

## The Influence of the Work Environment and Work Discipline on Nurse Performance with Motivation as a Mediating Variable at "JIH" Hospital Yogyakarta

Indah Harwanti<sup>1\*</sup>, Arief Subyantoro<sup>1</sup>, Khoirul Hikmah<sup>1</sup>

<sup>1</sup>Universitas Pembangunan Nasional Veteran Yogyakarta, Indonesia

\*Email: [indahmaila@gmail.com](mailto:indahmaila@gmail.com)

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### Abstract

This study examines the influence of the work environment and work discipline on nurse performance, with motivation as a mediating variable, at "JIH" Hospital Yogyakarta. Nurses play a critical role in healthcare service delivery, making their performance a key determinant of hospital quality and patient satisfaction. Despite structured performance evaluations, challenges such as inconsistent responsiveness and disciplinary lapses remain. Previous research presents mixed findings on the effects of work environment and discipline, as well as the mediating role of motivation, suggesting the need for further empirical investigation within the unique context of sharia-based healthcare institutions. Using a quantitative explanatory approach, data were collected from 76 permanent nurses selected through simple random sampling and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM). The results reveal that both work environment and work discipline have a positive and significant impact on nurse performance. Motivation significantly mediates these relationships, with work discipline contributing more strongly to motivational enhancement than the work environment. These findings highlight the importance of integrating effective disciplinary policies, supportive work environments, and strategic motivation management.

**Keywords** : Motivation, nurse performance, work discipline, work environment.

### 1. Introduction

Organizational performance in today's dynamic business environment is heavily dependent on effective human resource management, particularly in the healthcare sector, where nurses serve as the backbone of service delivery. As the largest workforce in Indonesian hospitals (Efendi et al., 2022), nurses significantly influence patient satisfaction, clinical outcomes, and overall hospital reputation (Saputri, 2023; Sherim & Hamidi, 2024). However, achieving optimal nurse performance remains a challenge due to multifaceted factors (Kuručová, Čáp, Bóriková, Tomagová, & Kohanová, 2025). At Rumah Sakit "JIH" Yogyakarta, despite structured performance evaluations, issues such as inconsistent responsiveness and disciplinary lapses persist, indicating a need to investigate the underlying drivers of performance gaps.

Prior research presents conflicting findings regarding the impact of work environment and discipline on performance. While some studies demonstrate a

positive correlation (Jelly, Mus, Ramlawati, & Serang, 2024; Rachmawati, Rayekti, & Wiyono, 2024), others report negative or insignificant effects (Asri & Moderin, 2024; Himamosa & Halik, 2024). Similarly, the mediating role of motivation remains contested, with some scholars affirming its significance (Putri, Widyanti, & Rina, 2023; Tirta, 2023) and others disputing it (Here, Manafe, & Hamid, 2024; Nurrahmah, Sumastuti, & Violinda, 2024). These inconsistencies suggest that contextual factors, such as the unique sharia-based performance metrics at Rumah Sakit "JIH" (e.g., Quranic literacy assessments), may influence these relationships, warranting further empirical examination.

This study aims to address these gaps by analyzing the effects of work environment and discipline on nurse performance, while also evaluating motivation's mediating role. By doing so, it seeks to reconcile theoretical contradictions and provide actionable insights for healthcare management. The findings will clarify whether improvements in workplace conditions and disciplinary policies can directly enhance performance or if their impact is channeled through motivational mechanisms. Such insights are critical for developing targeted interventions in hospital settings.

From a practical standpoint, this research offers valuable recommendations for hospital administrators to optimize nurse performance through evidence-based strategies. By identifying the most influential factors—whether environmental, disciplinary, or motivational—the study can guide policy adjustments to foster a more productive and compliant workforce. Additionally, it contributes to the broader literature on performance management in sharia-compliant healthcare institutions, where spiritual and behavioral metrics are integrated into traditional evaluation frameworks.

To achieve these objectives, the study examines four key questions: (1) Does the work environment significantly affect nurse performance? (2) Does work discipline influence performance outcomes? (3) Does motivation mediate the relationship between work environment and performance? (4) Does motivation similarly mediate the link between discipline and performance? By answering these questions, the research aims to provide a comprehensive understanding of the mechanisms driving nurse performance, ultimately supporting both theoretical advancement and practical improvements in healthcare HR management.

