

# The Determinants of Work-Life Balance in Nursing: A Systematic Review

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**Abstract:** *Work-life balance is a persistent challenge in nursing because caregiving is delivered within chronically demanding, time-sensitive, and emotionally intensive environments. This systematic review aimed to identify, critically appraise, and synthesize empirical evidence on the determinants of work-life balance among nurses. The review was conducted and reported in line with PRISMA 2020 guidance. A structured search of PubMed/MEDLINE, CINAHL, Scopus, Web of Science, PsycINFO, and the Cochrane Library was undertaken for English-language studies published between January 2015 and December 2024. Quantitative, qualitative, and mixed-methods studies that examined work-life balance, work-family balance, work-family conflict, or closely related constructs among nurses were eligible. Twenty-four studies met the inclusion criteria and were synthesized narratively because of substantial heterogeneity in design, setting, and outcome measurement. Across the included studies, the most consistent determinants of poorer work-life balance were high workload, understaffing, rotating and night shifts, long working hours, schedule unpredictability, weak managerial support, unsupportive organizational climate, caregiving burden, stress, emotional exhaustion, sleep disruption, fatigue, and physical pain. Protective factors included family support, resilience, positive coping, schedule flexibility, and family-supportive leadership. Overall, the evidence indicates that nurses' work-life balance is shaped less by personal preference alone than by the interaction between individual resources and organizational conditions. Improving work-life balance in nursing therefore requires multilevel action, particularly staffing reform, healthier scheduling systems, family-supportive leadership, and policy environments that protect recovery time and sustainable practice.*

**Keywords:** Work-life balance; nursing; systematic review; determinants; occupational health.

## 1. Introduction

Work-life balance (WLB) is a critical workforce and health-systems concern because it reflects the extent to which work and non-work roles can be experienced as compatible, manageable, and mutually sustainable. In the work-family literature, balance is not simply the equal distribution of time; rather, it refers to satisfactory functioning across salient life roles in ways that remain consistent with role expectations and personal values (Greenhaus & Allen, 2011). Clark's Work/Family Border Theory similarly explains that individuals move across domains governed by different temporal demands, norms, and identities, and that balance depends on how permeable, flexible, and controllable those borders are (Clark, 2000). In nursing, those boundaries are often fragile because the profession is organized around continuous service provision, shift dependency, emotional labour,

and exposure to suffering, all of which intensify work-to-family spillover, family-to-work interference, and chronic role conflict (Allen et al., 2000). The importance of WLB is amplified by contemporary workforce pressures in nursing. The State of the World's Nursing 2025 report noted continued growth in the global nursing workforce but also emphasized persistent shortages, especially in lower-resourced settings and in systems already facing retention challenges and uneven skill distribution (World Health Organization [WHO], 2025a). Turnover compounds this instability. Recent meta-analyses estimated pooled global nurse turnover rates of 16% to 18% and linked turnover to workforce conditions, respondent characteristics, and contextual factors that are directly relevant to nurses' ability to sustain a viable work-life interface (Ren et al., 2024). This matters because turnover and intention to leave are repeatedly associated with escalating workload, reduced continuity of care, and worsening organizational strain, thereby further undermining WLB for the nurses who remain (de Vries et al., 2023).

Burnout research further clarifies why WLB should be treated as a safety and sustainability issue rather than as an optional wellbeing topic. Jun et al. (2021) showed that nurse burnout is associated with poorer safety and quality outcomes, lower patient satisfaction, and reduced organizational commitment. Li et al. (2024) strengthened this evidence through meta-analysis, demonstrating consistent associations between nurse burnout and lower healthcare quality, poorer patient safety, and worse patient satisfaction. From a Job Demands-Resources perspective, prolonged demands such as workload, shift burden, and emotional labour deplete energy, whereas resources such as staffing adequacy, autonomy, supportive supervision, and family-supportive policies can buffer strain and protect functioning (Bakker & Demerouti, 2007). In this sense, poor WLB is both a contributor to burnout and one of its practical manifestations. The nursing literature already indicates that WLB is shaped by a constellation of personal, occupational, and contextual factors. Studies across Japan, Singapore, Malaysia, Jordan, South Korea, China, and other settings have linked poorer balance or greater work-family conflict to excessive workload, limited schedule control, caregiving pressure, poor sleep, physical pain, emotional exhaustion, and weak supervisory or organizational support (Xu et al., 2023). Pandemic-period research has further shown how crises magnify these tensions through moral distress, infection risk, staffing instability, and boundary erosion between work and home (Korkmaz Aslan et al., 2023). At the same time, several demographic variables, such as age, marital status, number of children, and educational level, show context-dependent rather than uniform effects, which suggests that WLB is mediated by social policy, organizational culture, and available support more than by demographics alone (Obina et al., 2024).

