

The Relationship Among HRM Practices, Organizational Learning Culture, Perceived Organizational Support, Quality of Work Life, and Nurse Retention

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Abstract:

Nurse retention is an important issue in maintaining the quality of health services and workforce sustainability in hospitals. RSUP Sardjito, as one of the national referral hospitals, plays a central role in absorbing nursing personnel in Yogyakarta. However, the high proportion of contract nurses indicates the need for more appropriate organizational strategies to improve retention. This study adopts three main theories—Social Exchange Theory, Organizational Support Theory, and Job Demand-Resources Theory—as a theoretical framework to analyze the relationship among HRM practices, organizational learning culture, perceived organizational support, quality of work life, and nurse retention. It employs a quantitative approach using multiple regression analysis based on survey data collected from nurses at RSUP Sardjito. The results are expected to contribute theoretically by integrating structural, cultural, and psychosocial approaches in explaining nursing staff retention. Practically, these findings are expected to serve as a reference for hospital management and policymakers in designing strategies that support a positive work environment, enhance commitment, and increase nurses' intention to stay in their jobs sustainably.

Keywords: HRM Practices, Organizational Learning Culture, Perceived Organizational Support, Quality of Work Life, Nurse Retention.

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INTRODUCTION

Every country needs to pay attention to its health services because it represents the country's commitment to maintaining the well-being and health of their people (Hammedi et al., 2024; Organization, 2023, 2024; Spitzer et al., 2023). One of the health service facilities that needs more attention is the hospital because it functions as the main service provider for improving the community's health conditions (Akhtar et al., 2023; Endalamaw et al., 2023; Gizaw et al., 2022; Sorsdahl et al., 2023). According to the Law of the Republic of Indonesia No. 44 of 2009, hospitals are a comprehensive health service for the community in carrying out health recovery, which is carried out with a promotive, preventive, curative, and rehabilitative service approach. As an integral part of the national health system, hospitals are required to provide quality and equitable health services to all levels of society. Therefore, as a public organization, hospitals play a vital role in delivering essential services to society while facing complex challenges due to their multifaceted responsibilities, organizational structures, and dynamic operating environments (Pirrota et al., 2025).

To achieve this goal, hospitals need competent and stable health workers, one of whom is the nursing staff. Nurses are recognized as the front line in health services (Sari, 2025). The Ministry of Health also emphasizes that the welfare and quality of nurses' work greatly affect the quality of services provided to the community. Therefore, it is necessary to pay attention to the empowerment of nurses in Indonesia. Based on WHO projections, Indonesia will experience a surplus of nurses in the future, in contrast to the global trend, which predicts a

shortage of up to 4.5 million nurses by 2030 (Arlinta, 2023). This can be a challenge for Indonesia with the currently available employment utilizing the available nurses.

To ensure nurses can practise in an appropriate environment, it is first necessary to understand the classification of hospitals in Indonesia. In addition to private hospitals, public hospitals in Indonesia are categorized into four classes: class A, class B, class C, and class D. Class A public hospitals are regarded as the highest referral hospitals and are frequently referred to as central public hospitals. These institutions function as teaching hospitals, conducting vital research and offering comprehensive health services. A notable example is RSUP (National Referral Hospital within the Ministry of Health's) Sardjito in Yogyakarta, which functions as the primary teaching hospital for students of the Faculty of Medicine, Public Health, and Nursing (FKKMK) at UGM. RSUP Sardjito is open to collaboration with researchers to facilitate the advancement of the hospital.

The trend in the number of nurses working at RSUP Sardjito increases every year. However, the increase in the number of nurses does not necessarily reflect the stability of the labor force's sustainability. This phenomenon can be attributed to the significant proportion of nurses who are employed through short-term contracts. In line with Susanti et al. (2020), the turnover rate for contract nurses in Indonesian hospitals continuously increased over four years and reached 20.8% in 2019, the highest point. According to Kompier et al. (2009), contract workers do not get their job security because, although the stress level and workload are equivalent to those of permanent workers, they receive fewer benefits. Reliance on contract workers also challenges HR Management, especially in building long-term commitment. Therefore, organizations must treat them as an integral part of the team, providing clear communication, training, and career development opportunities (Kompier et al., 2009). With the right policies and a positive work culture, companies can improve the engagement, satisfaction, and well-being of contract workers, ultimately resulting in better employee retention.

The employee retention rate has been demonstrated to serve as an indicator of the health of an organisation. Losing employees can result in losing knowledge, connections, and organizational investment in human resource development (Wardhani & Hariyati, 2023). Only 38 nurses have left RSUP Sardjito in the last five years. Most are for non-voluntary reasons, such as following their spouses to move, retirement, illness, death, or moving to a new workplace as Civil Servants (PNS). This indicates that most nurses remain working for an extended period, thus creating stability in the nursing workforce at this hospital.

Based on updated BPS data, in 2023 the number of nurses working in Yogyakarta reached 2,395, while RSUP Dr. Sardjito alone employed 1,240 nurses, meaning that more than half of the total nursing workforce in the region worked at this hospital. This situation highlights RSUP Sardjito's essential role as a major absorber of nursing staff and underscores its institutional responsibility in creating a supportive work environment that strengthens nurse retention. Staffing data at RSUP Sardjito show that the majority of nurses, amounting to 72.8% of the total workforce, hold PNS or PPPK employment status, while the remaining 27.2% are non-civil servant personnel, including fixed-term contract employees (PKWT), non-civil servant permanent employees, and non-civil servant contract employees. The relatively high

proportion of PKWT employees—nearly half of all non-civil servant staff—indicates the continued reliance on short-term employment arrangements in the hospital’s nurse management system. This trend is further illustrated in the 2024 staffing data, where the number of PKWT employees increased to 288 and the number of PPPK nurses surged from 80 to 231, suggesting deliberate efforts by the organization to strengthen workforce stability. Increasing the number of nurses with government-linked employment status reflects a strategic attempt to enhance job security and ensure long-term commitment, reinforcing the notion that hospitals with robust involvement in managing, developing, and empowering their nursing workforce are more likely to deliver high-quality services to the community.

