluate complex combinations of work exposures (e.g., consecutive 12-hour shifts combined with quick returns) and their local association with absence. Electronic scheduling and payroll systems create an opportunity for this type of surveillance because roster characteristics can be linked prospectively with objectively recorded absence while preserving unit-level context.[17-23]

Practice environment, leadership and work-family conditions

The practice environment and organizational culture are important because they represent modifiable managerial conditions rather than fixed worker characteristics. More favorable environments were associated with lower absence, while qualitative and mixed-methods evidence repeatedly emphasized communication, consultation, recognition, and managerial support.[4,15,16,31,32,36,39] Workplace mobbing further illustrates this relationship, although its association with sick leave was cross-sectional and unadjusted.[24] The qualitative return-to-work study adds an operational dimension: nurse-manager advocacy, schedule adaptation, and colleague support may shape how nurses experience absence and return to work, while unclear formal pathways and staffing pressure may complicate the process.[40] For managers, these findings support formalized support and return-to-work processes while underscoring that their effectiveness still requires evaluation.

These findings also point to a distinction between prevention, absence management, and return to work. Primary prevention acts before absence occurs by addressing workload, staffing, scheduling, ergonomics, psychosocial conditions, and work-family compatibility. Absence management concerns the organizational response once absence occurs, including accurate recording, appropriate communication, occupational-health referral, and planning for safe coverage. Return-to-work management begins before the employee resumes full duties and may require adapted schedules, ergonomic adjustments, manager advocacy, and coordination with occupational-health services. The qualitative evidence indicates that unclear pathways and staffing pressure can complicate this transition, while supportive management and schedule adaptation may facilitate it; however, these findings establish experience and plausibility rather than intervention effectiveness.[4,14,24,31-33,39,40]

Consequences and management implications

The evidence on consequences strengthens the case for treating absenteeism as a management indicator, but not

as an isolated performance target. Lost workdays, financial and productivity costs, and additional staffing requirements were directly demonstrated,[25-28] whereas effects on team workload, continuity, quality, and patient safety were less consistently measured. A useful management dashboard should therefore go beyond a single absence percentage and distinguish professional category, unit, duration, recurrence, reason, and temporal pattern, interpreted alongside staffing, workload, overtime, roster characteristics, and psychosocial indicators.[28,31-33] From an operational perspective, these dimensions could be combined in local dashboards to identify recurrent short-absence patterns, prolonged episodes, clustering after demanding roster sequences, and changes in cause-specific absence. Rather than applying universal thresholds, alert criteria should be locally defined from longitudinal organizational data and prospectively evaluated. Such dashboards should support managerial decision-making rather than function as isolated performance targets. This reframes the managerial question from "How high is absenteeism?" to "What pattern is occurring, where, and under which working conditions?"

An important evidence gap concerns the economic evaluation of nursing absenteeism. The included studies provided more direct evidence of lost working time, financial and productivity costs, and additional staffing or coverage requirements, whereas broader indirect consequences were less consistently quantified. Potential downstream effects related to overtime burden, workload redistribution, continuity of care, and quality or safety outcomes therefore remain insufficiently characterized rather than established consequences of absenteeism. Future studies should adopt more comprehensive economic-evaluation frameworks that distinguish direct from indirect costs and examine these wider organizational and care-related outcomes alongside absence measures.

This distinction also has implications for how management interventions should be evaluated. The included studies did not provide sufficient comparative evidence to determine whether attempts to reduce absence could be accompanied by unintended effects such as presenteeism, greater overtime, or workload redistribution. These outcomes should therefore not be presented as established consequences of absenteeism, but they are important measures for future evaluations of management interventions. A successful absenteeism strategy should therefore demonstrate not only fewer absence episodes or days but also acceptable effects on staff health, workload, retention, costs, and care delivery.[15,25-30]

From identifying risk factors to knowing what works

The most important evidence gap lies between identifying modifiable factors and determining which interventions actually reduce absence. Although several of the 36 core studies generated management implications, most were observational or qualitative. The randomized smartphone stress-management trial provides experimental evidence of lower sick leave at six months, but sick leave was a secondary outcome and the intervention was evaluated in a specific multinational context.[38] The qualitative return-to-work evidence supports the plausibility and acceptability of structured organizational support but cannot establish effectiveness.[40] Consequently, the current evidence is stronger for identifying managerial targets than for prescribing a standardized absenteeism-reduction package.