Despite this expanding literature, the evidence remains fragmented. Existing reviews have addressed adjacent constructs such as burnout, quality of nursing work life, mental wellbeing, and the consequences of work-family imbalance, but they have not consistently synthesized the full range of determinants of WLB in nursing as a multilevel phenomenon. Reviews of nurse wellbeing, quality of work life, and pandemic-period work-family balance are informative, yet they typically privilege outcomes or subdomains over a comprehensive determinant framework (Almeida et al., 2024). That gap is methodologically and practically important because it encourages organizations to emphasize individual coping while underestimating the structural conditions that generate imbalance in the first place. This systematic review aimed to identify, critically appraise, and synthesize the empirical evidence on the determinants of work-life balance among nurses. The review considered determinants operating at three interacting levels: individual characteristics and resources, organizational work and management conditions, and systemic or macro-level policy and sociocultural influences. The sections that follow outline the review methods, describe the included studies, synthesize determinant themes, critically discuss cross-study patterns and limitations, and conclude with implications for nursing practice, management, policy, and future research.

## 2. Materials and Methods

### 2.1. Review design and reporting framework

This systematic review was conducted and reported in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) 2020 guidelines (Page et al., 2021). The review protocol was not prospectively registered. Given the conceptual breadth of WLB in nursing, the review adopted an inclusive determinants-focused approach that considered predictors, correlates, and explanatory factors associated with nurses' work-life balance or closely related constructs such as work-family balance, work-family conflict, work-life integration, and quality of nursing work life when these were used as operational expressions of the work-life interface. Because the included studies varied substantially in design, measurement instruments, and analytical strategy, a narrative synthesis approach was prespecified as the most appropriate method for integrating findings (Popay et al., 2006).

### 2.2. Eligibility criteria

Eligibility criteria were structured around a Population-Exposure/Phenomenon-Outcome-Study Design logic. The population of interest included registered nurses, licensed practical nurses, nurse managers, and other nursing professionals working in any healthcare setting, including hospitals, emergency departments, intensive care units, community services, long-term care, rehabilitation, and primary care. Eligible studies examined determinants, predictors, correlates, or explanatory factors related to WLB or to its operational equivalents. Outcomes therefore included direct WLB measures as well as validated work-family conflict, work-home interaction measures, and closely aligned quality-of-work-life indicators when the conceptual focus remained the balance between professional and personal roles. Quantitative, qualitative, and mixed-methods primary studies were eligible if they were published in English between January 2015 and December 2024. Conference abstracts without full text, editorials, commentaries, opinion pieces, dissertations, and studies focused exclusively on non-nursing healthcare workers were excluded. Studies in which WLB-related outcomes were not measured or discussed as a primary or secondary outcome were also excluded.

### 2.3. Information sources and search strategy

The search strategy covered PubMed/MEDLINE, CINAHL via EBSCOhost, Scopus, Web of Science, PsycINFO, and the Cochrane Library. Supplementary searching included backward reference-list screening of included studies and focused Google Scholar screening for additional eligible records. The core search combined terms for the work-life interface, nursing populations, and determinants. An example PubMed string was as follows: ("work-life balance" OR "work-family balance" OR "work-family conflict" OR "work-life conflict" OR "work-life integration" OR "quality of work life") AND ("nurs" OR "registered nurse" OR "nursing staff" OR "nurse manager" OR "nursing workforce") AND ("determinant" OR "factor" OR "predictor" OR "correlat" OR "influence" OR "associated factor"). Equivalent subject headings and database syntax were adapted for each source, and all searches were limited to the predefined date range and English-language publications.

