

The Effect of Workload, Compensation, and Job Satisfaction on Indonesian Nurses' Performance in Qatar and the United Arab Emirates

Tri Astuti¹, Kosasih², Rulia³, Vip Paramarta⁴, Farida Yuliaty⁵,
Rahadian Malik⁶, Fitriana⁷

¹Master of Program, Universitas Sangga Buana YPKP, Bandung, Indonesia

Corresponding author: **Tri Astuti**

ABSTRACT: This study examines the effects of workload, compensation, and job satisfaction on the performance of Indonesian nurses working in Qatar and the United Arab Emirates (UAE). A quantitative cross-sectional survey was conducted among 106 Indonesian nurses. Data were collected using a 57-item five-point Likert questionnaire and analyzed through descriptive statistics, instrument testing, classical-assumption diagnostics, and multiple linear regression. Workload, compensation, and job satisfaction were rated high, while self-reported nurse performance was rated very high. Workload had a positive and statistically significant association with nurse performance ($B = 0.23748$, $t = 2.5127$, $p = 0.014$), whereas compensation was not significant ($B = -0.00402$, $t = -0.0383$, $p = 0.970$). Job satisfaction had a positive and significant association with performance ($B = 0.50808$, $t = 3.7807$, $p < 0.001$). The model was significant overall ($F = 15.1$, $p < 0.001$) and explained 30.7% of the variance in performance ($R^2 = 0.307$). The positive workload coefficient should be interpreted cautiously because the workload instrument includes a performance-related NASA-TLX dimension and most respondents were experienced nurses. The findings suggest that healthcare organizations should maintain manageable workloads, strengthen career development and supervisory support, and improve the fairness and transparency of incentive systems rather than assuming that compensation alone directly improves performance.

KEYWORDS - workload, compensation, job satisfaction, nurse performance, Indonesian nurses, Qatar, United Arab Emirates

I. Introduction

Nurses constitute a central component of healthcare delivery because they provide continuous patient care, coordinate with multidisciplinary teams, monitor clinical conditions, and contribute directly to service quality and patient safety [1]. For nurses working abroad, these responsibilities are combined with the demands of adapting to different organizational systems, professional standards, languages, and multicultural work environments. Indonesian nurses employed in Qatar and the United Arab Emirates (UAE) therefore represent a relevant workforce context for examining how job demands and organizational resources are associated with performance.

Workload is one of the most visible job demands in nursing. Nursing workload includes cognitive demands, physical activity, time pressure, effort, and emotional strain [4], while the NASA Task Load Index conceptualizes workload through mental demand, physical demand, temporal demand, performance, effort, and frustration [5]. Excessive workload can contribute to fatigue and safety risks, yet job-demands perspectives also suggest that demands may produce different outcomes depending on whether employees possess sufficient resources, experience, and capacity to respond to them [3].

Compensation is an important organizational resource because it represents the financial and non-financial return received for employee contributions. It includes direct pay, incentives, benefits, and welfare facilities [6], [7]. In international employment, the perceived adequacy and fairness of compensation may be especially salient because employment packages can include salary, overtime payments, housing, health benefits, transportation, and other contractual provisions. However, compensation may not translate directly into performance when professional standards, intrinsic responsibility, or work attitudes are stronger proximal determinants.

Job satisfaction reflects employees' overall evaluation of their jobs and important job facets such as pay, promotion, supervision, co-workers, the nature of work, and communication [8]. Meta-analytic evidence has established a positive relationship between job satisfaction and performance [9]. For nurses working in multicultural and professionally demanding settings, satisfaction may support performance by strengthening motivation, commitment, teamwork, and willingness to sustain service quality.

Previous nursing studies have reported that workload is associated with patient-focused outcomes and nurse performance [11], [12], while recent studies also show that workload and job satisfaction can jointly shape nurse performance [13], [14]. Compensation and remuneration have likewise been linked to employee or health-worker outcomes in several settings [15]-[17]. Nevertheless, evidence remains limited regarding Indonesian nurses working in Qatar and the UAE, where employment conditions combine cross-cultural adjustment, demanding healthcare standards, and heterogeneous compensation arrangements. This study addresses that contextual gap by testing workload, compensation, and job satisfaction simultaneously as predictors of nurse performance among Indonesian nurses employed in the two Gulf countries.

