The Relationship Between Workload and *Work-Life Balance* on Employee Retention with Job Satisfaction as a Mediating Variable for Nurses at Hospital X in Bandung

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A R T I C L E   I N F O

A B S T R A C

This study aims to analyze the relationship between workload and work-life balance on employee retention, with job satisfaction as a mediating variable among nurses at Hospital X in Bandung. This research uses a quantitative approach with a cross-sectional design. The sample consisted of 100 nurses selected using purposive sampling. Data were collected through a Likert-scale questionnaire and analysed using Partial Least Square Structural Equation Modeling (PLS-SEM). Among the 100 nurses at Hospital X, 71% were female and 29% were male. In terms of age, most respondents were within the productive age range: 17% were aged 25–30 years, 41% aged 31–35 years, and 20% aged 36–40 years. No respondents were under 25 years, while 22% were over 40 years old. The findings highlight that improving job satisfaction through rational workload management and support for work-life balance is a crucial strategy for enhancing nurse retention. This research contributes to hospital management in designing more humanistic and sustainable policies to retain professional staff. The study shows that workoload has a significant negative effect on job satisfaction, while work-life balance has a significant positive effect. Job satisfaction positively influences employee retention and mediates the relationship between workload and work-life balance with nurse retention.

INTRODUCTION

Nurses are key healthcare workers in maintaining the quality of hospital services and patient safety. Amidst increasing demands for healthcare services, many hospitals face challenges in retaining nurses due to high-stress levels, heavy workloads, and a lack of work-life balance. Burnout and resignation intentions are becoming increasingly prevalent, especially in the post-COVID-19 pandemic, which has exacerbated psychological and physical stress in the nursing work environment (Ula et al., 2021; Maglalang et al., 2021). This issue is urgent because nurse turnover impacts the effectiveness of healthcare services and increases the workload of colleagues and hospital operational costs (Xie et al., 2024).

This study focuses on nurses at Hospital X in Bandung because the hospital is one of the major referral hospitals that has experienced relatively high nurse turnover rates over the past five years. Compared to other hospitals in the surrounding area, Hospital X has a higher workload per nurse, while support for work-life balance remains limited. This research object is selected based on the hospital's strategic significance in regional healthcare services and the urgency of developing more targeted and evidence-based workforce retention policies.

The three primary variables examined in this study are workload, work-life balance, and employee retention, with job satisfaction as the mediator variable. A high workload is correlated with emotional exhaustion and the desire to leave the job. Conversely, good work-life balance enhances psychological well-being and organisational loyalty. Both variables influence nurses' job satisfaction, determining their decision to remain in the organisation (Fitri et al., 2023; Nursani et al., 2025).

Although various studies have highlighted the importance of workload and work-life balance in the context of healthcare organisations (Fukuzaki et al., 2021; Hsu et al., 2023), few have examined the role of job satisfaction as a mediating variable in influencing nurse retention, particularly in hospitals in Indonesia. Local research that positions job satisfaction as a mediator is still minimal. Additionally, most previous studies have been separate and have not integrated the four variables into a single analytical model, especially in hospitals with different operational and managerial characteristics (Razai et al., 2023).

Based on this gap, this study offers novelty by integrating workload, work-life balance, and nurse retention through job satisfaction as a mediating variable in a structured analytical model. This study is expected to contribute theoretically to developing employee retention models in the healthcare sector and provide practical benefits for hospital management in formulating more humane, productive, and sustainable work policies. The primary objective of this study is to empirically analyse the influence of workload and work-life balance on nurse retention, with job satisfaction as a mediator, at Hospital X in Bandung.

RESEARCH METHOD

This study used a quantitative approach with a comparative causal design to analyse the effect of workload and *work-life balance* on nurse retention, mediated by job satisfaction, at Hospital X in Bandung (Sugiyono, 2018). The population of this study were all nurses at Hospital X Bandung. Using *purposive sampling*, a sample of 100 nurses was collected based on the criteria: working at Hospital X, contract/permanent status, and willing to fill out the questionnaire, considered representative for statistical analysis (Hair et al., 2017). Data were collected through a Likert scale questionnaire (1-5). Prior to hypothesis testing, the instrument was validated and rehabilitated using the KMO test (>0.5) and *Construct Reliability* (>0.70) (Hair et al., 2017). Data analysis and hypothesis testing were conducted using *Partial Least Square Structural Equation Modeling* (PLS-SEM) with SmartPLS 3.0, chosen for its ability to model complex relationships without strict distributional assumptions (Hair et al., 2017). PLS-SEM testing involves evaluating the *outer model* (convergent validity via> *loading factor of 0*.70 and AVE >0.50, discriminant validity via Fornell-Larcker, and composite reliability >0.70) and *inner model* (hypothesis testing via *p-value/t-statistics*, coefficient of determination R2, and mediation test via *bootstrap*) (Hair et al., 2017; Hayes, 2017).