Since as early as the 1920s, employee turnover has been a central issue in organizational research, with extensive studies examining the factors influencing turnover intention and emphasizing the importance of creating positive work environments to retain qualified personnel. Nurse retention has become particularly critical in recent decades due to global health system pressures, staffing shortages, and increasing patient care demands. A search conducted using the Scopus database showed 663 journal articles related to “nurse retention,” with half published within the last ten years, indicating the growing academic attention given to this topic. However, most contributions originate from developed countries such as the United States, the United Kingdom, and Canada, while research from developing countries remains comparatively limited. Only China and Saudi Arabia appear among the top contributors from the developing world. Existing studies from countries such as Ghana, India, and Nigeria often focus on fundamental sources of dissatisfaction—including low pay, heavy workloads, burnout, and psychological strain—while research from developed nations has evolved toward more strategic and systemic approaches, such as improving leadership effectiveness, strengthening organizational support mechanisms, and fostering positive professional environments. This contrast indicates a meaningful gap in contextual understanding regarding how organizational dynamics influence nurse retention in developing countries, including Indonesia, where challenges differ significantly from those in high-income settings.

Given this gap, understanding how Human Resource Management (HRM) practices shape nurse retention is increasingly important, particularly in health systems facing workforce shortages and high turnover risk. Bibliographic studies reveal that healthcare-related HRM research is frequently associated with themes such as job satisfaction, hospital work environments, employee well-being, and quality of care, demonstrating that HRM is not merely administrative but strategic. Effective HRM—covering training, fair compensation, transparent appraisal systems, and selective recruitment—has been consistently linked to higher job satisfaction and lower turnover intention. Social Exchange Theory (SET) suggests that employees reciprocate organizational support and positive HRM practices with increased commitment and loyalty. When organizations invest in nurses through opportunities for development, equitable treatment, and supportive interactions, nurses respond with strengthened attachment to the organization. Similarly, Organizational Support Theory (OST) argues that employees’ perceptions of being valued and cared for—known as Perceived Organizational Support (POS)—are associated with increased affective commitment, reduced

stress, enhanced performance, and lower turnover intention. However, cross-cultural variations exist, as demonstrated by inconsistent findings from studies conducted in countries such as the Philippines. These theoretical frameworks together highlight the complexity of nurse retention and the importance of organizational-level factors that go beyond economics and workload management.

In addition to HRM and POS, Organizational Learning Culture (OLC) plays a crucial role in strengthening workforce stability by promoting continuous learning, collaboration, and professional development. A strong learning culture encourages nurses to improve skills, enhance goal orientation, and stay engaged with their teams, all of which contribute to long-term retention. Nursing leaders play an important role in enabling learning processes, supporting capability development, and maintaining team cohesion within the dynamic hospital environment. Employee engagement—defined as active participation, emotional investment, and psychological presence at work—is another factor closely associated with nurse retention, especially when supported by a positive and inclusive organizational climate. These elements are strongly interlinked: organizations that cultivate learning opportunities, provide support, and foster engagement are more capable of retaining highly qualified nursing staff. Furthermore, the Quality of Work Life (QWL) framework reinforces the idea that work–life balance, recognition, supportive conditions, and fair workload distribution significantly affect nurses’ decisions to stay. Studies consistently show that high QWL reduces burnout, enhances job satisfaction, and increases retention, although contextual differences—such as those reported in Saudi Arabia and other developing countries—suggest that cultural and institutional factors may mediate these relationships.

Job Demand–Resource (JD-R) Theory provides an additional lens for understanding how job resources such as support, learning opportunities, recognition, and autonomy can buffer the negative effects of high job demands commonly experienced by nurses. When job demands exceed available resources, nurses experience burnout, fatigue, and withdrawal, leading to increased turnover intention. Conversely, when challenging demands are met with adequate support, they foster stronger engagement and intrinsic motivation. Research consistently demonstrates the importance of balancing demands and resources in preventing burnout and strengthening retention, making managerial interventions essential for sustaining a healthy nursing workforce. High QWL has been shown to reduce turnover intention, with organizational commitment acting as a key mediator. However, QWL alone is not always sufficient, particularly when job control is low or when work–family conflict increases. Cultural variables, such as collectivism or long-term orientation, have also been found to influence nurses’ reactions to work stressors and their decisions to stay. Indonesia’s context adds further complexity: although the country does not lack nurses, inadequate management practices or unfavorable work environments can encourage nurses to switch workplaces or leave the profession altogether. The initial motivation of Indonesian nurses—often rooted in altruism, cultural values, and the desire to join a noble profession—may not be enough to sustain long-term retention without organizational support and effective HRM systems.

Recognizing these multidimensional influences, this study aims to integrate HRM practices, Organizational Learning Culture (OLC), Perceived Organizational Support (POS),

and Quality of Work Life (QWL) into a single comprehensive framework to explain nurse retention at RSUP Dr. Sardjito. These constructs—rooted in Social Exchange Theory (SET), Organizational Support Theory (OST), and Job Demand–Resource (JD-R) Theory—capture structural, cultural, psychosocial, and individual elements that collectively shape nurses' intentions to remain in their roles. Despite their relevance, existing literature rarely examines all these factors in combination, and studies within Indonesian hospital settings remain particularly sparse. This research therefore seeks to fill that gap by investigating whether HRM, OLC, POS, and QWL each have significant and positive effects on retention among nurses at RSUP Sardjito. Using a quantitative, deductive approach and multiple regression analysis, the study aims to provide empirical insights that can inform policymakers, hospital administrators, and the Ministry of Health in designing evidence-based strategies to reduce turnover. By understanding the interplay of organizational practices and nurse perceptions, this research contributes to broader efforts to strengthen workforce sustainability, improve healthcare service quality, and ensure that hospitals retain highly skilled nurses essential to patient care and institutional performance.

The primary aims of this study are to empirically analyze the individual and collective influence of HRM Practices, OLC, POS, and QWL on nurse retention, thereby testing the proposed integrated theoretical framework within the specific context of a major Indonesian referral hospital. This research is expected to yield significant theoretical and practical benefits. Theoretically, it seeks to contribute by providing empirical evidence that advances the integration of SET, OST, and JD-R theories in understanding healthcare workforce retention, particularly in a developing country context. It addresses a literature gap by simultaneously examining the interplay of structural, cultural, and perceptual factors affecting nurse retention in Indonesia. Practically, the findings are intended to serve as an evidence-based reference for the management of RSUP Dr. Sardjito in designing more effective HR strategies to enhance nurse commitment and reduce turnover. For broader policymakers, including the Ministry of Health, the insights can inform the development of supportive regulations and national programs aimed at creating sustainable healthcare work environments. Ultimately, by identifying key organizational levers for retention, this study contributes to efforts aimed at ensuring workforce stability, improving the quality of patient care, and strengthening the overall performance of the healthcare system.