For local implementation, nurse managers could define baseline and prespecified indicators (for example, absence episodes and days per eligible working time) and evaluate staffing, overtime, presenteeism, staff well-being, and patient-care indicators alongside an intervention. This is an evaluation proposal, not a claim of proven effectiveness.

This evidence hierarchy has practical consequences. Observational associations can identify where managers should look, but they cannot determine whether changing the associated factor will necessarily reduce absence. Likewise, strategies described by nurse managers or participants provide valuable information about feasibility and perceived relevance, but they do not provide an effect estimate. The small intervention evidence base means that multicomponent programs should be implemented with explicit local evaluation rather than presented as universally proven solutions. Where feasible, organizations could define baseline absenteeism patterns, specify the intervention and target population, prespecify absence outcomes, and examine change alongside staffing, overtime, health, and workforce indicators. This would allow routine management initiatives to contribute more informative practice-based evidence.[4,31,32,38-40,46]

Operational research approaches, including scenario-based staffing models, roster optimization and evaluation of replacement coverage, may help translate these findings into locally testable management strategies. A recent review of nurse-rostering optimization describes mathematical programming, metaheuristic and hybrid approaches to staffing and scheduling constraints.[60] Their effectiveness in reducing absenteeism should not be assumed without prospective evaluation.

Measurement heterogeneity and pandemic context

Interpretation is further constrained by substantial outcome heterogeneity. Studies variously measured sickness absence, sick leave, emergency leave, unauthorized absence, involuntary absence, short- or long-duration episodes, and composite indicators. Administrative and electronic-roster data reduce recall bias but remain dependent on local definitions and policies; self-report introduces additional recall and reporting error. Crude percentages should therefore not be compared across institutions without considering the denominator, recall period, eligibility rules, and employment context. COVID-19 studies contributed evidence on infection, isolation, vaccination, and exceptional staffing pressure,[43,47-52,55,56] but pandemic-specific policies limit transferability to routine operations. These findings are best interpreted within the relevant

health, staffing, or organizational domains rather than as a separate model of absenteeism.

Two recent studies illustrate why study design must guide interpretation. Bajan et al.[24] reported an association between workplace mobbing and self-reported work-related sick leave, but its cross-sectional design does not establish causality. Sunzi et al.[40] explored nurses' experiences of organizational support after musculoskeletal disorders; its qualitative findings inform potential return-to-work practices but do not demonstrate reductions in absenteeism.

Standardization would therefore improve both research comparability and managerial usefulness. At minimum, studies and organizational dashboards should state the numerator and denominator, observation period, whether absence is self-reported or administratively recorded, whether episodes or days are counted, whether planned and unplanned absence are distinguished, and whether causes or duration categories are available. Reporting recurrence separately from total days is also important because repeated short absences and a small number of long episodes may produce similar aggregate rates but imply different occupational-health and staffing responses. The evidence suggests that short and recurrent absence may warrant particular attention to proximal and potentially modifiable working conditions, including workload, working-time arrangements, recovery opportunities, sleep, and work-family demands, whereas prolonged absence may require greater occupational-health involvement, particularly when associated with musculoskeletal or other health conditions.9-14,18-22,40 Accordingly, management responses should be informed not only by aggregate absence rates but also by local patterns of frequency, duration, recurrence, and reason, ranging from scheduling and workload adjustments to ergonomic support, functional adaptation, and structured return-to-work pathways. Greater consistency would make benchmarking more defensible without assuming that rates from different employment systems are directly interchangeable.