Figure 1 shows the relationships between variables in this study and illustrates the conceptual framework of the research model. In this model, workload and work-life balance act as independent variables (X1 and X2), which are assumed to influence nurse retention (Y), either directly or indirectly, through job satisfaction (Z) as a mediating variable.
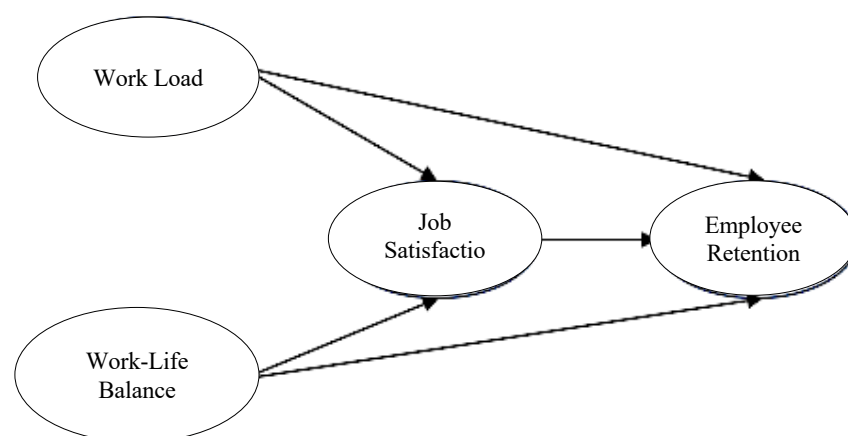

Figure 1. Inter-variable conceptual framework

RESULTS AND DISCUSSION

This section presents the results of the research data analysis and discussion of the findings obtained. These results will describe the characteristics of respondents, evaluation of the measurement model (*outer model*), and evaluation of the structural model (*inner model*), including hypothesis testing. The discussion will integrate the findings with theory and previous research to provide a comprehensive interpretation of the relationship between workload, *work-life balance*, job satisfaction, and nurse retention at Hospital X in Bandung.

Respondent Characteristics

This study involved 100 nurses who worked at Immanuel Hospital and met the inclusion criteria, such as a minimum of 6 months of service, working in a shift or non-shift system, and willing to participate voluntarily by filling out a consent form. Respondents were selected based on the exclusion criteria, namely not being on sabbatical or transitioning out, and filling out the questionnaire completely.

Table 1. Respondent Profile

Respondent Identity	Category	n	Percentage (%)
Gender	Female	71	71
	Male	29	29
Total		100	100
	< 25 years	0	0
	25 - 30 years	17	17
Age of Respondent	31 - 35 years	41	41
	36 - 40 years	20	20
	> 40 years	22	22
Total		100	100
Period of Service	< 6 months	0	0
	≥ 6 months	100	100
Total		100	100
	D3	27	27
Last Education	S1	72	72
	MASTER'S DEGREE	1	1
Total		100	100

Source: Data processed by researchers (2025)

Validity And Reliability Test

Evaluation of the measurement model is an essential step to ensure that the indicators and constructs used in the study have met the validity and reliability criteria, making them suitable for use in further hypothesis testing. The initial stage in this evaluation is convergent **validity**, which aims to assess the extent to which each indicator measures the supposed construct. Convergent validity is evaluated based on two main criteria: the *loading factor* value of each indicator (which ideally should be greater than 0.70) and the *Average Variance Extracted* (AVE) value for each construct (which ideally should be greater than 0.50). The results of the convergent validity evaluation, along with the composite reliabilities, are presented in detail in table 2.

Table 2. Convergent Validity of Workload Variables

Variables	Indicators	*Loading Factor*	AVE
	BK1	0,892	
	BK2	0,902	
Workload	BK3	0,858	0,771
	BK4	0,890	
	BK5	0,850	
	WLB1	0,863	
	WLB2	0,912	
Work-life balance	WLB3	0,898	0,789
	WLB4	0,867	
	WLB5	0,900	
	KK1	0,881	
	KK2	0,869	
Job satisfaction	KK3	0,880	0,757
	KK4	0,920	
	KK5	0,797	
	RP1	0,895	
	RP2	0,857	
Employee retention	RP3	0,918	0,803
	RP4	0,915	
	RP5	0,896	

Source: Data processed by researchers (2025)

Based on the results of the convergent validity evaluation, all indicators of the four research constructs-workload, *work-life balance*, job satisfaction, and employee retention-were declared valid. This is indicated by the *loading factor* values of all indicators that are above the 0.70 threshold (for example, workload ranges from 0.850-0.902; *work-life balance* 0.863-0.912; job satisfaction 0.797-0.920; and employee retention 0.857-0.918). In addition, the *Average Variance Extracted* (AVE) values for all constructs also exceed 0.50 (workload 0.771, *work-life balance* 0.789, job satisfaction 0.757, and employee retention 0.803), confirming that each construct has good convergent validity and can be used for further analysis.