The study has three contributions. First, it provides evidence from an understudied migrant-health-workforce context. Second, it evaluates work demands and organizational resources in one regression model rather than treating them separately. Third, it identifies an important divergence between compensation and job satisfaction: compensation was not a significant direct predictor after the other variables were controlled, whereas satisfaction remained significant. The objective is therefore to examine the partial and simultaneous effects of workload, compensation, and job satisfaction on Indonesian nurses' performance in Qatar and the UAE.

II. Literature Review and Hypothesis Development

2.1 Workload and Nurse Performance

Workload represents the amount and intensity of cognitive, physical, temporal, and emotional demands required to complete work. In nursing, workload is multidimensional because patient care requires sustained attention, rapid decisions, physical effort, documentation, and coordination [4]. The NASA-TLX framework captures these demands through mental demand, physical demand, temporal demand, perceived performance, effort, and frustration [5].

Empirical findings generally indicate that excessive workload can reduce service quality and performance when demands exceed available capacity [11], [12]. However, the relationship is not necessarily linear in every setting. Experienced employees may respond to demanding but manageable work by increasing focus and effort, particularly when organizational systems, teamwork, and professional competence are strong. Accordingly, the study tests the directional hypothesis formulated in the thesis.

H1. Workload has a positive and significant effect on nurse performance.

2.2 Compensation and Nurse Performance

Compensation comprises direct pay and broader reward components such as incentives, benefits, and welfare facilities [6], [7]. Compensation can influence performance by signaling recognition, reducing financial dissatisfaction, supporting retention, and encouraging employees to invest effort. Pay-for-performance research also emphasizes that the motivational effect of rewards depends on perceived fairness, transparency, and a credible link between contribution and reward [16].

Health-sector evidence has linked remuneration and compensation with employee outcomes [15], while other studies report significant compensation-performance relationships [17]. In international nursing employment, fair compensation may also represent organizational support because contracts often cover salary, overtime, housing, health coverage, and welfare provisions.

H2. Compensation has a positive and significant effect on nurse performance.

2.3 Job Satisfaction and Nurse Performance

Job satisfaction is a positive evaluation of one's job and its important facets [8]. Employees who are satisfied with their work, supervision, colleagues, communication, compensation, and development opportunities are more likely to maintain motivation and constructive work behavior. The positive job-satisfaction-performance association is supported by meta-analytic evidence [9].

In nursing settings, satisfaction is particularly relevant because safe and effective care depends on sustained concentration, teamwork, emotional regulation, and professional commitment. Recent studies also show that job satisfaction is associated with nurse performance and can operate as a mechanism linking workplace conditions to performance [13], [14].

H3. Job satisfaction has a positive and significant effect on nurse performance.

2.4 Joint Influence on Nurse Performance

Individual performance is multidimensional and includes task performance, contextual contributions, and the avoidance of counterproductive work behavior [10]. For nurses, these outcomes are likely to reflect both job demands and organizational resources. Workload indicates the demands that must be managed, compensation reflects organizational rewards, and job satisfaction captures employees' psychological evaluation of the work environment. Their combined contribution is therefore expected to explain meaningful variation in nurse performance.

H4. Workload, compensation, and job satisfaction simultaneously have a significant effect on nurse performance.

III. Methods

3.1 Research Design and Participants

The study used a quantitative, cross-sectional survey with descriptive and verificative approaches. The unit of analysis was the individual Indonesian nurse working in Qatar or the UAE. The thesis identified a population of 145 nurses, comprising 95 nurses in the UAE and 50 in Qatar. Using the Slovin formula with a 5% error tolerance, the planned sample was 106 respondents. In field implementation, the thesis describes proportional allocation by country combined with accidental sampling because access to the geographically dispersed population was limited [20], [21]. The final dataset contained 106 usable responses: 65 from the UAE and 41 from Qatar.

Data were collected through a self-administered questionnaire. Participation concerned nurses who were reachable during the data-collection period, and responses were treated confidentially for academic purposes. The study was not designed as a country-comparison study; country and institutional characteristics were used to describe the sample rather than as grouping variables in the regression.