### 2.4. Study selection process

Study selection was undertaken through a structured multistage screening procedure, as depicted in Figure 1. The initial database search yielded 851 records, comprising 293 from PubMed, 270 from Scopus, and 288 from EBSCO. Following the removal of 391 duplicate records, 460 unique records remained for title and abstract screening. At this stage, 370 articles were excluded on the grounds that they did not satisfy the predefined eligibility criteria, resulting in 90 reports being sought for retrieval. Subsequent full-text screening led to the exclusion of 66 articles, leaving 24 reports for eligibility assessment. No further reports were excluded at this stage. Consequently, a final total of 24 studies were included in the review. Figure 1 summarises the full process of study identification, screening, eligibility assessment, and final inclusion.

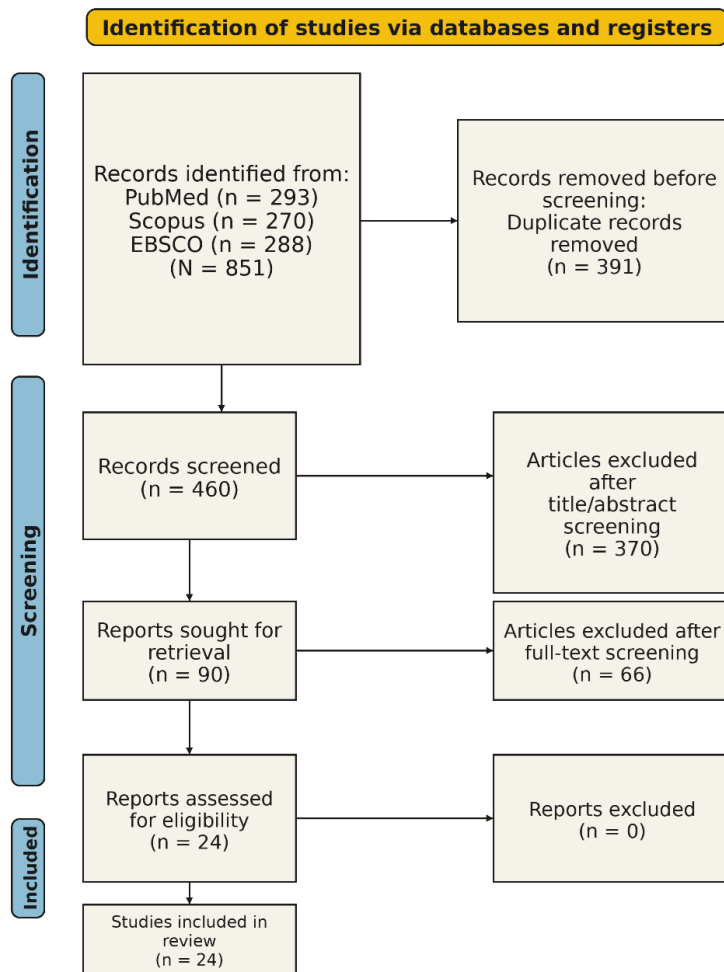


Figure 1. PRISMA flow diagram showing the process of study identification, screening, and inclusion.

### 2.5. Data extraction

Data were extracted with a structured template designed to capture author and year, country, setting, study design, participant group, determinants examined, WLB-related measurement approach, and main findings. Particular attention was given to how WLB was operationalized because some studies used direct WLB scales, whereas others examined work-family conflict, professional quality of life, or quality of nursing work life. This distinction was important for synthesis because the underlying

theoretical emphasis differs across instruments: some capture perceived balance, some capture directional conflict, and others capture the broader conditions that make balance more or less attainable. Commonly encountered measures included the Work-Family Conflict Scale (Carlson et al., 2000), Hayman's Work-Life Balance Scale (Hayman, 2005), the Survey Work-Home Interaction-NijmeGen (Geurts et al., 2005), and nursing-specific quality-of-work-life instruments.