Table 3. Heterotrait-Monotrait Ratio

Construct	BK	KK	RP	WLB
Workload (BK)	-			
Job Satisfaction (KK)	0,559			
Employee Retention (RP)	0,642	0,663		
Work-life balance (WLB)	0,533	0,636	0,642	-

Source: Data processed by researchers (2025)

Based on the *Heterotrait-Monotrait Ratio* (HTMT) test results, all values are below the 0.90 threshold, indicating that each construct in this study has good discriminant validity and is empirically different from one another.

Table 4. *Forenell-Lacker*

Construct	BK	KK	RP	WLB
Workload (BK)	0,878			
Job Satisfaction (KK)	-0,520	0,870		
Employee Retention (RP)	-0,603	0,622	0,896	
Work-life balance (WLB)	-0,498	0,598	0,606	0,888

Source: Data processed by researchers (2025)

The *Fornell-Larcker* test results show that the square root value of AVE on the diagonal is greater than the correlation between other constructs, confirming that all research constructs have good discriminant validity.

Table 5. Construct Reliability

Construct	Cronbach Alpha	Composite Reliability
Workload	0,926	0,944
Job Satisfaction	0,920	0,940
Employee Retention	0,939	0,953
Work-life balance	0,933	0,949

Source: Data processed by researchers (2025)

Cronbach's Alpha and *Composite Reliability* values for all constructs are above 0.9, including workload (Alpha 0,926, CR 0,944), confirming that all constructs in this study have very high reliability and are suitable for further analysis.

Hypothesis Testing

After measurement and structural model analysis, hypothesis testing was conducted using SmartPLS 4 (with *bootstrapping* of 5000 samples). The results of path coefficients, *t-counts*, and *P-values* for hypothesis decision making are summarised in table 6.

Table 6. Hypothesis Test Results

Influence	Path Coefficients	t-count	p-value	Decision
Workload -> Job Satisfaction	-0,295	3,015	0,003	H1 Accepted
Work-life balance -> Job Satisfaction	0,451	4,907	0,000	H2 Accepted
Job Satisfaction -> Employee Retention	0,296	2,768	0,006	H3 Accepted
Workload -> Employee Retention	-0,313	3,569	0,000	H4 Accepted
Work-life balance -> Employee Retention	0,273	2,792	0,005	H5 Accepted
Workload -> Job Satisfaction -> Employee Retention	-0,087	2,114	0,035	H6 Accepted
Work-life balance -> Job Satisfaction -> Employee Retention	0,134	2,220	0,026	H7 Accepted

Source: Data processed by researchers (2025)

After model analysis, the results show that workload has a significant negative effect on job satisfaction, while work-life balance has a significant positive effect. That is, high workload decreases satisfaction because it triggers stress, while work-life balance increases well-being and satisfaction (Safitri & Astutik, 2019; Nurjayati et al., 2024). Job satisfaction has also been shown to have a positive effect on retention, suggesting that satisfied nurses are more likely to stay (Putra et al., 2020). In addition, workload has a direct negative impact on retention, while work-life balance has a positive impact (Alzoubi et al., 2024; Alblihed & Alzghaibi, 2022). This research confirms the mediating role of job satisfaction: satisfaction dampens the negative impact of workload and strengthens the positive influence of work-life balance on retention (Tarigan & Lataruva, 2024; Nasya et al., 2024). Thus, job satisfaction is key in strengthening nurses' loyalty.

CONCLUSION

The results showed that workload had a negative impact on nurse satisfaction and retention, while work-life balance had a positive effect on both. Job satisfaction plays an important role as a mediator, reducing the negative impact of *workload* and strengthening the positive influence of *work-life balance*

on retention. This means that nurses who have high work-life balance and job satisfaction are more likely to stay in the organisation.

This study theoretically enriches the literature by confirming that workload has a significant negative impact, while *work-life balance* has a significant positive effect, on both job satisfaction and nurse retention. The main theoretical contribution lies in the evidence of the mediating role of job satisfaction, which suggests that satisfaction is a crucial mechanism in explaining how workload and *work-life balance* indirectly influence nurses' decision to stay in the organisation, adding empirical evidence of the complexity of this dynamic in nursing. Based on the research findings, Hospital X management needs to take practical steps to improve nurse retention. This includes three key areas: evaluating and adjusting nurses' workload to reduce stress, adopting policies that support *work-life balance* (such as flexible schedules and welfare programmes), and creating a supportive work environment through compensation, career development, recognition, and harmonious working relationships. Focusing on these initiatives, especially in improving job satisfaction as a key mediator, will directly and indirectly contribute to increased loyalty and retention of quality nurses.

This study has limitations because it was only conducted in one hospital, so the generalisation of the results is limited to other institutions. In addition, the scope of study variables was limited to workload, *work-life balance*, and job satisfaction, without considering other factors such as compensation or leadership that also affect nurse retention. In future research, it is recommended to add relevant variables such as organisational support or work culture (even as moderators) to broaden the insight into the influence of workload and *work-life balance* on nurse satisfaction and retention. In addition, future studies should be conducted in different types of healthcare facilities and geographical areas to improve the generalisability of the findings.

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