3.2 Measurement

All constructs were measured using five-point Likert-type items. Workload contained 18 items covering mental demand, physical demand, temporal demand, performance, effort, and frustration, based on the NASA-TLX framework [5]. Compensation contained 12 items covering direct compensation, incentive compensation, benefits, and employee welfare [6]. Job satisfaction contained 18 items covering pay, promotion, supervision, co-workers, nature of work, and communication [8]. Nurse performance contained nine items representing task performance, contextual performance, and behavior intended to avoid counterproductive outcomes, drawing on the individual-work-performance framework [10].

The questionnaire contained 57 analytical items in total. The thesis reports that all items met the item-rest correlation validity criterion. Cronbach's alpha values were 0.895 for workload, 0.915 for compensation, 0.931 for job satisfaction, and 0.935 for nurse performance, indicating high internal consistency.

3.3 Data Analysis

Descriptive statistics were used to summarize respondent characteristics and construct scores. The thesis applied the Method of Successive Interval before parametric analysis and used multiple linear regression to examine the partial and simultaneous effects of the three predictors on nurse performance. Instrument quality was assessed through validity and reliability testing, while model diagnostics included residual normality, multicollinearity, heteroskedasticity, linearity, autocorrelation, and Cook's distance [21], [22].

Hypotheses were evaluated at a 5% significance level. Partial effects were assessed using t tests, while the joint effect of workload, compensation, and job satisfaction was evaluated using the F test. Model explanatory power was summarized using R, R², and adjusted R².

IV. Results

4.1 Respondent Characteristics

Table 1. Respondent characteristics

Characteristic	Category	n	%
Gender	Male	53	50.0

Characteristic	Category	n	%
Gender	Female	53	50.0
Age	< 25 years	4	3.8
Age	25-30 years	4	3.8
Age	31-35 years	11	10.4
Age	> 35 years	87	82.1
Country	Qatar	41	38.7
Country	United Arab Emirates	65	61.3
Tenure	< 2 years	8	7.5
Tenure	2-5 years	17	16.0
Tenure	> 5 years	81	76.4
Institution	Government hospital	50	47.2
Institution	Private hospital	9	8.5
Institution	Oil & gas company / industrial clinic	46	43.4
Institution	No response	1	0.9

The sample was balanced by gender. Most respondents were older than 35 years (82.1%) and had more than five years of work experience (76.4%). Respondents were employed mainly in government hospitals (47.2%) and oil-and-gas companies or industrial clinics (43.4%). These characteristics indicate that the sample was dominated by experienced nurses who had substantial exposure to the work systems and multicultural environments of Qatar or the UAE.

4.2 Descriptive and Measurement Results

Table 2. Descriptive results and reliability

Construct	Items	Mean	Achievement (%)	Category	Cronbach α
Workload	18	4.048	80.95	High	0.895
Compensation	12	3.487	69.73	High	0.915
Job satisfaction	18	3.648	72.97	High	0.931
Nurse performance	9	4.335	86.71	Very high	0.935

Workload was rated high and approached the upper end of the high category. The strongest workload indicators involved concentration and rapid decision making. Compensation was also high, but it had the lowest overall achievement percentage; housing, health benefits, and workplace facilities were rated more positively than performance-based bonuses, contribution-linked incentives, and pay-system fairness. Job satisfaction was high, supported by the nature of work and co-worker relationships, while promotion opportunities and promotion fairness were the weakest facets. Self-reported nurse performance was very high, particularly for accuracy, quality, teamwork, and discipline.

4.3 Regression Diagnostics and Hypothesis Testing

The reported diagnostics did not indicate major violations of the multiple-regression assumptions. Residual normality was supported by the Shapiro-Wilk result ($W = 0.984$, $p = 0.253$). VIF values ranged from 1.06 to 3.04 and tolerance values from 0.329 to 0.944, indicating no problematic multicollinearity. Visual residual checks did not show strong heteroskedastic or nonlinear patterns. The Durbin-Watson statistic was 1.80 ($p = 0.260$), and the maximum Cook's distance was 0.117.