## 2.6. Quality assessment

Methodological quality was appraised using the Joanna Briggs Institute (JBI) critical appraisal tools appropriate to the included design types and, where relevant for mixed-methods evidence, the Mixed Methods Appraisal Tool (MMAT) version 2018 (Moola et al., 2020). Appraisal focused on sampling adequacy, measurement clarity, treatment of confounding, analytic transparency, and the alignment between study aims and conclusions. Most studies were judged to be of moderate quality. The strongest studies used validated instruments and multivariable analyses, whereas common weaknesses included cross-sectional designs, convenience sampling, self-report measures, and limited control for confounding.

## 2.7. Data synthesis

Because a meta-analysis was not feasible, findings were synthesized narratively and organized thematically by determinant level. Following the logic of Popay et al. (2006), the synthesis moved from descriptive mapping of study characteristics to the development of a conceptual structure distinguishing individual-level, organizational-level, and systemic-level determinants. This structure was then used to compare recurring patterns across contexts and to identify points of convergence, divergence, and interaction. Throughout the synthesis, priority was given to determinants that emerged repeatedly across countries or settings, as these were most relevant for a coherent explanatory account of WLB in nursing.

## 3. Results

### 3.1. Overview of included studies

A total of 24 studies were synthesized. The evidence base was dominated by cross-sectional quantitative designs, with a smaller number of longitudinal, secondary-data, or comparative observational studies. Geographically, the literature was concentrated in Asia and the Middle East, with additional studies from Europe, Africa, and Australia. Acute hospital settings accounted for the majority of studies, especially medical-surgical wards, emergency departments, intensive care units, and tertiary hospitals, although long-term care, nursing homes, and occupational-health contexts were also represented. Sample sizes ranged from fewer than 100 nurses in unit-specific studies to several thousand participants in multi-site or secondary-data analyses. Conceptually, WLB was measured in heterogeneous ways, including direct WLB scales, bidirectional work-family conflict measures, work-home interaction instruments, quality-of-work-life scales, and professional-quality-of-life measures. This heterogeneity reinforces the need for interpretive caution, but it also reveals a clear conceptual overlap: across instruments, studies were attempting to capture the degree to which work demands crowd out, disrupt, or can be reconciled with nurses' personal and family lives.

The thematic synthesis showed that WLB in nursing is shaped by determinants operating at three interacting levels. At the individual level, recurrent determinants included gendered caregiving roles, marital and parental responsibilities, stress, emotional exhaustion, resilience, social support, sleep quality, and physical health. Organizational-level determinants included workload, staffing adequacy, patient-to-nurse ratios, shift patterns, schedule flexibility, supervisory support, collegial climate, incivility, autonomy, and family-friendly human-resource policies. Systemic-level determinants included labour regulation, chronic workforce shortages, cultural expectations around gender and caregiving, and the additional service pressures created by the COVID-19 pandemic. Although these categories are analytically useful, the reviewed studies consistently pointed to interaction rather than isolation: personal resilience, for example, was protective under some conditions but was weakened by chronic understaffing, long shifts, and unsupportive leadership (Xu & Zhao, 2024).