Strengths and limitations

This integrative review has several strengths. It synthesizes 52 primary studies across quantitative, qualitative and mixed-methods designs, drawing on a geographically diverse evidence base and a documented search, selection and extraction process. Design-appropriate Joanna Briggs Institute critical appraisal and a structured audit trail informed interpretation. Separating associated factors, directly measured consequences and management strategies—and distinguishing evaluated interventions from observational or qualitative implications—reduced the risk of overstating causal conclusions.[6-8]

Several limitations should be acknowledged. First, no protocol was prospectively registered. Although a previous review conducted in 2025 documented an initial search and eligibility criteria, it was not a prospectively registered protocol for the expanded review. Therefore, the temporal status of some methodological decisions cannot be independently established, and post hoc decision-making cannot be ruled out.

Second, the search was limited to MEDLINE via PubMed, CINAHL Ultimate via EBSCOhost and Scopus, and to publications in English, Portuguese or Spanish. Two reports could not be retrieved. These restrictions may have led to the omission of relevant evidence and limit the comprehensiveness of the synthesis.

Third, study designs, definitions of absenteeism, data sources, denominators and follow-up periods were heterogeneous, limiting direct comparisons and precluding a meaningful meta-analysis or formal statistical quantification of between-study heterogeneity. Most evidence was observational, restricting causal interpretation. JBI tools were used to assess limitations within individual studies, but no formal outcome-level certainty assessment such as GRADE or GRADE-CERQual was conducted.

Fourth, publication bias and selective outcome reporting could not be formally assessed because the review did not yield a sufficiently comparable set of effect estimates. Unpublished null findings and studies treating absenteeism as a secondary or incompletely specified outcome may be underrepresented.

Finally, the categorization of 36 core and 16 complementary studies was interpretive and was not prospectively prespecified. Although all eligible studies remained in the synthesis and the classification did not serve as a quality ranking, some post hoc interpretive bias remains possible. During peer-review revision, one previously included multiprofessional report was removed from the primary sample because its absenteeism results could not be separated for nursing staff. The resulting counts and synthesis were updated accordingly. The scarcity of intervention studies further limits conclusions about which management measures effectively reduce absenteeism.

Conclusion

Hospital nursing absenteeism is a multidimensional workforce-management phenomenon associated with workers' physical and psychological health, workload, staffing, working-time organization, psychosocial conditions, the practice environment, and family responsibilities. Its most directly demonstrated consequences were lost working time, financial and productivity costs, and additional staffing and coverage requirements, whereas effects on continuity, quality, and patient safety were less consistently measured.

For nursing management and clinical practice, the evidence supports a layered approach based on systematic monitoring of absence patterns, analysis of staffing, workload, roster, occupational-health, and psychosocial indicators, and interventions matched to the dominant local pattern. Management priorities include recovery-oriented scheduling, adequate staffing, ergonomic and mental-health support, supportive leadership, work-family

flexibility, and structured return-to-work pathways. However, these should be regarded as evidence-informed priorities rather than universally proven interventions.

For education, nurse-manager development should include interpretation and critical appraisal of absenteeism and workforce indicators, recovery-oriented rostering, supportive communication and leadership, and coordination of return-to-work processes.4,17-23,28,31-40 For research, future studies should adopt standardized nursing-specific definitions and measures of absenteeism and consistently report frequency, duration, recurrence, reason, and data source. Prospective studies linking staffing, workload, and electronic scheduling data with objectively recorded absence are needed, together with controlled or robust quasi-experimental evaluations of multilevel organizational interventions. These evaluations should prespecify absenteeism as an outcome and include economic outcomes and potential unintended effects, such as presenteeism and workload transfer to colleagues.

Conflict of Interest

All authors declare no conflict of interest, financial or non-financial, to disclose.

Data Availability

The data supporting the findings of this integrative review are derived from published studies. Study-level JBI critical-appraisal judgments and the core/complementary classification are provided in Supplementary File 1. Search, screening and extraction matrices supporting the synthesis are available from the corresponding author upon reasonable request.

AI Use Statement

During the preparation of this manuscript, the authors used ChatGPT (OpenAI, GPT-5.6) for language refinement and editorial support. The authors reviewed and edited the output and take full responsibility for the content of the manuscript.