Table 3. Multiple-regression results and hypothesis decisions

Hypothesis / Predictor	B	SE	t / F	p	Decision
H1 Workload -> Nurse performance	0.23748	0.0945	$t = 2.5127$	0.014	Supported
H2 Compensation -> Nurse performance	-0.00402	0.1049	$t = -0.0383$	0.970	Not supported
H3 Job satisfaction -> Nurse performance	0.50808	0.1344	$t = 3.7807$	<0.001	Supported
H4 Joint model	-	-	$F = 15.1$	<0.001	Supported

The estimated regression equation was $Y = 1.53455 + 0.23748X_1 - 0.00402X_2 + 0.50808X_3 + e$. The overall multiple correlation was $R = 0.554$, with $R^2 = 0.307$ and adjusted $R^2 = 0.287$. Thus, workload, compensation, and

job satisfaction jointly explained 30.7% of the variance in nurse performance. Workload and job satisfaction were significant positive predictors, whereas compensation made virtually no unique contribution after the other variables were controlled.

V. Discussion

5.1 Workload and Nurse Performance

The positive workload coefficient is notable because much of the nursing literature emphasizes the adverse consequences of excessive workload [11], [12]. The present result is closer to recent evidence reporting a positive workload-performance pathway when work demands remain manageable and employees have sufficient competence and resources [13]. In this sample, most respondents were older than 35 years and had more than five years of experience, suggesting that they may have developed routines for prioritization, shift adaptation, rapid decision making, and working within structured international healthcare systems.

However, the finding should not be interpreted as evidence that continuously increasing workload improves performance. The result applies only to the observed range of workload in this sample. Excessive and prolonged demands may still produce fatigue, psychological pressure, service errors, and patient-safety risks. An additional measurement issue is important: the NASA-TLX workload construct used in the thesis includes a performance dimension containing items about successful task completion and satisfaction with work results [5]. This conceptual proximity to the dependent performance construct may partly contribute to the positive coefficient. Replication with a workload measure that more clearly separates demands from accomplishment would strengthen inference.

5.2 Compensation and Nurse Performance

Compensation was not a significant direct predictor of nurse performance. Its coefficient was extremely small and statistically indistinguishable from zero. This result differs from studies reporting positive compensation or remuneration effects on performance [15], [17]. The descriptive results provide a possible explanation: respondents generally evaluated core benefits, housing, and facilities positively, while dissatisfaction was concentrated in incentive fairness and performance-based rewards. When basic compensation packages are already relatively adequate or show limited variation, differences in compensation perceptions may explain little additional variance in professional performance.

Nursing also operates under strong professional and ethical obligations. Nurses are expected to maintain safety, accuracy, and service standards regardless of short-term reward perceptions. Compensation may therefore affect retention, motivation, commitment, or satisfaction more readily than it affects immediate self-reported performance. Pay-for-performance research likewise emphasizes that reward effects depend on fairness, transparency, and a credible contribution-reward link [16]. The present result supports further testing of indirect mechanisms, particularly job satisfaction as a mediator between compensation and performance.

5.3 Job Satisfaction and Nurse Performance

Job satisfaction had a positive and significant relationship with nurse performance and the largest unstandardized regression coefficient in the model. This result is consistent with the broader job-satisfaction-performance literature [9] and with nursing studies showing that satisfaction supports better performance and can transmit the effects of workplace conditions to employee outcomes [13], [14].

For Indonesian nurses working abroad, satisfaction may be especially important because work is embedded in multicultural teams and takes place away from the home-country social environment. The strongest satisfaction facets in this study were co-worker relationships and the nature of work, while promotion was the weakest. Supportive teamwork, good interpersonal relationships, work that fits professional competence, clear communication, and fair supervision can help nurses sustain motivation and service quality. At the same time, unclear or unfair career opportunities may gradually undermine satisfaction even when current performance remains high.

5.4 Joint Model

The significant F test indicates that workload, compensation, and job satisfaction are collectively relevant for explaining nurse performance, although only workload and job satisfaction made significant unique contributions. This pattern demonstrates why the overall model and individual coefficients should be interpreted separately: a model can be meaningful even when one predictor has little incremental explanatory value.

The R^2 value of 0.307 indicates moderate explanatory power. Most performance variation remains outside the model and may involve clinical competence, leadership, organizational culture, motivation, psychological health, work engagement, shift patterns, safety climate, or physical working conditions. These factors were not tested and should not be treated as empirically established explanations in the present study.

VI. Theoretical Implications

The findings reinforce the importance of treating nurse performance as the product of both job demands and employee attitudes rather than assuming that a single human-resource policy determines performance. Workload can function differently depending on its level, the resources available, and employee experience, which is compatible with the broader Job Demands-Resources logic [3].

