WORKLOAD, WORK–FAMILY CONFLICT, AND PROFESSIONAL LEARNING NEEDS AMONG MARRIED FEMALE NURSES

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ABSTRACT
This study examined the relationship between perceived workload and work–family conflict among married female nurses and considered its implications for professional learning needs. A quantitative cross-sectional correlational design involved 90 married female nurses at PKU Muhammadiyah Hospital, Temanggung, Indonesia, selected through proportionate stratified random sampling. Workload was assessed using a NASA Task Load Index–based measure and work–family conflict using the Netemeyer et al. scale. Descriptive analysis and Pearson correlation were applied. Average perceived workload was 69.98 on a 0–100 scale; mental demand (73.2), effort (72.6), and temporal demand (71.8) were the most prominent dimensions. Work-to-family conflict (M = 2.49) exceeded family-to-work conflict (M = 2.20). Workload was positively associated with overall conflict (r = 0.311, p = 0.003), with approximately 9.67% shared variance. These results suggest that clinical workload and scheduling pressures should be addressed through organizational measures. They also provide a rationale for exploring targeted professional learning in stress regulation, fatigue management, communication, and work–family boundary management. Professional learning needs were not directly measured, so the proposed educational responses are implications rather than empirical findings. Future studies should assess learning needs explicitly and evaluate training alongside workload and scheduling interventions.

Keywords: Female nurses, Professional learning, Shift work, Work–family conflict, Workload

INTRODUCTION

In the past decade, much research has focused on how intensifying healthcare demands reshape nurses' working conditions and, consequently, their well-being and performance. Hospitals worldwide face pressures from increasing patient acuity, tighter throughput expectations, and persistent staffing constraints—conditions that collectively elevate perceived workload and fatigue. Landmark evidence shows that heavier nurse workloads (e.g., higher patient-to-nurse ratios) are associated with higher nurse burnout and job dissatisfaction, alongside adverse patient outcomes (Aiken et al., 2002). More recent synthesis work reinforces the system-level relevance of nurse well-being: a large systematic review and meta-analysis in JAMA Network Open reported that nurse burnout is consistently associated with lower patient safety indicators, lower patient satisfaction, and lower nurse-assessed quality of care across countries and settings (Li et al., 2024). These findings underscore that workload is not merely an operational issue but a strategic determinant of quality and safety. Within nursing, workload is also structurally shaped by shift-based service delivery. Extended and irregular shifts can amplify physical and mental strain, disrupt recovery, and reduce schedule control. Multi-country evidence indicates that working ≥12-hour shifts is associated with higher burnout and job dissatisfaction and a stronger intention to leave (Dall'Ora et al., 2015). Beyond occupational outcomes, shift work also has implications for family functioning because it reallocates time and energy away from nonwork roles. A systematic review of shift work and work–family conflict concluded that shift workers tend to report higher work–family conflict than day

workers, with particularly elevated conflict among night-shift patterns and schedules that include weekend work; importantly, the review highlights that many studies remain correlational and that causal evidence is still limited (Wöhrmann et al., 2020). From a psychosocial standpoint, these pressures are closely connected to work–family conflict (WFC), an inter-role conflict that occurs when demands from work and family domains are mutually incompatible. Classic role theory frames work–family conflict as emerging from time-based strain and behavioral incompatibilities that make participation in one domain more difficult because of the other (Greenhaus & Beutell, 1985). In organizational psychology, WFC has been operationalized as a bidirectional construct—work interfering with family (WIF) and family interfering with work (FIW)—and measured using validated scales that have become standards in the field (Netemeyer et al., 1996). Evidence syntheses demonstrate that WFC is consistently associated with work outcomes (e.g., job dissatisfaction, burnout, turnover intentions), family outcomes (e.g., reduced family satisfaction), and general well-being outcomes (Allen et al., 2000; Amstad et al., 2011). Meta-analytic findings also clarify that antecedents of WFC are strongly rooted in work demands (e.g., workload, time pressure, schedule irregularity), while resources such as supportive supervision and social support can mitigate conflict (Byron, 2005). For married women in nursing, the implications can be more acute because professional demands intersect with culturally and practically salient domestic expectations (e.g., household management, childcare, spousal roles). In Indonesian hospital contexts, female nurses frequently carry dual responsibilities as healthcare providers and family caregivers, and shift systems can intensify role strain. Against this background, the present study focuses on female nurses at RS PKU Muhammadiyah Temanggung—an organizational setting where continuous service provision and rotating schedules may elevate workload and, in turn, increase conflict in marital and family roles.