References

1. Sabzi Z, Jafari H, Bakhshian F, Saadat Mehr R. Factors associated with nurses' absenteeism in clinical settings: a narrative review. *J Nurs Rep Clin Pract*. 2023;2(1):27-31. doi:10.32598/JNRCP.23.36
2. Al Ismail H, Herzallah NH, Al-Otaibi ST. What are the predictors and costs of nurse absenteeism at select multicenter government hospitals? A cross-sectional study. *Front Public Health*. 2023;11:1073832. doi:10.3389/fpubh.2023.1073832
3. Vargas-Benítez MA, Izquierdo-Espín FJ, Castro-Martínez N, et al. Burnout syndrome and work engagement in nursing staff: a systematic review and meta-analysis. *Front Med* (Lausanne). 2023;10:1125133. doi:10.3389/fmed.2023.1125133
4. Mamatsharaga T, Mutshatshi TE, Ramavhoya TI. Nurse managers' strategies to reduce absenteeism amongst nurses at selected public hospitals in Limpopo Province, South Africa. *Open Public Health J*. 2025;18:e18749445378792. doi:10.2174/0118749445378792250219062822
5. Lee M, Cha C. Interventions to reduce burnout among clinical nurses: systematic review and meta-analysis. *Sci Rep*. 2023;13:10971. doi:10.1038/s41598-023-38169-8
6. Dhollande S, Taylor A, Meyer S, Scott M. Conducting integrative reviews: a guide for novice nursing researchers. *J Res Nurs*. 2021;26(5):427-438. doi:10.1177/1744987121997907
7. Page MJ, McKenzie JE, Bossuyt PM, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. *BMJ*. 2021;372:n71. doi:10.1136/bmj.n71
8. JBI. Critical Appraisal Tools. https://jbi.global/critical-appraisal-tools
9. Luengo Martínez C, Palma Moraga S, Sandoval Paredes C, Sepúlveda Vásquez A, Villarroel Villarroel CM. Occupational fatigue and work absenteeism in female assistant nurses of a high-complexity hospital, Chile. *Cien Saude Colet*. 2020;25(1):243-249. doi:10.1590/1413-81232020251.28832019
10. Kunrath GM, Santarem MD, Oliveira JLC, et al. Predictors associated with absenteeism-disease among nursing professionals working in an emergency hospital service. *Rev Gaucha Enferm*. 2021;42:e20190433. doi:10.1590/1983-1447.2021.20190433
11. Booker LA, Sletten TL, Alvaro PK, et al. Exploring the associations between shift work disorder, depression, anxiety and sick leave taken amongst nurses. *J Sleep Res*. 2020;29(3):e12872. doi:10.1111/jsr.12872
12. Gómez-Ramos JJ, Pérez-Ruíz ME, Dávalos-Rodríguez IP, et al. Burnout syndrome and absenteeism among nursing staff at a secondary-level hospital in Western Mexico: a gender-based cross-sectional analysis. *Nurs Rep*. 2026;16(4):123. doi:10.3390/nursrep16040123
13. Mahmoud ET, El Mageed MIA, Elewa AH. Workplace stressors in relation to causes and rate of absenteeism among emergency nurses. *Egypt Nurs J*. 2026;23:234-243. doi:10.4103/enj.enj_2_25
14. Mat Saruan NA, Mohd Yusoff H, Mohd Fauzi MF. Family responsibilities and involuntary job absenteeism among nurses in teaching hospital. *Malays J Med Sci*. 2019;26(4):38-48. doi:10.21315/mjms2019.26.4.5
15. Heistad A, Goldsworthy S, Reilly S, Perez G. How do intensive work environments affect nurses' absenteeism and turnover intent? *Appl Nurs Res*. 2022;66:151608. doi:10.1016/j.apnr.2022.151608
16. Oliveira PB, Spiri WC. Absenteeism of nurses and nursing technicians in the urgency and emergency unit. *Rev Gaucha Enferm*. 2022;43:e20210254. doi:10.1590/1983-1447.2022.20210254.en
17. Nwanosike E, Dall'Ora C, Griffiths P, et al; SEISMIC-R Study Group. Nurse staffing configurations and sickness absence in English intensive care units: a longitudinal observational study. *Int J Nurs Stud Adv*. 2025;9:100451. doi:10.1016/j.ijnsa.2025.100451
18. Kuusi T, Kulvik M, Härmä M, Ropponen A. Workload and short sickness absences in a cohort of Finnish hospital employees. *Eur J Health Econ*. 2025;26(2):199-222. doi:10.1007/s10198-024-01698-8
19. Dall'Ora C, Ball J, Redfern O, et al. Are long nursing shifts on hospital wards associated with sickness absence? A longitudinal retrospective observational study. *J Nurs Manag*. 2019;27(1):19-26. doi:10.1111/jonm.12643
20. Ropponen A, Koskinen A, Puttonen S, Härmä M. Exposure to working-hour characteristics and short sickness absence in hospital workers: a case-crossover study using objective