## **2. Research Method**

This study employs a quantitative explanatory approach to examine the causal relationships between work environment (X1), work discipline (X2), nurse performance (Y), and motivation as a mediating variable (Z). Data were collected via structured questionnaires using a 5-point Likert scale, distributed to 76 permanent

nurses at Rumah Sakit "JIH" Yogyakarta, selected through simple random sampling (Slovin formula, 10% margin of error). The constructs were operationalized based on established theories: work environment (Robbins & Judge, 2022), work discipline (Siagian, 2020), performance (Campbell, 2021), and motivation (McClelland, 1961), with each measured through validated multi-item indicators.

Data analysis was conducted using PLS-SEM (Partial Least Squares Structural Equation Modeling), chosen for its robustness in predictive causal modeling with smaller samples (Hair et al., 2014). The analysis followed a two-stage process: (1) outer model assessment to confirm convergent validity (AVE > 0.50, factor loadings > 0.70) and reliability (Cronbach’s  $\alpha$  & CR > 0.70), and (2) inner model testing to evaluate structural paths, mediation effects (bootstrapping with 5,000 resamples. Fornell-Larcker criteria and cross-loadings ensured discriminant validity.

**3. Results and Discussion**  
**3.1 Characteristics of SMEs**

**Table 1. Respondents' Identity Data**

No	Identity	Description	Number	Percentage
1	Gender	Male	12	10.43%
		Female	103	89.57%
2	Education	Diploma (D3)	70	60.87%
		Diploma (D4)	2	1.74%
		Bachelor (S1)	43	37.39%
3	Work Experience	< 5 years	12	10.43%
		5 - 10 years	40	34.78%
		> 10 years	63	54.78%
4	Age	22 - 32 years	20	17.39%
		33 - 43 years	84	73.04%
		44 - 54 years	11	9.57%

Based on Table 1, it can be observed that this study involved 115 permanent nurses (PKWTT) at “JIH” Hospital Yogyakarta. The majority of respondents were female (89.57%), or 103 individuals, reflecting the dominance of women in the nursing profession. In terms of age, most respondents were within the range of 33–43 years (73.04%), indicating that they are in their productive age. Regarding education, most respondents held a Diploma in Nursing (D3) (60.87%), with 2 respondents holding a Diploma (D4) (1.74%) and 43 respondents (37.39%) holding a Bachelor’s degree (S1), suggesting a high quality of human resources. All respondents were permanent employees, in line with the inclusion criteria of the study. Most respondents had more than ten years of work experience (54.78%), reflecting an adequate level of expertise. All respondents were Staff Nurses, directly involved in providing nursing care. These characteristics indicate that the respondents have both the educational background and experience necessary to assess variables such as work environment, work discipline, motivation, and performance.

### 3.2 Outer Model

**Table 2. Outer Loading, Validity and Reliability**

Variables	Indicator	Code	Outer Loading	Cronbach's Alpha	Composite Reliability	AVE
<b>Nurse performance</b>	1. Effectiveness	K1	0.789	0.853	0.895	0.630
	2. Efficiency	K2	0.776			
	3. Compliance with SOP	K3	0.776			
	4. Proactivity	K4	0.833			
	5. Target achievement	K5	0.794			
<b>Work discipline</b>	1. Attendance	DK1	0.765	0.824	0.877	0.587
	2. Adherence to rules	DK2	0.778			
	3. Responsibility	DK3	0.796			
	4. Obedience to superiors	DK4	0.766			
	5. Consistent work ethic	DK5	0.724			
<b>Work environment</b>	1. Physical working conditions	LK1	0.803	0.845	0.890	0.617
	2. Availability of facilities	LK2	0.786			
	3. Workplace safety	LK3	0.797			
	4. Interpersonal relations	LK4	0.752			
	5. Work atmosphere	LK5	0.790			
<b>Motivation</b>	1. Achievement	M1	0.810	0.766	0.865	0.681
	2. Affiliation	M2	0.834			
	3. Power	M3	0.831			

Table 2 demonstrates that all measurement indicators meet the required statistical thresholds, indicating that the constructs used in this study are both valid and reliable. The outer loading values for all indicators exceed 0.70, signifying that each item strongly represents its respective construct. For example, in the Nurse Performance variable, the indicators of effectiveness (K1), proactivity (K4), and target achievement (K5) show high outer loading values of 0.789, 0.833, and 0.794 respectively, which reflects their strong contribution to the measurement model. Additionally, the Cronbach's Alpha and Composite Reliability (CR) values for all variables are above the recommended minimum of 0.70 (Hair, Howard, & Nitzl, 2020), confirming internal consistency. The Average Variance Extracted (AVE) values, ranging from 0.587 to 0.681, also surpass the 0.50 threshold (Hair et al., 2020), indicating sufficient convergent validity.