Despite substantial global evidence on WFC, several issues remain under-resolved when the focus shifts to marital role conflict among female nurses and its linkage with subjective workload. First, many healthcare studies treat workload as an objective staffing indicator (e.g., ratios, hours), yet nurses' lived workload is also cognitive and emotional—shaped by interruptions, complexity, time pressure, and perceived performance demands. Studies indicate that subjective workload measurement can reveal important task-level burdens that staffing indicators alone may miss (Park et al., 2024). Second, while WFC is often examined in relation to burnout and turnover, fewer studies in nursing explicitly connect workload pressures to marital-role outcomes (e.g., relationship quality, marital satisfaction, marital interaction strain), even though family functioning is a major domain affected by WFC (Fellows et al., 2016). Third, cross-cultural evidence is still uneven. Much WFC theory and measurement was developed in Western organizational settings; therefore, localized evidence remains essential to validate whether established mechanisms operate similarly in specific institutional and cultural contexts, including Indonesian faithbased hospitals and the particular constraints of local shift systems. Accordingly, a general solution is to test the workload–marital role conflict relationship using (a) an established, psychologically grounded workload measure that captures mental/temporal/effort demands, and (b) a validated WFC instrument that reflects inter-role

conflict relevant to marriage and family life. This approach can provide locally actionable evidence for hospital management (e.g., shift design, staffing adjustments, supervisory support), while also contributing to the broader literature by clarifying how subjective workload maps onto marital-role conflict among married female nurses.

Several theoretical and methodological strands provide a concrete pathway for studying this relationship. The Job Demands–Resources (JD–R) model proposes that job demands (e.g., workload, time pressure) are primary drivers of strain outcomes when not adequately balanced by job resources (e.g., supervisor support, autonomy) (Bakker & Demerouti, 2007; Demerouti et al., 2001). Complementary to JD–R, Conservation of Resources (COR) theory posits that stress emerges when individuals experience resource loss (time, energy, emotional capacity) or threat of loss; high workload can deplete these resources, leaving fewer reserves for family roles and marital functioning (Hobfoll, 1989). These frameworks jointly predict that higher workload—especially when accompanied by irregular schedules—should be associated with higher work-to-family interference and broader marital role conflict. On the measurement side, research has increasingly used the NASA Task Load Index (NASA–TLX) to quantify subjective workload across mental demand, physical demand, temporal demand, perceived performance, effort, and frustration. In nursing settings, NASA–TLX has demonstrated practical utility and has been applied to ICU workload benchmarking and validity evaluations (Hoonakker et al., 2011). More recent work has extended NASA– TLX to task-level workload assessment in emergency departments, highlighting its ability to capture perceived workload in complex and interruption-heavy environments (Park et al., 2024). For marital-role conflict, Netemeyer et al.'s bidirectional WFC/FWC scale remains one of the most widely used validated measures of work–family conflict (Netemeyer et al., 1996). Further measurement development research has also provided multidimensional WFC instruments (e.g., time/strain/behavior by direction) that reinforce the conceptual richness of work–family conflict (Carlson et al., 2000). Empirically, nursing studies show that work demands and irregular schedules predict work-to-family conflict, and that WFC is linked with lower job and life satisfaction among female nurses (Yildirim & Aycan, 2008). In addition, resources matter: meta-analytic evidence indicates that social support (from work or home) is negatively associated with work–family conflict, suggesting potential organizational levers for mitigation (French et al., 2018). Extending from conflict to marital outcomes, a meta-analysis found that work–family conflict is negatively associated with couple relationship quality across samples, implying that inter-role conflict has meaningful relational costs (Fellows et al., 2016). Moreover, evidence suggests that couple communication can mediate the association between work–family conflict and marital satisfaction, highlighting pathways through which work strain translates into relationship strain (Carroll et al., 2013).