data. *Int J Nurs Stud*. 2019;91:14-21. doi:10.1016/j.ijnurstu.2018.11.002
21. Emmanuel T, Griffiths P, Lamas-Fernandez C, Dall'Ora C. Associations between adverse working hours and nurses' sickness absence: a longitudinal analysis of e-roster data from acute hospital wards. *BMJ Open*. 2026;16:e120066. doi:10.1136/bmjopen-2026-120066
22. Dall'Ora C, Ball J, Redfern OC, Griffiths P. Night work for hospital nurses and sickness absence: a retrospective study using electronic rostering systems. *Chronobiol Int*. 2020;37(9-10):1357-1364. doi:10.1080/07420528.2020.1806290
23. Vedaa Ø, Pallesen S, Erevik EK, et al. Long working hours are inversely related to sick leave in the following 3 months: a 4-year registry study. *Int Arch Occup Environ Health*. 2019;92(4):457-466. doi:10.1007/s00420-018-1372-x
24. Bajan A, Matijašić-Bodalec D, Krstačić A, et al. The connection between the experience of mobbing, job characteristics and physical manifestations among nurses/technicians working in children's departments. *Acta Clin Croat*. 2025;64(2):280-290. doi:10.20471/acc.2025.64.02.12
25. Garcia AEF, Lemos GR, Almeida VP, Marta CB, Machado DA. O custo do absenteísmo do profissional de enfermagem numa instituição pública. *Enferm Foco*. 2019;10(5):123-129. doi:10.21675/2357-707X.2019.v10.n5.2472
26. Shdaifat EA, Alolayyan MN, Rosario AB, Al-Ansari NM. Absenteeism among nurses: costs, working conditions, and related factors. *Int J Product Qual Manag*. 2023;38(4):518-544. doi:10.1504/IJPQM.2023.130186
27. Trettene AS, Razera APR, Beluci ML, Prado PC, Mondini CCSD, Spiri WC. Absenteeism and the Technical Safety Index of a tertiary hospital nursing team. *Rev Esc Enferm USP*. 2020;54:e03585. doi:10.1590/S1980-220X2018036003585
28. Grejo JR, Bom GC, Matiole CR, Prado PC, Kostrisch LMV, Trettene AS. Absenteeism of nursing team from a public tertiary hospital: etiology and associated factors. *Rev Enferm UERJ*. 2022;30:e70082. doi:10.12957/reuerj.2022.70082
29. Burmeister EA, Kalisch BJ, Xie B, et al. Determinants of nurse absenteeism and intent to leave: an international study. *J Nurs Manag*. 2019;27(1):143-153. doi:10.1111/jonm.12659
30. Schug C, Geiser F, Hiebel N, et al. Sick leave and intention to quit the job among nursing staff in German hospitals during the COVID-19 pandemic. *Int J Environ Res Public Health*. 2022;19(4):1947. doi:10.3390/ijerph19041947
31. Saber EAE, Abdalla SM, Ahmad MM, Yousef HR, Ayasrah SM. Motivate nurses and reduce the absenteeism rate in Intensive Care Units. *Nursing Care & Research / Nosileia kai Ereuna*. 2021;(60):124-133.
32. Ticharwa M, Cope V, Murray M. Nurse absenteeism: an analysis of trends and perceptions of nurse unit managers. *J Nurs Manag*. 2019;27(1):109-116. doi:10.1111/jonm.12654
33. Velásquez Perales RA, Loli Ponce RA, Sandoval Vegas MH. Factores asociados al ausentismo laboral de enfermeras. *Rev Cubana Enferm*. 2019;35(4):e3268.
34. Grøtting G, Øvergård KI. The relation between routines for shiftwork scheduling and sickness absence at a Norwegian hospital: a cross-sectional study. *Int J Nurs Stud*. 2023;141:104477. doi:10.1016/j.ijnurstu.2023.104477
35. Ose SO, Færevik H, Håpnes T, Øyum L. Perceived causes of work-related sick leave among hospital nurses in Norway: a prepandemic study. *Saf Health Work*. 2022;13(3):350-356. doi:10.1016/j.shaw.2022.04.002