These results suggest that the constructs of nurse performance, work discipline, work environment, and motivation are measured with high accuracy and reliability. The work environment variable, for instance, shows an AVE of 0.617 and a CR of 0.890, which implies that the indicators such as physical working conditions (LK1) and workplace safety (LK3) consistently represent the concept. Similarly, the motivation variable demonstrates a strong measurement structure, with achievement (M1) and affiliation (M2) showing high outer loading values of 0.810 and 0.834, respectively. Overall, the psychometric properties of the constructs are robust, providing a solid foundation for further analysis, such as examining the structural relationships among these variables in the research model.

### 3.2.1 Discriminant Validity

**Table 3. Discriminant Validity – Fornell-Larcker**

	<b>Work Discipline</b>	<b>Nurse Performance</b>	<b>Work Environment</b>	<b>Motivation</b>
Work Discipline	0.766			
Nurse performance	0.771	0.794		
Work Environment	0.695	0.743	0.786	
Motivation	0.740	0.722	0.656	0.825

The discriminant validity test using the Fornell-Larcker Criterion in Table 3 above indicates that the square root of the AVE (displayed in bold diagonal values) for each construct is greater than its correlations with other constructs. For example, the square root of AVE for the Nurse Performance variable is 0.794, which is higher than its correlation with Work Discipline (0.771), Work Environment (0.743), and Motivation (0.722). The same pattern applies to all other constructs, where the square root of AVE is higher than the inter-construct correlations. These results suggest that each construct demonstrates good discriminant validity, indicating that the variables in the model can be clearly distinguished from one another.

### 3.3 Inner Model

#### 3.3.1 Coefficient of Determination (R<sup>2</sup>)

**Table 4. R (Square) Value**

<b>R Square</b>	<b>R Square Adjusted</b>
Nurse_Performance	0.699
Motivation	0.586

Based on the Table 4 above, The R Square value indicates the extent to which independent variables contribute to explaining the dependent variables. In this analysis, the Nurse Performance variable has an R Square value of 0.699, meaning that 69.9% of the variation in nurse performance can be explained by work

environment, work discipline, and motivation. Meanwhile, the Motivation variable has an R Square value of 0.586, indicating that 58.6% of the variation in nurse motivation can be explained by work environment and work discipline. Both values fall within the strong category, leading to the conclusion that the model has good predictive capability for the examined dependent variables.

**3.3.2 F-Square (F<sup>2</sup>)**

**Table 5. F (Square) Value**

	Dis_Work	Nurse_Perf	Work_Env	Motivation
Work_Discipline		0.168		0.377
Nurse_Performance				
Work_Env		0.180		0.094
Motivation		0.072		

Table 5 presents that work discipline has a moderate effect on nurse performance ( $f^2 = 0.168$ ) and a large effect on motivation ( $f^2 = 0.377$ ). Meanwhile, the work environment has a small effect on nurse performance ( $f^2 = 0.180$ ) and a very small effect on motivation ( $f^2 = 0.094$ ). On the other hand, motivation contributes only slightly to nurse performance ( $f^2 = 0.072$ ). Based on Cohen’s (1988) classification, an  $f^2$  value of 0.02 indicates a small effect, 0.15 moderate, and 0.35 large. Thus, it can be concluded that work discipline is the dominant predictor in the model, particularly for work motivation.