A more focused review of nursing-specific findings strengthens the rationale for this study while clarifying the gap. First, WFC is repeatedly linked with negative nurse outcomes. For example, WFC among nurses has been associated with burnout and related stress outcomes in cross-sectional pandemic-era samples (Yarifard et al., 2023). Similarly, a study in Tehran reported meaningful relationships between nurses' work–family conflict and professional

quality of life indicators, further underscoring that conflict is consequential in hospital contexts (Dilmaghani et al., 2022). Second, WFC is not only a well-being variable but also connects to performance and retention: evidence indicates that WFC relates to nurses' job performance, and social support can moderate this relationship (Wang & Tsai, 2014). At the workforce level, a meta-analytic review found a reliable relationship between nurses' work–family conflict and turnover intention, suggesting that conflict can contribute to retention risk (Yildiz & Yildiz, 2021). However, two limitations are especially salient for the present topic. (1) Workload operationalization gap: Many studies infer workload from hours, staffing ratios, or broad "job demands" indices, whereas fewer integrate validated subjective workload instruments (e.g., NASA–TLX) together with WFC in a single model focused on married female nurses. While NASA–TLX has been used to benchmark and validate nursing workload (e.g., ICU settings), its integration with marital-role conflict outcomes remains uncommon, especially in Indonesian hospital samples (Hoonakker et al., 2011). (2) Contextual gap: Evidence on workload–WFC links among nurses exists internationally (e.g., Turkey), but localized studies in Indonesian hospital contexts—particularly in specific institutions with distinctive organizational cultures and shift routines—are still limited, and the generalizability of findings across contexts cannot be assumed (Yildirim & Aycan, 2008). Therefore, the research gap can be stated as follows: There is insufficient context-specific empirical evidence in Indonesia that tests the association between nurses' subjective workload (captured through a validated workload framework) and marital role conflict/work–family conflict (captured through a validated bidirectional WFC scale) among married female nurses working in a shift-based hospital system. Addressing this gap is important because hospital workload policies (staffing, shift rotation, task allocation, supervisor support) are modifiable, and relational outcomes (marital role conflict) matter for both staff well-being and organizational sustainability.

The purpose of this study is to examine the relationship between workload and marital role conflict (operationalized through work–family conflict) among married female nurses at RS PKU Muhammadiyah Temanggung. Specifically, the study assesses whether higher perceived workload is associated with higher levels of marital role conflict experienced by nurses. This study contributes novelty in three ways. First, it emphasizes subjective workload as experienced by nurses—capturing mental, temporal, effort, and frustration-related demands—rather than relying solely on objective proxies (Hoonakker et al., 2011; Park et al., 2024). Second, it extends the nursing workload literature by focusing on a marital-role outcome domain, aligning with evidence that work–family conflict degrades couple relationship quality and marital satisfaction (Fellows et al., 2016). Third, it provides institution-specific evidence from an Indonesian hospital setting, adding to the cross-cultural validation of WFC mechanisms that have been largely developed and tested outside Indonesia (Yildirim & Aycan, 2008). Guided by role theory and supported by JD–R and COR perspectives, higher workload is expected to deplete time and energy resources, thereby increasing work-to-family interference and marital role conflict (Greenhaus & Beutell, 1985; Hobfoll, 1989; Demerouti et al., 2001). Therefore, the study hypothesizes: Higher perceived workload among married female nurses is positively associated with higher marital role conflict/work–family conflict. The study is

delimited to married female nurses working at RS PKU Muhammadiyah Temanggung and uses a quantitative correlational design. Findings are intended to inform workload management and shift system improvements at the organizational level; however, because the design is cross-sectional and relies on selfreport measures, causal claims are not made, and unmeasured variables (e.g., spouse support, childcare load, leadership style) may also influence the observed relationship.