*Table 1 : Representative characteristics of included studies*

Study	Context	Design	Key determinants	Main finding
Makabe et al. (2015)	Hospital nurses	Cross-sectional	Work-life imbalance; job satisfaction; quality of life	Greater work-life imbalance was associated with poorer job satisfaction and lower quality of life.
Kim & Windsor (2015)	First-line nurse managers	Cross-sectional	Resilience; role strain	Higher resilience was associated with better work-life balance in managerial nursing roles.
Adriaenssens et al. (2015)	Emergency nurses	Longitudinal	Occupational stress; emotional demands	Stressors in emergency care predicted downstream strain relevant to work-home functioning.
Leineweber et al. (2016)	Multi-country hospital nurses	Multilevel comparative	Schedule flexibility; practice environment	Poorer practice environments and lower schedule flexibility were linked to intention to leave.
Nurumal et al. (2017)	Teaching hospital	Cross-sectional	Workload; family demands; scheduling	Work-life balance was sensitive to work and family pressures in hospital nurses.
Kowitlawkul et al. (2019)	Tertiary hospital	Cross-sectional	Social support; stress; time use	Support from family, friends, colleagues, and supervisors was relevant to better balance.
Holland et al. (2019)	Hospital nurses	Cross-sectional	Perceived workload	Higher perceived workload reduced satisfaction with work-life balance and increased intention to leave.
Garde et al. (2019)	Nordic nurses	Comparative payroll study	Working-hour characteristics; schedule patterns	Irregular and demanding schedules affected recovery opportunities relevant to WLB.
Mahendran et al. (2019)	Hospital nurses	Cross-sectional	Work-life balance; burnout	Poorer WLB was associated with higher burnout.
Sripo et al. (2019)	Occupational health nurses	Cross-sectional	Age; family support; work conditions	Work and family context jointly shaped perceived balance.
Suleiman et al. (2019)	Emergency nurses	Cross-sectional	Stress; compensation; work environment	Quality of nursing work life varied with work environment and job-related factors.
Şahin et al. (2021)	Nurses before/during COVID-19	Comparative cross-sectional	Family-supportive supervisors; work-to-family conflict	Family-supportive supervision reduced conflict and supported thriving.
Chang & Wang (2022)	Female rotating-shift nurses	Cross-sectional	Sleep fragmentation; fatigue	Sleep disruption and fatigue undermined sustainable work participation.

Study	Context	Design	Key determinants	Main finding
Min (2022)	South Korean nursing homes	Cross-sectional	Resilience; burnout; physical pain	Resilience improved WLB, whereas burnout and physical pain worsened it.
Al-Hammouri & Rababah (2023)	Hospital nurses	Comparative	Rotating versus fixed shifts	Rotating shifts increased work-family and family-work conflict and reduced work-related quality of life.
Rony et al. (2023)	Nurses in LMIC hospital settings	Cross-sectional	Work-life imbalance; family impact on work	Imbalance was associated with unhappiness and bidirectional work-family interference.
Xu et al. (2023)	Clinical nurses	Cross-sectional	Family care; organizational support	Family care demands and organizational support were associated with professional quality of life.
Korkmaz Aslan et al. (2023)	Internal-clinic nurses during COVID-19	Cross-sectional	Psychological resilience; pandemic strain	Pandemic-period pressures and resilience levels influenced balance.
Kang et al. (2024)	Clinical nurses	Secondary data analysis	Physical distress; support; absenteeism; turnover intention	Physical distress, support, absenteeism, and turnover intention predicted WLB.
Zhang et al. (2024)	Hospital nurses	Cross-sectional	Psychological capital; job satisfaction; mental health	Better WLB was linked to stronger psychological resources, job satisfaction, and mental health.

Source: Authors' synthesis of the included studies.

### 3.2. Thematic synthesis of determinants

#### (a) Individual-level determinants

At the individual level, gender and family-role expectations were recurring determinants of WLB. Because the nursing workforce remains predominantly female in most settings, many nurses navigate professional demands alongside socially expected caregiving responsibilities, including childcare, eldercare, and household management. Several studies found that marital status, number of dependents, and family responsibilities were associated with poorer WLB or greater work-family conflict, particularly when nurses had limited domestic support or worked irregular shifts (Obina et al., 2024). However, these findings were not fully consistent across contexts. Some studies suggested that variables such as marital status or number of children exerted weaker effects once workplace factors were considered, indicating that demographic characteristics alone are poor explanatory variables unless they are interpreted through the organizational conditions in which family responsibilities must be managed.

Psychological determinants were among the strongest and most consistent individual-level findings. Emotional exhaustion, burnout, perceived stress, and diminished psychological wellbeing were repeatedly associated with poorer WLB, while resilience and positive psychological resources tended to be protective (Zhang et al., 2024). In emergency and high-acuity settings, occupational stress appears especially consequential. Adriaenssens et al. (2015) showed longitudinal links between emergency-nursing stressors and downstream strain consequences, while Córdova-Martínez et al. (2023) and Ruiz-Fernández et al. (2020) connected professional quality of life to wellbeing-relevant psychological factors. These findings align closely with the Conservation of Resources perspective and the Job Demands-Resources model: depleted emotional and energetic resources make it difficult

to sustain performance across work and home spheres, whereas personal resources such as resilience can help absorb shocks only up to a point.