The non-significant compensation coefficient alongside the significant job-satisfaction coefficient also suggests that reward systems may influence performance through more proximal psychological mechanisms. This creates a clear direction for future models that test whether satisfaction, motivation, commitment, or retention intentions mediate compensation-related effects.

VII. Practical Implications

Healthcare organizations in Qatar and the UAE should regularly evaluate nurse staffing, patient complexity, shift duration, administrative burden, and recovery time so that high workload remains manageable rather than becoming chronic overload. Work allocation should consider competence and experience, and units with high demands should receive adequate staffing, supervision, and communication support.

Compensation systems should focus not only on salary and standard benefits but also on fairness and transparency. Performance bonuses, overtime compensation, and contribution-based incentives should have clear criteria that nurses can understand. Because promotion was the weakest dimension of job satisfaction, institutions should also provide transparent career paths, objective promotion criteria, continuing education, training, and access to professional certification.

For the Indonesian government and labor-placement organizations, pre-departure coordination with overseas employers should ensure that salary, overtime, incentives, health benefits, housing or housing allowances, transportation, and other compensation rights are clearly stated in employment contracts. This can reduce discrepancies between pre-departure information and actual employment conditions and strengthen protection for Indonesian nurses working abroad.

VIII. Limitations and Future Research

The study is cross-sectional, so the regression coefficients should not be interpreted as definitive causal effects. All focal variables were measured from the same respondents and nurse performance was self-assessed, creating potential common-method and social-desirability bias. Future research should incorporate supervisor ratings, objective quality indicators, patient-safety measures, or longitudinal designs.

The sampling procedure also limits generalization. Although the thesis used proportional targets, field recruitment relied partly on accidental sampling because the population was dispersed across two countries. The sample was dominated by nurses older than 35 years and with more than five years of experience. Multi-site studies with stronger probability-sampling frames would improve external validity.

Future research should separate the performance component from workload measurement to reduce conceptual overlap, test job satisfaction as a mediator of compensation effects, and examine additional predictors such as competence, leadership, burnout, work engagement, organizational support, safety climate, and work-life balance. Comparative analysis between Qatar and the UAE or across government hospitals, private hospitals, and industrial clinics would also be valuable if adequate group sample sizes are available.

IX. Conclusion

This study shows that workload and job satisfaction were positively and significantly associated with the self-reported performance of Indonesian nurses working in Qatar and the UAE, while compensation did not have a significant direct effect after the other predictors were controlled. The three variables jointly explained 30.7% of performance variation. The findings indicate that nurse performance should be managed through an integrated approach that balances job demands with adequate organizational support, strengthens satisfaction through supportive supervision and career development, and improves the fairness and transparency of compensation systems. The positive workload coefficient requires cautious interpretation because the workload construct included a performance-related dimension and the sample consisted largely of experienced nurses. Future longitudinal and multi-source studies are needed to establish stronger causal evidence and to clarify indirect mechanisms linking compensation and other organizational resources to performance.

Acknowledgements

The authors thank the Indonesian nurses in Qatar and the United Arab Emirates who participated in the study and Universitas Sangga Buana YPKP for academic support.