**3.4 Path Coefficients and Hypothesis Results**

**Table 6. Direct and Indirect Hypotheses (Statistical and Theoretical Results)**

Code	Variable Relationship	Path Coefficient (β) / Original Sample (O)	T-Statistics	P-Value	Decision
H1	Work Discipline → Nurse Performance	0.367	4.137	0	Accepted (Significant)
H2	Work Environment → Nurse Performance	0.339	3.580	0	Accepted (Significant)
H3	Work Discipline → Motivation → Nurse Performance	0.125	2.427	0.016	Accepted (Significant)
H4	Work Environment → Motivation → Nurse Performance	0.063	2.161	0.031	Accepted (Significant)

**3.5 Discussion**

The findings of this study indicate that work discipline has a positive and significant effect on nurse performance. This result confirms the first hypothesis while addressing the research question regarding the extent of work discipline's

contribution to the performance of nursing staff at "JIH" Hospital Yogyakarta. In this study, work discipline encompasses dimensions such as attendance, adherence to regulations, responsibility, compliance with supervisors, and consistency in work ethic. Overall, the indicators of work discipline meet validity and reliability standards; however, when critically examined, the "consistent work ethic" indicator shows the weakest contribution compared to the other indicators. This suggests that while nurses generally demonstrate formal discipline, maintaining consistency in work enthusiasm and energy over time still requires managerial attention. This weakness may reflect the influence of external factors such as fluctuating workloads or unaddressed psychological fatigue. These findings support organizational behavior theories that emphasize discipline as a foundation for work performance (Calen, Nururly, Butarbutar, Simatupang, & Marto Silalahi, 2022), especially in environments demanding procedural accuracy and time discipline. Nevertheless, it is important for hospital management not only to enforce formal compliance but also to build motivational systems that sustain nurses' work spirit in the long term.

The work environment is also proven to have a positive effect on nurse performance. The examined aspects include physical work conditions, availability of facilities, work safety, interpersonal relationships, and work atmosphere. All work environment indicators are deemed valid and reliable; however, the indicator of interpersonal relationships demonstrates the lowest contribution compared to other dimensions. This implies that although physical conditions and facilities are supportive, social interactions among nurses or between nurses and supervisors are not yet fully optimal in supporting work productivity. This condition requires attention because poor workplace relationships can affect coordination and the effectiveness of patient care services. Therefore, strengthening a collective work culture and fostering professional communication are critical strategies to enhance nursing team effectiveness (Wan Mustapa, Azizan, Wei, & Wae-esor, 2024). In terms of effect magnitude, work discipline contributes slightly more to nurse performance than the work environment. This highlights that in the context of a private hospital with high service demands, aspects of individual compliance and responsibility play a more dominant role. Nonetheless, the work environment remains crucial as a supporting system for achieving optimal performance behavior (Azizah & Prahawan, 2024).

Motivation is found to mediate the relationship between both independent variables and nurse performance. In this regard, work discipline contributes more significantly to enhancing motivation compared to the work environment. This demonstrates that a well-structured work system and effective discipline management can foster an internal drive in nurses to perform optimally. Interestingly, although the work environment exerts a lower influence on motivation,

its contribution remains significant. This reinforces the argument of motivation theory that both intrinsic factors (such as responsibility and achievement) and extrinsic factors (such as work atmosphere and social relationships) play roles in shaping an individual's work intentions and performance. Thus, these findings not only support the proposed theoretical model but also provide the understanding that improving motivation is not solely dependent on internal worker factors, but is also highly influenced by organizational regulations and climate.

Based on all findings, it can be concluded that work discipline is the most dominant factor influencing nurse performance, both directly and through enhanced work motivation. However, attention to weaker indicators such as "consistent work ethic" and "interpersonal relationships" should be a priority in managerial interventions. Efforts to improve performance should not rely solely on rule enforcement but must also focus on strengthening a positive work culture and creating a psychologically and socially supportive work environment.

#### 4. Conclusion

The study concludes that work discipline and work environment both have a positive and significant impact on nurse performance at "JIH" Hospital Yogyakarta. Higher levels of discipline lead to improved performance, while a conducive work environment further supports nursing effectiveness. Additionally, work motivation significantly mediates the relationship between work discipline, work environment, and nurse performance, with work discipline contributing more strongly to motivational enhancement. These findings confirm both the direct and indirect effects of the studied variables and achieve the research objectives empirically and theoretically.

Based on these findings, it is recommended that the hospital management focus on improving nurse discipline, particularly in maintaining a consistent work ethic, through fair monitoring and continuous coaching. Creating a socially and psychologically supportive work environment, strengthening interpersonal relationships, and fostering collaborative culture are also essential. Motivation should be managed strategically by integrating reward systems, performance recognition, and career development programs to encourage optimal performance. Future research is encouraged to explore additional factors influencing nurse performance, such as leadership, workload, or job satisfaction, using a longitudinal approach to capture performance dynamics over time.

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