METHOD

This study employed a quantitative research design grounded in a positivist paradigm and uses a deductive approach. It adopts a cross-sectional survey method as a mono-method quantitative strategy to test hypotheses and examine causal relationships among HRM practices, organizational learning culture, perceived organizational support, quality of work life, and nurse retention.

The population consisted of all 1,348 nurses working at RSUP Dr. Sardjito, distributed across multiple units. The sample size was determined using the Slovin formula, resulting in 308 respondents, selected through proportional stratified sampling to ensure balanced

representation from each unit. A pilot test involving 11 nurses from another hospital was conducted to verify questionnaire clarity before full distribution.

Data were collected using a structured questionnaire based on validated instruments from previous studies. The questionnaire was distributed directly to eligible respondents and measured using a 5-point Likert scale. Inclusion and exclusion criteria were applied, informed consent was obtained, and confidentiality was ensured. The instrument captured perceptions regarding HRM practices, organizational learning culture, perceived organizational support, quality of work life, and nurse retention.

Data analysis was conducted using SPSS, including descriptive statistics, validity testing (item–total correlation), reliability testing (Spearman-Brown split-half method), and classical assumption tests (normality, multicollinearity, heteroscedasticity). Hypothesis testing was performed using multiple linear regression in two models, followed by t-tests for partial effects and F-tests for simultaneous effects to determine the significance of relationships among variables.

RESULTS AND ANALYSIS

1. Descriptive Statistic

Descriptive statistics help provide a general overview of the data obtained and used in a study, making it easier to understand. The descriptive statistical measurements used in this study are minimum value, maximum value, mean, and standard deviation. The minimum and maximum values are used to determine the smallest and largest amounts of data in this study. The mean value helps determine the average data in the study. Meanwhile, standard deviation is used to determine how much the data deviates from the average.

Table 1. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
HRP.TOTAL	332	34	55	47.55	3.500
OLC.TOTAL	332	25	40	35.13	2.921
POS.TOTAL	332	21	35	28.75	2.911
QWL.TOTAL	332	23	45	37.59	3.903
NR. TOTAL	332	22	30	26.46	1.962
Valid N (listwise)	332				

Source: Primary Data Analysis, 2024

Based on the descriptive statistics presented in Table X, which summarize the responses of 332 nurses, the results indicate generally positive perceptions across all study variables. The mean score for Human Resource Management Practices (Mean = 47.55, SD = 3.50) suggests that nurses perceived HRM practices in their organizations as being well implemented, particularly in areas such as training, appraisal, and compensation. Organizational Learning Culture recorded a mean of 35.13 (SD = 2.92), indicating a supportive environment that encourages learning and professional growth. Similarly, Perceived Organizational Support (Mean = 28.75, SD = 2.91) reflects that most nurses feel moderately appreciated and cared for by their organizations. The mean score for Quality of Work Life (Mean = 37.59, SD = 3.90)

further indicates that nurses experience a positive work environment, a good work–life balance, and sufficient growth opportunities.

Additionally, the mean score for Nurse Retention ($M = 26.46$, $SD = 1.96$) is relatively high, indicating that nurses have a firm intention to remain in their current organisations. Overall, the findings reveal that the respondents’ perceptions toward HRM practices, learning culture, organizational support, and work-life quality are favorable, indicating that these factors collectively contribute to higher levels of nurse retention within healthcare institutions.

2. Classical Assumption Test

The aim of this assessment is to review the assumptions underlying the regression equation to confirm that it is suitable for predictive analysis. To evaluate the strength of the regression model, at minimum three diagnostic tests must be conducted: the Normality Test, the Heteroscedasticity Test, and the Multicollinearity Test.

1) Normality Test

Normality tests were conducted to determine whether the data used had a near-normal distribution. In this study, testing was conducted using two approaches, namely the P-P Plot method against regression standard residuals and the One-Sample Kolmogorov-Smirnov test.

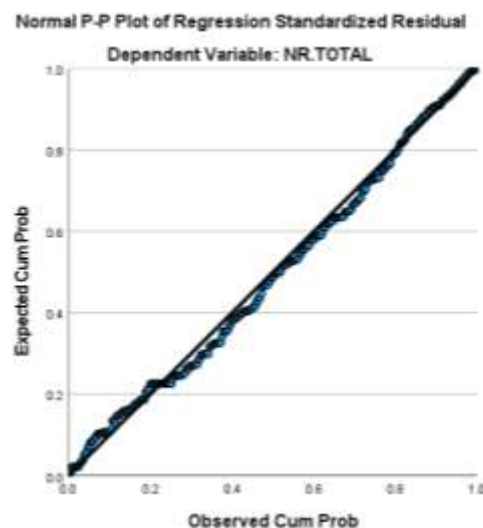


Figure 1. P-P Plot Normal Test Result

Source: Primary Data Analysis, 2024

Based on Figure 1, the data distribution pattern visualized through the histogram shows consistency with the characteristics of a normal distribution curve. In addition, the P-P Plot depicts a curve that follows a linear pattern, indicating that the data is normally distributed.

Furthermore, referring to Table IV.5, which presents the results of the Normality Test using the One-Sample Kolmogorov-Smirnov test, the criteria for determining data normality are set at a significant value of > 0.05 , indicating normally distributed data. In contrast, the value of < 0.05 indicates a deviation from normality. In this study, the significance obtained was 0.064. This indicates that the data distribution in this study meets the assumption of normal distribution.