Social support and coping further differentiated nurses' experience of balance. Family support, supportive intimate relationships, and peer or collegial support were associated with better adjustment to demanding work patterns, while inadequate support amplified the spillover of work strain into home life (Xu et al., 2023). Şahin et al. (2021) provided particularly useful evidence by showing that family-supportive supervisory behaviour contributed to nurses' thriving partly by reducing work-to-family conflict. This practical implication is important because it locates part of workplace support within managerial behaviour rather than outside the organization. Studies also suggested that coping style matters: problem-focused coping, recovery-oriented practices, and access to supportive conversations can reduce strain accumulation, whereas persistent rumination and emotionally saturated work-home crossover worsen imbalance. In effect, WLB is not determined only by what nurses carry, but also by whether they have relational infrastructures that help them carry it.

Physical health and physiological recovery were also relevant. Sleep disruption, fatigue, circadian disturbance, musculoskeletal pain, and general physical distress were linked to poorer WLB in multiple studies (Kang et al., 2024). Predictive evidence from Kang et al. (2024) further showed that physical distress, absenteeism, turnover intention, and support variables were relevant to WLB after patient-safety incidents. These findings are conceptually important because they show that WLB is not merely a subjective attitude toward time allocation. It is embodied. Nurses who leave work exhausted, in pain, or sleep deprived have fewer physical and psychological resources available for caregiving, social participation, and recovery outside work. This embodied depletion helps explain why repeated exposure to rotating shifts, overtime, and high emotional load can progressively erode both WLB and retention, even in nurses who report strong professional commitment.

### **(b) Organizational-level determinants**

Organizational-level determinants were the most powerful and consistent contributors to WLB across the reviewed literature. High workload, insufficient staffing, and adverse patient-to-nurse ratios were repeatedly associated with poorer balance, greater work-family conflict, lower satisfaction, and stronger intention to leave (Kamara et al., 2023). These associations are unsurprising but important: when staffing is inadequate, the burden of service continuity is redistributed to frontline nurses through overtime, missed breaks, work intensification, emotional overload, and less predictable recovery time. The organizational significance of schedule predictability extends beyond convenience because it enables childcare planning, family coordination, recovery routines, continuing education, and social participation. When schedules are volatile, work encroaches not only on time but also on control, making the non-work domain difficult to organize. Shift work and scheduling characteristics formed a second dominant organizational theme. Rotating schedules, night work, 12-hour shifts, weekend duty, overtime, and unpredictable rostering were consistently associated with poorer WLB or greater work-family conflict (Al-Hammouri & Rababah, 2023). The reviewed evidence also indicated that schedule flexibility and decision latitude can offset some of these pressures when nurses have genuine influence over transitions between work and non-work roles. This pattern is consistent with Border Theory and the Job Demands-Resources model, both of which predict that greater control over boundaries and work processes can mitigate the strain created by high demands (Bakker & Demerouti, 2007).

Supervisory support, and organizational culture were another major cluster of determinants. Nurses reported better WLB or related outcomes when managers were supportive, communicative, fair, and

attentive to family-related constraints; conversely, toxic leadership, low organizational support, incivility, and bullying undermined wellbeing and balance (Alsadaan et al., 2024). Meta-analytic evidence on workplace bullying is especially relevant because it shows that psychosocial hazards coexist with traditional workload stressors and can independently damage professional quality of life and job stress (Galanis et al., 2024). Organizational culture also matters through collegiality, recognition, and psychological safety. Where nurses experience respect, teamwork, and supportive peer norms, high demands may still be taxing, but they are less likely to become isolating. This observation fits the broader work-family support literature, which shows that family-specific supervisory behaviours and supportive organizational climates reduce conflict more effectively than generic support alone (Kossek et al., 2011). Control over work processes, and family-friendly human-resource policies were less frequently studied than workload and schedules, but the direction of evidence was consistent. Access to schedule flexibility, participatory decision-making, educational opportunities, childcare support, and fair compensation appeared to improve WLB-related outcomes, whereas low control and poor reward structures worsened them (Wong et al., 2021). In practical terms, autonomy is valuable because it expands nurses' capacity to align work patterns with family or recovery needs. This is fully consistent with Border Theory, which proposes that more flexible boundaries are easier to manage when individuals have genuine influence over transitions between domains (Clark, 2000). It also aligns with the Job Demands-Resources model, in which autonomy and control are classic job resources that buffer the strain of high demands.