References

- [1] World Health Organization, *State of the world's nursing 2020: Investing in education, jobs and leadership* (Geneva: WHO Press, 2020).
- [2] G.S. Becker, *Human capital: A theoretical and empirical analysis with special reference to education*, 3rd ed. (Chicago: University of Chicago Press, 1993).
- [3] A.B. Bakker and J.D. de Vries, Job Demands-Resources theory and self-regulation: New explanations and remedies for job burnout, Anxiety, Stress, & Coping, 34(1), 2021, 1-21. <https://doi.org/10.1080/10615806.2020.1797695>
- [4] M.G. Alghamdi, Nursing workload: A concept analysis, *Journal of Nursing Management*, 24(4), 2016, 449-457. <https://doi.org/10.1111/jonm.12354>
- [5] S.G. Hart and L.E. Staveland, *Development of NASA-TLX: Results of empirical and theoretical research*, in *Human Mental Workload* (Amsterdam: North Holland Press, 1988).
- [6] G. Dessler, *Human resource management*, 16th ed. (New York: Pearson Education, 2020).
- [7] M. Armstrong and S. Taylor, *Armstrong's handbook of human resource management practice*, 16th ed. (London: Kogan Page, 2023).
- [8] P.E. Spector, *Job satisfaction: Application, assessment, causes and consequences* (Thousand Oaks: Sage Publications, 2022).
- [9] T.A. Judge, C.J. Thoresen, J.E. Bono, and G.K. Patton, The job satisfaction-job performance relationship: A qualitative and quantitative review, *Psychological Bulletin*, 127(3), 2001, 376-407. <https://doi.org/10.1037/0033-2909.127.3.376>
- [10] L. Koopmans, C.M. Bernaards, V.H. Hildebrandt, W.B. Schaufeli, H.C.W. De Vet, and A.J. Van der Beek, Conceptual frameworks of individual work performance: A systematic review, *Journal of Occupational and Environmental Medicine*, 53(8), 2011, 856-866. <https://doi.org/10.1097/JOM.0b013e318226a763>
- [11] P. Ross, B. Howard, D. Ilic, J. Watterson, and C.L. Hodgson, Nursing workload and patient-focused outcomes in intensive care: A systematic review, *Nursing & Health Sciences*, 25(4), 2023, 497-515. <https://doi.org/10.1111/nhs.13052>
- [12] F.B.P. Ruga, R. Kusumapradja, and R.A. Pamungkas, Impact of physical workload and mental workload on nurse performance: A path analysis, *International Journal of Nursing and Health Services*, 5(2), 2022, 219-226. <https://doi.org/10.35654/ijnhs.v5i2.604>
- [13] P. Barlian, A. Darmawan, M.A. Miftahuddin, and Amir, Job satisfaction as a mediator of workload and work stress on nurse performance at RSI PKU Muhammadiyah Tegal, *Indonesian Interdisciplinary Journal of Sharia Economics*, 8(2), 2025, 4660-4680.
- [14] A.A. Salsabila and O. Jayanegara, The effect of workload, incentives, and work motivation on nurse's performance mediated by job satisfaction, *Dinasti International Journal of Education Management and Social Science*, 6(3), 2025. <https://doi.org/10.38035/dijemss.v6i3.3821>
- [15] J. Wahyuhadi, N. Hidayah, and Q. Aini, Remuneration, job satisfaction, and performance of health workers during the COVID-19 pandemic period at the Dr. Soetomo Hospital Surabaya, Indonesia, *Psychology Research and Behavior Management*, 16, 2023, 701-711. <https://doi.org/10.2147/PRBM.S396717>
- [16] B. Gerhart and M. Fang, Pay for performance: Improving the effectiveness of compensation systems, *Academy of Management Annals*, 9(1), 2015, 489-521. <https://doi.org/10.1080/19416520.2015.1005250>
- [17] D. Alnando, Kosasih, and V. Paramarta, The influence of workload, employee compensation, and employee competence on employee performance at the Simpang Tiga Redelong District Court and the Simpang Tiga Redelong Syar'iyah Court, Bener Meriah Regency, Aceh Province, Al-Kharaj: *Journal of Islamic Economic and Business*, 7(4), 2025. <https://doi.org/10.24256/kharaj.v7i4.8287>
- [18] D.J. Hartono, Kosasih, A.L. Rahmiyati, F. Yuliatya, and V. Paramarta, The effect of load, stress and job satisfaction on the performance of health workers in the nursing home unit, *JHSS: Journal of Humanities and Social Studies*, 9(1), 2025, 143-147. <https://doi.org/10.33751/jhss.v9i1.102>
- [19] F. Yuliaty and N.P.A.Y. Dewi, The relationship between self-efficacy, job satisfaction, and medical personnel performance: A psychological review, *Amkop Management Accounting Review*, 5(2), 2025, 994-1001. <https://doi.org/10.37531/amar.v5i2.3070>
- [20] U. Sekaran and R. Bougie, *Research methods for business: A skill-building approach*, 7th ed. (New York: Wiley, 2016).
- [21] Sugiyono, *Metode penelitian kuantitatif, kualitatif, dan R&D* (Bandung: Alfabeta, 2022).

- [22] I. Ghozali, Aplikasi analisis multivariate dengan program IBM SPSS, 10th ed. (Semarang: Badan Penerbit Universitas Diponegoro, 2021).