Table 2. Normality Test with One Sample Kolmogorov-Smirnov

One-Sample Kolmogorov-Smirnov Test		Unstandardized Residual
N		332
Normal Parameters ^{a,b}	Mean	.0000000
	Std. Deviation	1.16544719
Most Extreme Differences	Absolute	.048
	Positive	.048
	Negative	-.032
Test Statistic		.048
Asymp. Sig. (2-tailed) ^c		.064

Source: Primary Data Analysis, 2024

2) Heteroscedasticity Test

A heteroscedasticity test was conducted to detect differences in variance or irregularities in the residuals for each observation in the regression model. In this study, the test was conducted to ensure that the variables used in the regression model did not exhibit heteroscedasticity issues, thereby ensuring the trustworthiness of the analysis results.

Based on Table IV.6, which displays the test results using the Glejser Test, it is known that all independent variables in this study (HRM Practices (X1), OLC (X2), POS (X3), and QWL (X4)) have a significant value greater than $\alpha = 0.05$. This finding demonstrates that the regression model is free from heteroscedasticity, meaning the assumption of equal variance is met and the regression results can be considered valid.

Table 3. Glejser Test

Model	Coefficients ^a			t	Sig.	
	Unstandardized Coefficients		Standardized Coefficients			
	B	Std. Error	Beta			
1	(Constant)	2.040	.585		3.489	.001
	HRP.TOTAL	.004	.014	.020	.292	.770
	OLC.TOTAL	-.018	.016	-.073	-1.103	.271
	POS.TOTAL	.009	.023	.039	.418	.676
	QWL.TOTAL	-.025	.017	-.141	-1.494	.136

a. Dependent Variable: ABSRES

Source: Primary Data Analysis, 2024

Additionally, heteroscedasticity can be visually assessed using a scatter plot. Based on Figure IV.4, the data points are scattered randomly, both above and below the y-axis on the zero line. This visual display reinforces the conclusion that the regression model in this study does not experience heteroscedasticity problems.

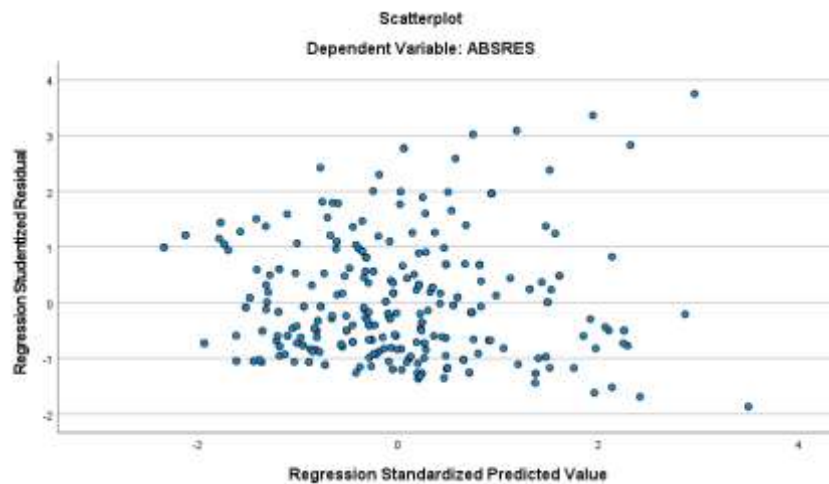


Figure 2. Scatter Plot

Source: Primary Data Analysis, 2024

3) Multicollinearity Test

The results of the multicollinearity test show that all independent variables in this study have a tolerance value greater than 0.10 and a VIF (Variance Inflation Factor) value less than 10. This means that the four variables can be used safely in regression analysis because they do not show any signs of multicollinearity.

Table 4. Multicollinearity Test

Coefficients ^a		
Model	Collinearity Statistics	
	Tolerance	VIF
1	(Constant)	
	HRP.TOTAL	1.564
	OLC.TOTAL	1.463
	POS.TOTAL	2.909
	QWL.TOTAL	2.988

Source: Primary Data Analysis, 2024

3. Multiple Regression Analysis

Regression analysis is employed to evaluate the influence of independent variables on the dependent variable. In a specific form of regression known as "multiple linear regression," various independent variables are incorporated to ascertain both the direction and magnitude of their impact on the dependent variable.

1) Regression Model 1

In this model, the relationships among four predictors (HRM Practices, Organizational Learning Culture, Perceived Organizational Support, and Quality of Work Life) were assessed in relation to Nurse Retention as dependent variable. The structure of the regression model developed in this research is presented below, derived from the statistical computations displayed in the table.

Table 5. Regression Model 1

Model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
1 (Constant)	2.943	.980	3.002	.003
HRP.TOTAL	.301	.023	13.054	.000***
OLC.TOTAL	.096	.027	3.613	.000***
POS.TOTAL	.083	.038	2.194	.029**
QWL.TOTAL	.092	.029	3.220	.001***

Standards errors in parentheses; *p<0.10, **p<0.05, ***p<0.01

Source: Primary Data Analysis, 2024

Based on the table above, the multiple linear regression equation in this study is as follows:

$$Y = 2,943 + 0,301X_1 + 0,096X_2 + 0,083X_3 + 0,092X_4 + e$$

Description:

Y: Nurse Retention

X₁: HRM Practices

X₂: Organizational Learning Culture (OLC)

X₃: Perceived Organizational Support (POS)

X₄: Quality of Work Life (QWL)

e: Error

The regression equation indicates that all independent variables have a positive and significance with nurse retention. The constant value of 2.943 suggests that when all independent variables are at zero, nurse retention remains at that baseline level. Among the variables tested, HRM Practices (X₁) with a coefficient of 0.301, indicating that improvements in HRM practices contribute most significantly to increased nurse retention. Meanwhile, OLC (X₂), POS (X₃), and QWL (X₄) also show positive contributions, although with smaller coefficients.

2) Regression Model 2

Continuing the analysis, Model 2 was then employed, incorporating both control and independent variables. The development of this model was motivated by the need to determine whether the impact of independent variables on nurse retention remained constant after the incorporation of control variables.