### **(c) Systemic and macro-level determinants**

Systemic or macro-level determinants were discussed less directly in primary studies, but they were clearly visible in the background conditions shaping the evidence. Chronic workforce shortages, weak labour protections, insufficient investment in nursing retention, and policy environments that normalize overtime or excessive workload create structural conditions in which poor WLB becomes predictable rather than accidental (WHO, 2025a). Cultural and societal norms further shape how nurses interpret and carry these burdens. In many contexts, women remain expected to absorb the majority of unpaid caregiving even when they are employed in high-intensity full-time work, which helps explain the persistent gendering of WLB strain across studies. Cross-country variation in the reviewed literature suggests that family policy, childcare systems, leave entitlements, and working-time regulation probably moderate WLB, even when not directly measured.

The COVID-19 pandemic amplified nearly every determinant identified in this review. Studies conducted during or in the wake of the pandemic described heavier workloads, heightened fear, moral distress, more acute staffing shortages, and intensified work-home spillover (Korkmaz Aslan et al., 2023). Pandemic conditions also blurred domain boundaries because infection-control routines extended emotional labour into the home, while family concerns about contagion reshaped nurses' non-work lives. Importantly, COVID-19 did not create WLB problems *ex nihilo*; rather, it exposed and intensified pre-existing structural fragilities. The pandemic-era evidence therefore strengthens the broader conclusion of this review: WLB in nursing is most vulnerable when high demands converge with low staffing, low control, weak support, and thin recovery margins. The same general pattern likely also applies beyond the pandemic to other system shocks, including surges, crises, and prolonged under-resourcing.

#### 4. Discussion

Across the reviewed studies, the determinants that emerged most consistently were workload, staffing adequacy, shift burden, supervisory and organizational support, caregiving responsibilities, and psychological strain. Organizational factors were generally more stable predictors than demographic factors. Although age, marital status, and parental status sometimes mattered, their effects were usually contingent on work conditions. By contrast, workload, rotating shifts, low schedule control, and unsupportive leadership were repeatedly associated with poorer balance across countries and care settings. This pattern is theoretically coherent. Spillover and role-conflict theories predict that high work demands consume time and energy that would otherwise be available for non-work roles, while the Job Demands-Resources model predicts that the adverse effects of those demands will intensify when job resources are scarce. Conservation of Resources theory likewise predicts that chronic loss cycles will worsen strain over time. Taken together, the literature fits this integrated explanatory account well.

The literature nevertheless has clear methodological limitations. Cross-sectional studies dominated, which restricts causal inference and makes reciprocal relationships difficult to disentangle. Most studies also relied on self-report instruments, creating vulnerability to mood-congruent reporting and common-method bias. In addition, WLB was measured heterogeneously, sometimes as balance, sometimes as directional conflict, and sometimes through broader quality-of-work-life constructs, which complicates direct comparison. Many studies used convenience samples from single institutions or specific specialties, and low- and middle-income countries remain underrepresented relative to the scale of the global nursing shortage. These limitations explain why a quantitative meta-analysis was not appropriate and why future research should prioritize stronger longitudinal, comparative, and intervention-focused designs. A further interpretive point concerns interaction effects. Several studies implied that determinants do not operate independently. Organizational support can moderate the effect of workload, resilience can mediate the relationship between job demands and perceived balance, and family-supportive supervision can reduce the extent to which work strain crosses into home life (Xu et al., 2023). Likewise, physical distress and sleep disruption often appear downstream of shift burden but upstream of poorer WLB and turnover intention (Kang et al., 2024). These layered pathways suggest that future research should move beyond single-factor explanations and test mediated and moderated relationships more explicitly.