36. Banks C, Pearson S. Personality, staff attitudes and their association with absenteeism and presenteeism in Australian public sector hospital-based nurses: a cross-sectional study. *J Nurs Manag*. 2021;29(8):2639-2646. doi:10.1111/jonm.13443
37. Petersen J, Wendsche J, Melzer M. Nurses' emotional exhaustion: prevalence, psychosocial risk factors and association to sick leave depending on care setting—a quantitative secondary analysis. *J Adv Nurs*. 2023;79(1):182-193. doi:10.1111/jan.15471
38. Sakuraya A, Tran TTT, Sripo N, et al. Effects of a smartphone-based stress management program on work performance, sick leave, and intention to leave among nurses during COVID-19 in Vietnam and Thailand: an analysis of secondary outcomes of a randomized controlled trial. *J Occup Health*. 2025;67(1):uiaf061. doi:10.1093/joccuh/uiaf061
39. Aloğlu N, Güllü A. Investigation of unplanned absenteeism of nurses working in a university hospital: cross-sectional study. *J Radiol Nurs*. 2022;41(4):326-330. doi:10.1016/j.jradnu.2022.06.001
40. Sunzi K, Lin Y, Huang Q, et al. The experiences and perceptions of organizational support among Chinese nurses following work-related musculoskeletal disorders: a qualitative descriptive study. *Nurs Open*. 2026;13:e70793. doi:10.1002/nop2.70793
41. Fiorini LA, Houdmont J, Griffiths A. Nurses' illness perceptions during presenteeism and absenteeism. *Occup Med* (Lond). 2020;70(2):101-106. doi:10.1093/occmed/kqaa012
42. Ferreira AG, Lopes MRC, Borba AKOT, Marques APO, Alves FAP, Lima BCC. Factors associated with absenteeism in elderly nursing workers. *Rev Gaucha Enferm*. 2022;43:e20210063. doi:10.1590/1983-1447.2022.20210063.en
43. López-Millán B, Benavides FG, Ramada JM, Serra C, Serra L, Utzet M. COVID-19 pandemic impact on sickness absences among healthcare workers: a cohort study in a Spanish hospital (2018-2023). *Med Lav*. 2025;116(1):16525. doi:10.23749/mdl.v116i1.16525
44. Shahjalal M, Mosharaf MP, Mahumud RA. Effect of workplace violence on health workers injuries and workplace absenteeism in Bangladesh. *Glob Health Res Policy*. 2023;8:33. doi:10.1186/s41256-023-00316-z
45. Ku B, Phillips KE, Fitzpatrick JJ. The relationship of body mass index (BMI) to job performance, absenteeism and risk of eating disorder among hospital-based nurses. *Appl Nurs Res*. 2019;49:77-79. doi:10.1016/j.apnr.2019.05.021
46. Strauch J, Braun K, Linder K, et al. Use of an automated hand hygiene compliance system by emergency room nurses and technicians is associated with decreased employee absenteeism. *Am J Infect Control*. 2020;48(5):575-577. doi:10.1016/j.ajic.2019.11.023
47. Lima IS, Barreto DMO. Absenteeism due to COVID-19 in nursing professionals in the intensive care unit. *Enferm Foco*. 2024;15:e-202402. doi:10.21675/2357-707X.2024.v15.e-202402
48. Alves ABSL, Matos FGOA, Carvalho ARS, et al. Absenteeism in nursing in the face of COVID-19: a comparative study in a hospital from southern Brazil. *Texto Contexto Enferm*. 2022;31:e20210254. doi:10.1590/1980-265X-TCE-2021-0254
49. Popa MV, Gurzu IL, Handra CM, et al. Impact of the COVID-19 pandemic on musculoskeletal disorder-related absenteeism among pediatric healthcare workers.