The present article positions professional learning within these occupational and family demands as a potential educational response rather than an additional measured outcome. Professional learning here refers to structured opportunities through which nurses can develop and apply context-relevant competencies, such as stress and fatigue self-management, communication across clinical and family roles, and help-seeking and supportive team practices. Such learning may complement—but cannot substitute for—adequate staffing, fair scheduling, and supervisor support. The empirical gap addressed by the study is the association between subjective workload and work–family conflict in a local nursing sample; the associated educational gap is the need to specify which professional learning opportunities might be relevant to that association and subsequently test them. Accordingly, the primary objective is to determine the association between perceived workload and work–family conflict among married female nurses. A secondary, interpretive objective is to formulate evidence-informed priorities for future professional learning needs assessments, without presenting these priorities as directly observed participant preferences.

METHOD

Research Design

This study employed a quantitative, cross-sectional correlational design to examine the association between workload (X) and marital role conflict / work–family conflict (Y) among married female nurses. A correlational approach was selected because the research objective was to estimate the direction and strength of the relationship between naturally occurring variables without manipulating working conditions or family circumstances. The conceptual basis for the outcome construct follows classic work–family conflict theory, which frames conflict as an inter-role incompatibility between work and family demands (Greenhaus & Beutell, 1985).

Participants and Sampling

The population comprised all married female nurses employed at PKU Muhammadiyah Hospital Temanggung (Temanggung, Central Java, Indonesia) during the 2025 data-collection period. The inclusion criteria were: (a) female, (b) legally married, (c) working as a nurse at the hospital, (d) minimum tenure of ≥ 1 year, and (e) working under a shift system (morning/afternoon/night). Nurses on extended leave or not available during the survey window were not included. A total of 90 participants were selected using proportionate stratified random sampling. Stratification was applied to ensure proportional representation across relevant strata (e.g., unit/ward and/or shift category), followed by random selection within each stratum. This

procedure was chosen to improve representativeness and reduce sampling bias when the nursing workforce is distributed across operational groups with potentially different workload exposures.

Instruments and Data Collection

The data used for this study were collected by administering a self-report questionnaire pack consisting of: (1) a workload instrument based on the NASA Task Load Index (NASA–TLX) framework and (2) the Work–Family Conflict Scale. Questionnaires were distributed in coordination with unit coordinators and scheduled to minimize disruption to clinical duties. Participants completed the survey voluntarily after receiving a brief explanation of the study purpose and confidentiality protections. Instrument 1: Workload (NASA–TLX-based). Workload was measured using an instrument grounded in the NASA–TLX workload model, which conceptualizes perceived workload across six dimensions: mental demand, physical demand, temporal demand, performance, effort, and frustration (Hart & Staveland, 1988). In practice, the study computed a total workload score by aggregating dimension ratings to reflect overall perceived workload, consistent with the NASA–TLX emphasis on multidimensional subjective workload assessment (Hart & Staveland, 1988). Instrument 2: Marital Role Conflict / Work–Family Conflict (Netemeyer et al., 1996). Marital role conflict was operationalized as work–family conflict, measured using the 10-item Work–Family Conflict Scale developed by Netemeyer, Boles, and McMurrian (1996), consisting of two 5-item subscales: Workto-Family Conflict (WFC): work demands interfering with family roles; Family-to-Work Conflict (FWC): family demands interfering with work roles (Netemeyer et al., 1996). Responses were captured on a Likerttype agreement scale, and subscale scores were computed as mean scores (higher values indicating higher conflict), with an optional total index derived from the average of WFC and FWC when needed for a single overall indicator.

Data Analysis

Data were entered and analyzed using IBM SPSS (Version 24/26). The analysis proceeded in the following sequence: Data screening and preparation. The dataset was screened for completeness, entry errors, and implausible values. Descriptive summaries were produced for demographic characteristics (e.g., age group, tenure category) and for each study variable (means, standard deviations, and ranges). Assumption checks. Prior to inferential testing, assumptions relevant to Pearson correlation were evaluated: Normality of variables (and/or residuals) was assessed using Kolmogorov–Smirnov tests and distributional inspection. Linearity between workload and marital role conflict was evaluated using linearity tests (e.g., ANOVA-based deviation-from-linearity) and scatterplot inspection. These steps were conducted to justify the use of parametric correlation testing. Primary hypothesis test (correlational analysis). The main hypothesis was tested using Pearson product–moment correlation to estimate the association between workload (total workload score) and marital role conflict (overall conflict score and/or WFC/FWC indices). Statistical significance was

evaluated at $\alpha = .05$ (two-tailed). The effect size was interpreted using the magnitude of r (direction and strength).