Table 6. Regression Model 2

Model	Unstandardized Coefficients		t	Sig.
	B	Std. Error		
1 (Constant)	2.920	.987	2.958	.003
HRP.TOTAL	.298	.023	12.782	.000***
OLC.TOTAL	.096	.027	3.536	.000***
POS.TOTAL	.088	.038	2.316	.021**
QWL.TOTAL	.091	.029	3.143	.002***
Gen X	.230	.175	1.319	.188
Gen Z	.176	.277	.636	.525
Unmarried	-.159	.226	-.705	.482
Divorced	.551	.598	.921	.358

PPPK	-0.060	.166	-.363	.717
BLU	.439	.694	.633	.527
PKWT	-.002	.303	-.006	.995

Standards errors in parentheses; *p<0.10, **p<0.05, ***p<0.01

Source: Primary Data Analysis, 2024

Based on the table above, the multiple linear regression equation in this study is as follows:

$$Y = 2,920 + 0,298X_1 + 0,096X_2 + 0,088X_3 + 0,091X_4 + 0,230C1 + 0,176 C2 - 0,159C3 + 0,551C4 - 0,060C5 + 0,439C6 - 0,002C7 + e$$

Description:

Y: Nurse Retention

X₁: HRM Practices

X₂: Organizational Learning Culture

X₃: Perceived Organizational Support

X₄: Quality of Work Life

C₁, C₂, C₃, C₄, C₅, C₆, C₇: Gen X, Gen Z, Unmarried, Divorced, PPPK, BLU, PKWT as control variables

e: Error

The regression output shows that HRM Practices remains the strongest and most significant predictor of nurse retention ($\beta = 0.298$, $p < 0.01$). This finding suggests that well-designed and effectively implemented HRM systems significantly contribute to improved retention outcomes. Organizational Learning Culture also exhibits a significant positive effect on retention ($\beta = 0.096$, $p < 0.01$), demonstrating that a learning-supported work environment helps encourage nurses to remain in the organization. Perceived Organizational Support further shows a meaningful positive influence ($\beta = 0.088$, $p < 0.05$), implying that nurses are more likely to stay when they feel valued and supported by the organization. In addition, Quality of Work-Life contributes significantly to retention ($\beta = 0.091$, $p < 0.01$), suggesting that favorable working conditions and better balance between personal and professional roles enhance retention levels.

In the regression model with Gen Y, married individuals, and PNS nurse as the reference groups, the coefficients of all demographic dummy variables were insignificant ($p > 0.05$). In other words, there is no strong statistical evidence that generation (Gen X or Gen Z), marital status (unmarried or divorced), or employment status (PPPK, BLU, or PKWT) significantly impact nurse retention once the effects of HRM practices, OLC, POS, and QWL are controlled for.

These findings contradict those of Lee et al. (2022), who demonstrated that generational differences serve as a moderating variable, with each generation having distinct reasons for staying, thereby significantly impacting retention rates. Similar findings were reported by Lee et al. (2025), who found that generational differences (Baby Boomers, Gen X, Millennials) moderate the relationship between organizational culture and exit intentions; specifically, the Millennial group showed the highest exit intentions, and a weak hierarchical culture reduced exit intentions more significantly in that group. Conversely, the results of this study are in line

with Lin et al. (2022), who included age as a control variable to ensure that the main model was not disturbed by age differences, due to Pitts et al. (2011) argument that younger employees tend to leave their jobs more easily because they usually do not have family responsibilities.

Although several studies report demographic effects on retention, the results of this study point to a different conclusion. Alshaibani et al. (2024) observed that marital status influences nurses' intention to stay and therefore recommended organizational supports such as flexible scheduling, family leave, psychosocial services, and welfare programs. Manolopoulos et al. (2022) argued that different employment contracts yield distinct organizational consequences and individual responses, underscoring the importance of distinguishing between permanent and temporary staff. Chami-Malaeb (2022) likewise found that marital status and job position were associated with turnover intention in Lebanon. Unmarried nurses and those in lower positions experienced higher burnout and a stronger intention to leave, while married nurses and those in higher positions had greater perceived support and lower burnout. However, the findings of this study align more closely with those of Islam et al. (2015), who reported no significant links between demographic characteristics and the outcomes they studied, suggesting that demographic effects may be contextual. Overall, the findings suggest that organizational and managerial factors are the primary drivers of variation in nurse retention. In contrast, demographic characteristics, such as generation (age), marital status, and employment status, do not significantly explain differences in retention. This finding confirms the robustness of the primary model employed in this study.

3) Coefficient of Determination / R Square

The coefficient of determination (R^2) test is used to determine the proportion of variation in the dependent variable that can be attributed to the independent variables in the regression model. The coefficient of determination ranges from 0 to 1, where a higher value indicates a better regression model's ability to explain the variability of data in the dependent variable.

In this study, the R square was employed to ascertain the extent to which the independent variables, namely HRM Practices (X1), OLC (X2), POS (X3), and QWL (X4), collectively explained the changes in Nurse Retention (Y). The following section details the outcomes of the coefficient of determination test in the present study:

Table 7. Model Summary (R Square)

Model Summary^b				
Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.805 ^a	.647	.643	1.173

a. Predictors: (Constant), QWL.TOTAL, OLC.TOTAL, HRP.TOTAL, POS.TOTAL
b. Dependent Variable: NR.TOTAL

Source: Primary Data Analysis, 2024

Based on the table above, an R value of 0.805 indicates a strong correlation between the independent variables collectively and the dependent variable Nurse Retention (Y). An R Square (R^2) value of 0.647 indicates that 64.7% of the variation or change in Nurse Retention

can be explained by the four independent variables simultaneously. Other factors outside the research model influence the remaining 35.3%. The Adjusted R-squared value of 0.643 indicates that, after considering the number of independent variables and sample size, the regression model still explains approximately 64.3% of the variation in Nurse Retention, suggesting that this regression model fits the research data well.