Healthcare (Basel). 2025;13(10):1116. doi:10.3390/healthcare13101116
50. Adisesh A, Durand-Moreau Q, Labrèche F, Ruzycki S, Zadunayski T, Cherry N. Determinants of sickness absence duration after mild COVID-19 in a prospective cohort of Canadian healthcare workers. *J Occup Environ Med*. 2023;65(11):958-966. doi:10.1097/JOM.0000000000002945
51. Chrissian AA, Oyoyo UE, Patel P, et al. Impact of COVID-19 vaccine-associated side effects on health care worker absenteeism and future booster vaccination. *Vaccine*. 2022;40(23):3174-3181. doi:10.1016/j.vaccine.2022.04.046
52. Dolić M, Antićević V, Dolić K, Pogorelić Z. Difference in pandemic-related experiences and factors associated with sickness absence among nurses working in COVID-19 and non-COVID-19 departments. *Int J Environ Res Public Health*. 2022;19(3):1093. doi:10.3390/ijerph19031093
53. de Wet T, Kruger WH, Joubert G. Obesity and sickness absenteeism among health workers in a private hospital in South Africa. *S Afr Fam Pract* (2004). 2022;64(1):a5418. doi:10.4102/safp.v64i1.5418
54. Suárez Egoávil CA. Enfermedad profesional y ausentismo laboral en los trabajadores de un hospital de Lima-Perú. *Rev Fac Med Hum*. 2021;21(2):364-371. doi:10.25176/RFMH.v21i2.3657
55. Najafi A, Sadeghniiat Haghighi K, Mohammadnejad E, Dehghan Manshadi SA, Izadi N. Sick leave characteristics among nurses of a referral hospital during COVID-19 pandemic. *Acta Med Iran*. 2021;59(10):599-602. doi:10.18502/acta.v59i10.7765
56. Kantorski LP, Oliveira MM, Treichel CAS, Alves PF, Lemos DSC, Ramos CI. Suspeita de infecção, abstenção no trabalho e testagem para COVID-19 entre profissionais de enfermagem. *Texto Contexto Enferm*. 2021;30:e20210135. doi:10.1590/1980-265X-TCE-2021-0135
57. Kowalczuk K, Krajewska-Kułak E, Sobolewski M. Working excessively and burnout among nurses in the context of sick leaves. *Front Psychol*. 2020;11:285. doi:10.3389/fpsyg.2020.00285
58. Hajo S, Reed JL, Hans H, et al. Physical activity, sedentary time and sleep and associations with mood states, shift work disorder and absenteeism among nurses: an analysis of the cross-sectional Champlain Nurses' Study. *PeerJ*. 2020;8:e8464. doi:10.7717/peerj.8464
59. Rocha FP, Saito CA, Pinto TCNO. Sickness absenteeism among health care workers in a public hospital in São Paulo, Brazil. *Rev Bras Med Trab*. 2019;17(3):355-362. doi:10.5327/Z1679443520190333
60. Koukaras P, Koukaras C, Mystakidis A, Mantzavinis GD, Stavrinides SG, Tjortjis C. Operations research: a comprehensive literature review on nurse rostering optimisation. *Operational Research*. 2026;26:101. doi:10.1007/s12351-026-01090-9