Validity and Ethical Considerations

Construct validity (theoretical grounding): The outcome construct is grounded in work–family conflict theory describing incompatible role pressures between work and family domains (Greenhaus & Beutell, 1985). Instrument validity: The Netemeyer et al. (1996) scale is a widely used, validated measure designed explicitly to capture WFC and FWC as distinct but related constructs (Netemeyer et al., 1996). Workload construct coverage: The NASA–TLX framework supports workload measurement as multidimensional (mental, physical, temporal, performance, effort, frustration), strengthening content coverage for perceived workload in complex task environments such as healthcare (Hart & Staveland, 1988). Internal consistency reliability (recommended practice): Internal consistency (e.g., Cronbach's alpha) can be estimated for multi-item subscales (WFC and FWC, and any multi-item workload operationalization used) within the study sample to confirm acceptable reliability for the present context.

The study followed standard ethical principles for research with human participants. Data collection was conducted after obtaining formal permission from the hospital management. Participation was voluntary with informed consent, and respondents were informed that they could withdraw at any time without penalty. To protect confidentiality, questionnaires were anonymized (no personally identifying information was recorded), and results were reported only in aggregate form. Data files were stored securely and used solely for academic purposes.

Because no questionnaire, interview, or observation specifically assessed educational preferences, perceived competence gaps, training participation, or professional learning needs, those constructs were not included in the quantitative analysis. Educational implications were derived conceptually from the observed workload profile, the direction of role conflict, and the cited literature. They should therefore be treated as proposed priorities requiring subsequent needs assessment.

RESULTS AND DISCUSSION

The findings of this study clearly show that married female nurses at PKU Muhammadiyah Hospital Temanggung experienced moderate-to-high perceived workload and moderate marital role conflict, with a positive and statistically significant association between the two constructs. The respondent distribution indicates that most participants were in their prime working and family-demand years. The largest age group was 31–40 years (37.78%), followed by 41–50 years (34.44%), then 21–30 years (24.44%), and a small proportion in 51–60 years (3.33%). Tenure was also substantial: 11–20 years (34.44%) and 21–30 years (26.67%) were the most represented categories. This composition matters analytically because midcareer nurses frequently face peak job responsibility, continued shift exposure, and intensified family obligations, all of which are well-established antecedents of work–family conflict through time-

and strainbased mechanisms (Frone et al., 1992; Greenhaus & Beutell, 1985; Yildirim & Aycan, 2008).

Workload Profile

Workload was assessed with NASA–TLX on a 0–100 scale. The overall workload mean was 69.98. Table 1 summarizes the six perceived workload dimensions, with mental and temporal demands and effort receiving the highest ratings.

Table 1. NASA–TLX workload profile (N = 90)

Dimension	Mean	Reported category
Mental demand	73.2	High
Physical demand	69.4	Moderate–high
Temporal demand	71.8	High
Performance (self-rated)	67.1	Moderate
Effort	72.6	High
Frustration	65.8	Moderate

The prominence of mental demand, temporal demand, and effort indicates that perceived workload included cognitive requirements and time pressure, not merely physical activity. Such dimensions are relevant to educational planning because recovery practices, communication under pressure, and fatigue awareness may require context-sensitive reinforcement; however, the observed scores do not establish that respondents requested or lacked these competencies (Hart & Staveland, 1988; Hoonakker et al., 2011).

Work–Family Conflict Profile

As shown in Table 2, the mean score for work-to-family conflict was higher than for family-to-work conflict, consistent with more frequent perceived interference from clinical work into family roles.