4. Hypotheses Testing (T Test and F Test)

1) T Test

The partial t-test is a statistical method used to test the significance of the effect of each independent variable on the dependent variable individually in a regression model. This test aims to determine whether each independent variable has a significant effect on the dependent variable, while controlling the effects of other variables in the model. The results of the partial t-test in this study are as follows:

Table 8. T Test Coefficient

	Model	Model 1		Model 2	
		t	Sig.	t	Sig.
1	(Constant)	3.002	.003	2.958	.003
	HRP.TOTAL	13.054	.000	2.958	.003
	OLC.TOTAL	3.613	.000	12.782	.000
	POS.TOTAL	2.194	.029	3.536	.000
	QWL.TOTAL	3.220	.001	2.316	.021
	Gen X			1.319	.188
	Gen Z			.636	.525
	Unmarried			-.705	.482
	Divorced			.921	.358
	PPPK			-.363	.717
	BLU			.633	.527
	PKWT			-.006	.995

a) Dependent Variable: Nurse Retention

b) Standards errors in parentheses; *p<0.10, **p<0.05, ***p<0.01

Source: Primary Data Analysis, 2024

Based on the results of the partial t-test, all independent variables (HRM Practices, OLC, POS, and QWL) in this study have a significant effect on the dependent variable, namely Nurse Retention (Y), as indicated by significance values (Sig.) below 0.05. The following conclusions are drawn from the research regarding the hypotheses:

First Hypothesis (H1)

Hypothesis 1 was proposed by referring to previous research, for example, research by Alajlani & Yesufu (2022) who found that HRM practices have a positive and significant relationship with retention. Based on this, this study proposes a hypothesis stating that HRM Practices (X₁) have a positive and significance relationship with Nurse Retention (Y). The results show t value of 13.054 > 1.96 (t table) and a significance value of 0.000 < 0.05. Therefore, hypothesis H1 is accepted. These results indicate that the better the implementation of HRM Practices in hospitals, the higher the nurse retention rate. In this study, respondents

indicated that HRM practices were most evident in the form of competency development, clear career paths, structured assessment systems, and rewards/incentives.

These findings are consistent with Gupta et al. (2024), HRM practices such as recruitment and selection, career development, performance appraisal, and compensation and rewards play an important role in improving healthcare worker retention. However, Gupta et al. (2024) also note that training and development alone do not always have a significant impact and need to be linked to career paths and real opportunities to be effective. Therefore, the more practical recommendations from Hogan et al. (2007) emphasize the need to change the organizational culture to be more supportive, increase recognition and rewards, implement flexible workload management, and provide holistic professional development that is integrated with the organizational strategy. Field findings by Iqbal & Rakhman (2025) at a hospital in Tangerang support these measures, emphasizing the importance of evaluating both financial and non-financial aspects, fostering open communication between management and nurses, providing opportunities for continuous career development, and cultivating a positive work culture to strengthen nurse retention.

Other empirical support shows variations in the context and mechanism of influence of HRM practices, where Azeez (2017) asserts that employee satisfaction with HRM practices can increase retention, while Hassan (2022) found in the retail sector that career development, training and development, and performance appraisal only significantly affect retention when mediated by reward and compensation, reflecting the sector's preference for material benefits. Mohamed et al. (2024) not only emphasize the strong role of compensation and recognition in retention, but also show that the effectiveness of recruitment and performance appraisal depends on the quality of their implementation. Thus, nursing administrators need to understand what nurses value most, as noted by Hayes et al. (2012). Theoretically, Social Exchange Theory (SET) provides a framework that explains how HRM practices perceived as fair and rewarding encourage reciprocity in the form of organizational commitment (Blau et al., 1964)(Bos-Nehles & Meijerink, 2018)

Second Hypothesis (H2)

The second hypothesis is based on Lin & Huang (2020) study, that emphasize the role of Organizational Learning Culture (OLC) in helping employees adapt to changes, providing the necessary support and knowledge so that they are more satisfied with their work and increase their desire to remain with the organization. This study proposes the hypothesis that OLC (X_2) has a positive and significance relationship with Nurse Retention (Y). The results show a path coefficient of 0.096 with a t-value of $3.613 > 1.96$ and a significant value of $0.000 < 0.05$. Therefore, hypothesis H2 is accepted. These results indicate that a strong organizational learning culture can increase nurse retention.

Research on the construction industry in Egypt shows that leadership style has no significant influence on work behavior because the stressful and risky nature of the job makes employees more focused on concrete factors such as compensation, career development, training, and empowerment than on their superiors' leadership style (Mohamed et al., 2024). This condition differs from the health sector, particularly in the nursing profession, where leadership support plays a crucial role in creating a stable and conducive work environment.

Align with research conducted by Banaszak-Holl et al. (2015), which confirms that an organizational culture that emphasizes teamwork and self-development plays an important role in the nursing profession, as this culture encourages nurses to learn from each other, share experiences, and work collaboratively, which ultimately increases job satisfaction and reduces the tendency to change jobs.

In this study, the items with the highest correlation values indicate that the learning practices most felt by nurses include learning through interaction with colleagues, involvement in the formulation of new policies, and support from leaders for learning and innovation. These findings demonstrate that the learning culture within an organization is primarily reflected through leadership support and collaborative opportunities that facilitate the learning process and enhance the quality of patient care.

From the perspective of Organizational Support Theory (OST), organizational learning culture can be understood as a form of organizational investment in employee capacity and well-being (Jing & Yan, 2022). When organizations consistently provide learning opportunities through training, mentoring, career development programs, and knowledge-sharing practices, employees will perceive this as a form of appreciation for their contributions and as evidence that the organization values their development (Lin & Huang, 2020). Based on OST principles, this mechanism creates a reciprocal relationship, where a learning culture not only provides structural support but also psychological support by demonstrating a real commitment to human resource development (Islam et al., 2015). Employee responses to this support typically manifest in increased engagement, a sense of competence, and a desire to reciprocate through a long-term commitment to the organization (Zeb et al., 2019).

Third Hypothesis (H3)

The third hypothesis was proposed based on previous research by Arokiasamy et al. (2024), emphasizing the importance of Perceived Organizational Support (POS) in improving employee retention. This study proposes the hypothesis that Perceived Organizational Support (X_3) has a positive and significance relationship with Nurse Retention (Y). The results show a path coefficient of 0.083 with a t-value of $2.194 > 1.96$ and a significance value of $0.029 < 0.05$. Therefore, hypothesis H3 is accepted. These results indicate that the higher an employee's perception of organizational support, the more likely they are to remain in nursing.

This result, as aligned with Chami-Malaeb (2022), encompasses aspects such as direct attention from superiors to workloads, recognition of contributions, and practical assistance when facing difficulties. According to the principles of Organizational Support Theory, the findings align with the reciprocal mechanism. This mechanism posits that organizational support signals function as psychological resources, thereby reducing work stress and enhancing feelings of appreciation. Consequently, these signals encourage heightened commitment and loyalty (Kurtessis et al., 2017).