Quality appraisal indicated that the evidence was generally moderate rather than high. Most studies used validated instruments and sensible analytical approaches, but sampling was frequently non-probabilistic and many studies provided limited discussion of confounding or contextual moderators. Some of the stronger cross-sectional studies used multivariable modelling or mediation analysis to explore the relative importance of determinants, while secondary analyses and longitudinal work provided a more differentiated view of how organizational strain and WLB interact over time (Kang et al., 2024). This methodological pattern is itself instructive because it becomes easier for institutions to frame WLB as perception rather than condition when the literature rests mainly on cross-sectional self-report designs. More robust designs would better clarify how much of the variance in WLB is attributable to modifiable organizational exposures and how much reflects stable individual differences.

#### **4.1. Implications for practice, management, and policy**

The practical implications of this review are immediate. For nursing practice, individual-level resources such as sleep protection, recovery routines, peer support, and resilience-building remain useful, but they should not be overstated. For healthcare management, the stronger evidence points toward staffing adequacy, safer workload distribution, predictable rostering, family-supportive leadership, and anti-bullying organizational climates. For policy, WLB should be treated as a workforce sustainability issue tied to retention, safety, and care quality rather than as a soft wellbeing add-on. Legislative protections on working time, practical access to leave, investment in childcare and family-friendly employment provisions, and retention-focused workforce planning are all relevant policy levers. If healthcare systems want stable nursing workforces, they must stop treating balance as an individual luxury and start treating it as an institutional precondition for safe, sustainable care.

#### **4.2. Limitations of the review**

This review has several limitations. First, because the included literature was dominated by cross-sectional self-report studies, causal inference remained limited and reverse causation could not be ruled out. Second, the conceptual heterogeneity of WLB measurement reduced comparability across studies and precluded meta-analysis. Third, many included studies relied on convenience samples from single institutions or specific specialties, which constrains generalizability. Fourth, the review was limited to English-language publications and was not prospectively registered, which may have increased the risk of publication and selection bias. Finally, although the literature covered multiple regions, evidence from low-resource settings and from underrepresented nursing subgroups remains comparatively sparse.

### **5. Conclusion**

This systematic review synthesized the empirical evidence on the determinants of work-life balance among nurses and showed that WLB is shaped by interacting individual, organizational, and systemic conditions. Across the reviewed studies, the most consistent determinants of poorer balance were high workload, understaffing, rotating and night shifts, long working hours, schedule unpredictability, unsupportive supervision, weak organizational support, caregiving burden, emotional exhaustion, poor sleep, fatigue, and physical pain. Protective factors included resilience, supportive peer and family relationships, family-supportive supervision, schedule flexibility, and stronger organizational support. The overall pattern was clear: WLB in nursing is best understood as a multilevel phenomenon in which organizational conditions strongly structure the conditions under which personal balance is even possible. The review also showed that organizational determinants were generally more consistent than demographic determinants. Variables such as age, marital status, or number of children had context-dependent effects, whereas workload, staffing adequacy, shift burden, and managerial support emerged repeatedly across settings. This finding has direct practical significance because interventions that focus only on individual coping are unlikely to produce durable improvement unless they are paired with changes to scheduling, staffing, work design, and leadership behaviour. Multi-level strategies are therefore essential. At the practice level, nurses need recovery-supportive environments and credible access to peer and supervisory support. At the organizational level, leaders need to prioritize staffing adequacy, predictable rostering, participatory scheduling, and

anti-incivility climates. At the policy level, health systems need workforce investment, working-time protections, and family-friendly labour standards that make sustained participation in nursing more feasible.

Future research should move in four directions. First, more longitudinal studies are needed to distinguish antecedents from consequences and to capture cumulative depletion over time. Second, intervention studies should test whether staffing redesign, schedule reform, leadership training, and family-supportive organizational policies can measurably improve WLB and retention. Third, greater standardization in WLB measurement is required so that findings can be compared more directly across studies and settings. Fourth, under-researched populations including male nurses, community-based nurses, long-term-care nurses, and nurses working in low-resource systems should be examined more deliberately. Ultimately, improving WLB is fundamental to the sustainability of the nursing workforce. Health systems that ignore this issue risk not only higher burnout and turnover, but also weakened patient care quality, reduced organizational resilience, and a less stable future for nursing as a profession.

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