Table 2. Work–family conflict profile (N = 90)

Dimension	Mean	SD	Reported category
Work-to-family conflict	2.49	1.16	Moderate
Family-to-work conflict	2.20	1.08	Low–moderate
Overall conflict	2.34	1.12	Moderate

The directional difference is consistent with role theory: professional time and energy demands can interfere with nonwork obligations, especially where shifts are relatively inflexible (Greenhaus & Beutell, 1985; Netemeyer et al., 1996). This result warrants attention to team-level work design and to opportunities for nurses to practice boundary communication and support-seeking, but does not identify a measured training deficit.

Assumptions and Association Testing

The reported Kolmogorov–Smirnov significance was 0.129; the linearity test had p = 0.002 and deviation from linearity p = 0.218. These reported diagnostics supported the use of Pearson correlation. Table 3 shows the study's primary finding.

Table 3. Association between workload and overall work–family conflict (N = 90)

Variables	Pearson r	p	95% CI	r^2
Workload and total conflict	0.311	0.003	[0.111, 0.487]	0.0967

Higher perceived workload was associated with greater work–family conflict, with a positive small-to-moderate correlation. The coefficient of determination (9.67%) indicates limited shared variance rather than a causal contribution. The cross-sectional, self-report design cannot exclude reverse effects or confounders, including family support, staffing, sleep, and schedule characteristics (Byron, 2005; Michel et al., 2011).

Interpretation in Relation to Work–Family Theory

The positive workload–conflict relationship aligns strongly with the classic work–family conflict formulation that conflict arises when time, strain, or behavior from one role makes participation in the other role more difficult (Greenhaus & Beutell, 1985). High NASA–TLX scores—especially temporal demand (71.8) and effort (72.6)—map directly onto time-based and strain-based conflict pathways. Likewise, the bidirectional operationalization (WFC/FWC) is consistent with the dominant measurement tradition in work–family research (Carlson et al., 2000; Netemeyer et al., 1996), and the present pattern (WFC higher than FWC) is consistent with meta-analytic conclusions that work-domain variables tend to relate more strongly to work-to-family interference than family-domain variables relate to family-to-work interference (Byron, 2005; Michel et al., 2011).

The results are also compatible with two dominant explanatory frameworks: Job Demands–Resources (JD–R) model: High job demands (workload, time pressure, emotional labor) elevate strain and exhaustion, especially when job resources (control, staffing adequacy, supervisor support) are insufficient. Under JD– R logic, workload increases the probability that work will "spill" into family life through fatigue and reduced recovery capacity (Bakker & Demerouti, 2007; Demerouti et al., 2001). Conservation of Resources (COR) theory: Workload threatens and consumes valued resources (time, energy, emotional capacity). When resources are depleted, individuals have less capacity to invest in family roles, increasing conflict and distress (Hobfoll, 1989). Related COR-based modeling in the work–family domain similarly emphasizes that chronic demands can translate into cross-domain strain and downstream distress (Grandey & Cropanzano, 1999).

Empirically, the findings match nursing research showing that work overload and irregular schedules are key predictors of work-to-family conflict. For example, Yildirim and Aycan (2008) found that work demands and scheduling characteristics significantly predicted WFC among nurses. The present findings also align with evidence that shift work is

systematically associated with higher work–family conflict: a systematic review concluded that shift workers generally report higher WFC than workers with regular day schedules, with night and weekend characteristics often showing elevated risk (Wöhrmann et al., 2020). Similarly, applied ergonomics research comparing healthcare workers across schedule types reported meaningful differences in work–family interface outcomes by working schedules and psychosocial resources (Mauno et al., 2015).

Professional Learning Needs: Educational Implications

The new educational emphasis concerns possible learning priorities arising from the workload and conflict pattern, not a statistically established relationship between workload and learning needs. Since perceived mental demand, temporal demand, and effort were relatively high, a first candidate learning domain is fatigue and stress self-regulation: recognizing warning signs of overload, using brief recovery techniques when clinically feasible, and knowing when to escalate safety concerns. Learning activities should be embedded in protected development time rather than added informally to already demanding shifts. The appropriate curriculum content and delivery format would need to be established by asking nurses about their actual challenges and preferences.