Moreover, the findings of Zhu et al. (2023) suggest that organizational support not only enhances nurse' job satisfaction and emotional commitment but also fosters a sense of responsibility to contribute to achieving organizational goals, thereby reducing the likelihood of resignation. Mirzaei et al. (2024) research highlights the importance of enhancing nursing managers' competencies and prioritizing job satisfaction as a key component of the

organizational support system to ensure the retention of competent nursing staff and improve the quality of health services.

Although the numerical effect of POS on retention is relatively minor, implementing policies that enhance the perception of organizational support is nevertheless worthwhile due to their cumulative impact on workforce stability. The most effective systematic efforts to strengthen perceptions of support include valuing employee voices, providing flexibility in handling personal needs, and assigning jobs according to individual abilities. According to Eisenberger et al. (2020), when organizations prioritize the personal and emotional needs of nurses, it serves as a significant indicator of their commitment to the well-being of their personnel. In turn, it has a positive impact on nurse retention, aligning with the principles of Organizational Support Theory.

Fourth Hypothesis (H4)

The fourth hypothesis was proposed based on Gharaibeh et al. (2024) that emphasized the impact of Quality of Work Life (QWL) in retaining employees. This study proposed the hypothesis that Quality of Work Life (X_4) has a positive effect on Nurse Retention (Y). The results show a path coefficient of 0.092 with a t value of $3.220 > 1.96$ and a significance value of $0.001 < 0.05$. Therefore, hypothesis H4 is accepted.

In this study, nurses perceived QWL primarily through four key aspects: work–life balance, fair scheduling, adequate facilities, and effective communication with supervisors. These dimensions appear to shape how nurses evaluate their overall work-life quality. This aligns with Bell & Sheridan (2020), who found that personal factors related to balancing work and home life have a stronger association with nurses' intention to remain in the profession compared to purely organizational factors. Nurses tend to seek workplaces that align with their life stage and personal needs.

Leadership support also plays a crucial role in enhancing QWL, especially in healthcare settings. Karatepe & Türkmen (2023) emphasize that both managerial and clinical leadership play a crucial role in enhancing QWL by promoting supportive communication, encouraging feedback, and ensuring emotional and professional support. Effective communication with supervisors, therefore, becomes a crucial job resource that enhances job satisfaction and overall well-being.

Workplace conditions, including staffing, physical environment, and resource adequacy, also strongly contribute to nurses' QWL perception. Alharbi et al. (2019) reported that work context (including workplace facilities and environmental support) received the highest evaluation among QWL dimensions. Similarly, Agus & Selvaraj (2020) found that work context was a stronger predictor of retention than work-life balance, suggesting that although work-life balance is valued, the presence of supportive working conditions is more decisive in retaining nurses. When nurses experience a safe work environment, complete facilities, and strong supervisory support, they are more likely to stay.

The JD-R framework further supports this perspective. According to Kaiser et al. (2020), when organizations provide a supportive work environment and adequate job resources, it becomes one of the most effective ways for nurses and healthcare workers to maintain performance, particularly under conditions of high workload.

In addition, Buckley et al. (2025) emphasizes that sufficient staffing and flexible scheduling are essential elements of QWL and serve as critical factors influencing nurse retention. The evidence suggests that nurses are more inclined to remain in their work setting when it not only accommodates their personal needs but also ensures safe patient care delivery. Overall, the findings indicate that QWL is shaped by an interplay between personal-life compatibility, supportive leadership, adequate workplace resources, and manageable work structures. When these dimensions are present, nurses experience higher satisfaction, meaningful engagement, and a stronger intention to remain within the organization.

The statistical analysis confirms that each proposed predictor variable makes a significant contribution to explaining the variation in nurse retention. All four hypotheses were supported, demonstrating that HRM Practices, Organizational Learning Culture, Perceived Organizational Support, and Quality of Work Life exert meaningful positive relations with nurse retention. To illustrate the outcomes concisely, the final decisions for each hypothesis are summarized in Table 9.

Table 9. Summary of Hypothesis Testing Result

Hypotheses	Conclusion
H1: HRM practices have positive and significant relationship with Nurse Retention.	Accepted
H2: Organizational Learning Culture has positive and significant relationship with Nurse Retention.	Accepted
H3: Perceived Organizational Support has positive and significant relationship with Nurse Retention.	Accepted
H4: Quality of Work Life has positive and significant relationship with Nurse Retention.	Accepted

2) F Test

The simultaneous F-test is a statistical method used to test the combined or simultaneous effect of all independent variables on the dependent variable in a regression model. This test aims to determine whether the regression model is significant and capable of explaining the variation in the dependent variable.

In this study, the simultaneous F test was used to assess whether the independent variables collectively had a significant effect on Nurse Retention (Y). A regression model is said to be simultaneously significant if the calculated F value is greater than the F Table value at a significance level of $\alpha = 0.05$.

Table 10. F Test Regression Model I

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	824.905	4	206.226	149.996	.000 ^b
	Residual	449.586	327	1.375		
	Total	1274.491	331			

a. Dependent Variable: NR.TOTAL

b. Predictors: (Constant), HRP.TOTAL, OLC.TOTAL, POS.TOTAL, QWL.TOTAL

Source: Primary Data Analysis, 2024

Based on the table above, the calculated F value is $149.996 > F$ Table (2.37). In addition, the significance obtained is $0.00 < 0.05$. Therefore, it can be concluded that HRM Practices (X1), OLC (X2), POS (X3), and QWL (X4), together have a significant effect on Nurse Retention (Y).

Table 11. F Test Regression Model II

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	831.329	11	75.575	54.572	.000 ^b
	Residual	443.162	320	1.385		
Total		1274.491	331			

a. Dependent Variable: NR.TOTAL

b. Predictors: (Constant), HRP.TOTAL, OLC.TOTAL, POS.TOTAL, QWL.TOTAL, GenX, GenZ, Unmarried, Divorced, PPPK, BLU, PKWT

Source: Primary Data Analysis, 2024

Based on the statistical calculation of the F testing result in the table above, for the second regression model it can be defined that the independent variables still have a significant simultaneous relationship towards the dependent variables based on the significance value 0.000 less than 0.05 and the F count ($54.572 > F$ table (2.37)).