A second candidate domain is interpersonal and family-supportive communication. Simulated handovers, assertive negotiation of realistic task priorities, supervisor conversations about scheduling, and appropriate communication with family members could help participants reflect on competing role expectations. These are educational proposals only; work–family conflict should not be framed as an individual nurse's failure to cope. Supervisor development may be particularly relevant, because family-supportive leadership and organizational support constitute resources in the Job Demands–Resources framework (Bakker & Demerouti, 2007; Hammer et al., 2009; Kossek et al., 2011).

A third proposed domain concerns participatory professional development and continuing education design. A subsequent needs assessment could combine a short competency and learning-preference survey, focus-group discussions across shift types, and consultation with unit coordinators. Program developers could then co-design microlearning, facilitated peer discussion, and scenario-based workshops; assess feasibility during rostered hours; and evaluate changes in knowledge, practical behaviors, perceived support, and work–family conflict over time. No effectiveness claim for these activities is possible from the current dataset.

At the organizational level, these learning opportunities must be coupled with equitable task allocation, predictable rosters, adequate rest periods, and accessible support systems. A training-only intervention would not address structural time pressure and could intensify workload if delivered without protected time. The value of the present study is therefore to identify a credible rationale for a combined work-design and educational strategy, while specifying the additional evidence needed before describing particular competencies as unmet professional learning needs.

Practical Implications and Study Limitations

Even with a modest association, the results justify action because nurses are a safety-critical workforce. Several implications follow: Workload management and staffing adequacy. Hospital management should treat workload as a system variable. Evidence in nursing links shift characteristics and work design to burnout and well-being outcomes, suggesting that staffing adequacy and workload distribution matter for sustainable performance (Dall'Ora et al., 2023; Demerouti et al., 2001). Shift design and schedule predictability. Because temporal demand is high, interventions targeting scheduling can directly reduce time-based WFC: limiting consecutive night shifts, ensuring predictable rosters, protecting off-duty recovery windows, and minimizing last-minute shift changes. Evidence links long and unfavorable shift patterns with burnout and dissatisfaction outcomes (Dall'Ora et al., 2015; Wöhrmann et al., 2020). Familysupportive supervision and work–family resources. Supervisor behaviors can function as job resources that buffer demand–strain spillover. Family Supportive Supervisor Behaviors (FSSB) are a validated construct (Hammer et al., 2009), and meta-analytic evidence indicates that work–family-specific supervisory and organizational support is strongly related to lower work–family conflict (French et al., 2018; Kossek et al., 2011). Integrated occupational health: sleep and recovery. Given evidence connecting WFC, sleep disturbance, and burnout in nurses, fatigue-risk management should be integrated with work–family support (e.g., rest breaks, protected handover time, recovery education, screening for chronic sleep disruption) (Han & Kwak, 2022). Marital/family support programming. Because the outcome is marital role conflict, hospitals can ethically support nurses via counseling access (EAP-style services), couple/family communication workshops, and referral pathways—especially for shift workers in peak family-demand life stages (Allen et al., 2000).

The findings are limited to one Indonesian hospital and a cross-sectional, self-reported sample of 90 married female nurses. The original data did not include an independent measure of professional learning needs, training access, or program outcomes. Consequently, all learning priorities advanced here are interpretive recommendations. Future mixed-method research should directly measure educational needs, explore variation across wards and shifts, and test whether a protected, participatory learning program adds value to structural workload interventions.

CONCLUSION

Among 90 married female nurses, perceived workload was positively associated with work–family conflict ($r = 0.311$, $p = 0.003$). Nurses reported an average workload score of 69.98, and work-to-family interference exceeded family-to-work interference. These findings support organizational attention to workload distribution, scheduling predictability, and family-supportive supervision. They also suggest potential priorities for professional learning, including fatigue and stress self-regulation, communication, and collaborative boundary management. Because professional learning needs were not directly assessed, these priorities should be verified through a dedicated needs assessment and subsequently evaluated alongside, not instead of, changes to working conditions.

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