CONCLUSION

This study concludes that Human Resource Management (HRM) Practices, Organizational Learning Culture (OLC), Perceived Organizational Support (POS), and Quality of Work Life (QWL) each exhibit positive and significant relationships with nurse retention at RSUP Dr. Sardjito. Robust HRM implementation boosts retention substantially; a strong OLC fosters commitment and longevity; heightened POS encourages nurses to stay by affirming organizational value; and enhanced QWL motivates sustained employment through better work conditions. For future research, longitudinal studies could explore mediating roles of job satisfaction or burnout in these relationships across diverse Indonesian hospitals, incorporating qualitative insights from nurses to refine interventions amid evolving healthcare policies.

REFERENCES

- Agus, A., & Selvaraj, R. (2020). The mediating role of employee commitment in the relationship between quality of work life and the intention to stay. *Employee Relations*, 42(6), 1231–1248. <https://doi.org/10.1108/ER-07-2019-0292>
- Akhtar, M. N., Haleem, A., & Javaid, M. (2023). Scope of health care system in rural areas under Medical 4.0 environment. *Intelligent Pharmacy*, 1(4), 217–223.
- Alajlani, S., & Yesufu, L. O. (2022). Factors influencing human resource management practices. *SA Journal of Human Resource Management*, 20, 1–10. <https://doi.org/10.4102/sajhrm>
- Alshaibani, N. M., Aboshaiqah, A. E., & Alanazi, N. H. (2024). Association of job satisfaction, intention to stay, organizational commitment, and general self-efficacy among clinical nurses in Riyadh, Saudi Arabia. *Behavioral Sciences*, 14(12). <https://doi.org/10.3390/bs14121140>
- Arokiasamy, A. R. A., Vasudevan, A., Hai, S. T., & Subramaniam, K. (2024). Perceived organizational support, self-regulation, job adjustment and expatriate retention in the

- international education sector in Vietnam. *Multidisciplinary Science Journal*, 6(11). <https://doi.org/10.31893/multiscience.2024228>
- Arlinta, D. (2023, November 17). *Jumlah perawat di Indonesia bakal melebihi kebutuhan*. Kompas.id. <https://www.kompas.id/baca/humaniora/2023/11/16/jumlah-perawat-di-indonesia-bakal-melebihi-kebutuhan>
- Bell, M., & Sheridan, A. (2020). How organisational commitment influences nurses' intention to stay in nursing throughout their career. *International Journal of Nursing Studies Advances*, 2, 100007. <https://doi.org/10.1016/j.ijnsa.2020.100007>
- Buckley, L., McGillis Hall, L., Price, S., Visekruna, S., & McTavish, C. (2025). Nurse retention in peri- and post-COVID-19 work environments: A scoping review of factors, strategies and interventions. *BMJ Open*, 15(3). <https://doi.org/10.1136/bmjopen-2024-096333>
- Chami-Malaeb, R. (2022). Relationship of perceived supervisor support, self-efficacy and turnover intention: The mediating role of burnout. *Personnel Review*, 51(3), 1003–1019. <https://doi.org/10.1108/PR-11-2019-0642>
- Eisenberger, R., Rhoades Shanock, L., & Wen, X. (2020). Perceived organizational support: Why caring about employees counts. *Annual Review of Organizational Psychology and Organizational Behavior*, 7(1), 101–124. <https://doi.org/10.1146/annurev-orgpsych-012119-044917>
- Endalamaw, A., Khatri, R. B., Erku, D., Nigatu, F., Zewdie, A., Wolka, E., & Assefa, Y. (2023). Successes and challenges towards improving quality of primary health care services: A scoping review. *BMC Health Services Research*, 23(1), 893.
- Gharaibeh, M. B. A. R., Mansor, Z. B. D., & Yusof, R. N. B. R. (2024). A conceptual model of nurse retention integrating quality of work life and human resource management: The case of Jordan. *International Journal of Human Resource Studies*, 14(1), 13. <https://doi.org/10.5296/ijhrs.v14i1.21430>
- Gizaw, Z., Astale, T., & Kassie, G. M. (2022). What improves access to primary healthcare services in rural communities? A systematic review. *BMC Primary Care*, 23(1), 313.
- Gupta, R., Agrawal, R., & Gupta, A. (2024). Establishing new links between HRM practices and knowledge workers' retention in healthcare sector: Knowledge sharing generating moderating effects. *American Business Review*, 27(1), 96–115. <https://doi.org/10.37625/abr.27.1.96-115>
- Hammedi, W., Parkinson, J., & Patrício, L. (2024). SDG commentary: Services that enable well-being of the human species. *Journal of Services Marketing*, 38(2), 153–163.
- Hassan, Z. (2022). Employee retention through effective human resource management practices in Maldives: Mediation effects of compensation and rewards system. *Journal of Entrepreneurship, Management and Innovation*, 18(2), 137–173. <https://doi.org/10.7341/20221825>
- Iqbal, M., & Rakhman, S. (2025). Turnover intention among nurses and its implications for retention strategies in human resource management at Hospital X, Tangerang. *Journal Arbitrase: Economy, Management and Accounting*, 3(2), 24–30. <https://doi.org/10.58471/arbitrase.v3i02.171>
- Islam, T., Ahmed, I., & Ahmad, U. N. B. U. (2015). The influence of organizational learning culture and perceived organizational support on employees' affective commitment and turnover intention. *Nankai Business Review International*, 6(4), 417–431. <https://doi.org/10.1108/NBRI-01-2015-0002>
- Sorsdahl, K., Petersen, I., Myers, B., Zingela, Z., Lund, C., & Van der Westhuizen, C. (2023). A reflection of the current status of the mental healthcare system in South Africa. *SSM–Mental Health*, 4, 100247.
- Spitzer, D. L., Thambiah, S., Wong, Y. L., & Kaundan, M. K. (2023). Globalization and the

health and well-being of migrant domestic workers in Malaysia. *Globalization and Health*, 19(1), 29.

World Health Organization. (2023). *Population health management in primary health care: A proactive approach to improve health and well-being* (Primary health care policy paper series). WHO Regional Office for Europe.

World Health Organization. (2024). *Achieving well-being: A global framework for integrating well-being into public health utilizing a health promotion approach*. World Health Organization.