

Research Article

The Effect of Motivation and Career Development on Nurses' Performance Through Nurses' Job Satisfaction at Pertamina Balikpapan Hospital

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Abstract: This study aims to analyze the effects of work motivation and career development on nurses' performance through job satisfaction among nurses at Pertamina Balikpapan Hospital. Nurses' performance is a key determinant of service quality and patient safety because nurses interact most intensively with patients and ensure continuity of nursing care. However, prior studies on the relationships among motivation, career development, job satisfaction, and performance have reported mixed findings. Therefore, further examination is needed by incorporating job satisfaction as a mediating variable to explain the mechanism of influence more comprehensively. This research employed an explanatory design with a quantitative approach. Primary data were collected using a Likert-scale questionnaire distributed to 165 permanent nurses selected through purposive sampling from a population of 292 nurses. Data were analyzed using variance-based SEM with SmartPLS 4, including outer model evaluation (convergent and discriminant validity) and construct reliability, as well as inner model assessment through the coefficient of determination, effect size, and hypothesis testing using bootstrapping. The results indicate that work motivation has a positive and significant effect on job satisfaction, and career development also has a positive and significant effect on job satisfaction. Job satisfaction has a positive and significant effect on nurses' performance. In addition, work motivation and career development have positive and significant direct effects on nurses' performance. Indirect effect testing confirms that job satisfaction mediates the relationship between work motivation and nurses' performance and also mediates the relationship between career development and nurses' performance. These findings emphasize that hospitals should strengthen strategies to enhance motivation and career development in a targeted manner while ensuring key sources of job satisfaction so that nurses' performance improves sustainably.

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1. Background

Hospitals are healthcare organizations that play a strategic role in ensuring the continuity and quality of public healthcare services. Globally, increasing demands for quality healthcare services have placed the performance of healthcare workers, particularly nurses, as a crucial issue in modern healthcare systems. Nurses are the healthcare workers who interact most intensively with patients and play a direct role in the continuity of care. Therefore, the quality of nurse performance is crucial for patient safety and the overall quality of hospital services (Azwar, 2016; Giles, 2019). In the context of competitive healthcare services and increasing public expectations, hospitals are required to optimally manage their human resources to provide professional, effective, and sustainable services.

Nursing services, as an integral part of healthcare services, play a strategic role in determining the image and performance of hospitals. Law of the Republic of Indonesia Number 36 of 2009 concerning Health emphasizes that healthcare efforts encompass treatment and care, making nurses the primary actors in this process. Nurse performance, which reflects the quantity and quality of work in accordance with standards and operational procedures, is a crucial indicator in assessing the success of healthcare services (Afriska, 2017). Therefore, attention to the factors influencing nurse performance is highly relevant, as poor performance impacts not only patient satisfaction but also the effectiveness of the healthcare system as a whole (Fahriza et al., 2023).

Various studies have shown that nurse performance is influenced by psychological and organizational factors, particularly work motivation and career development. Work motivation is understood as the internal and external drives that influence individuals to achieve specific work goals (work motivation) (Rahayu & Dahlia, 2023). Previous studies have found that nurses with high work motivation tend to demonstrate greater commitment and productivity (Anggreini et al., 2019; Sitompul & Sentosa, 2021). Furthermore, career development through training, continuing education, and increased professional responsibility has been shown to contribute to improved professional attitudes and the quality of nursing services (Herliani et al., 2023; Alam, 2024).

Recent research confirms that the relationship between work motivation, career development, and nurse performance is complex and not always linear. Limbong and Tarigan (2024) demonstrated that motivation is a key factor supporting nurse performance, but its effectiveness can be influenced by other factors such as work stress and organizational conditions (Ayu & Hikmah, 2024). Furthermore, job satisfaction is beginning to receive attention as a crucial variable that can strengthen or weaken the influence of motivation and career development on performance (Budiharta et al., 2020; Indasari et al., 2023). However, diverse research results indicate inconsistencies in empirical findings, which opens up room for further study.

Several studies have found contradictory results, with job satisfaction having no significant effect on performance (Rohimah, 2023), work motivation having no effect on performance (Hidayat, 2021), and even career development can negatively impact nurse performance if not supported by adequate management (Herliani et al., 2023; Wahyuni et al., 2022). These differing findings indicate a research gap that has not been comprehensively addressed, particularly regarding the role of job satisfaction as a mediating variable. Therefore, the primary contribution of this study is to include job satisfaction as a mediating/intervening variable in the relationship between work motivation and career development on nurse performance, in order to enrich theoretical and empirical understanding of hospital human resource management.

Based on these empirical phenomena and research gaps, the purpose of this study is to analyze the influence of work motivation and career development on nurse performance through nurse job satisfaction at Pertamina Hospital Balikpapan. This study is designed to provide a rationale for the understanding that job satisfaction is not merely a result of organizational policies but also plays a strategic role in strengthening the effectiveness of motivation and career development programs. Thus, the research findings are expected to form the basis for formulating more targeted managerial policies to improve nurse performance sustainably.

This article is structured into several main sections. The first section reviews the theoretical foundations and previous research related to work motivation, career development, job satisfaction, and nurse performance. The second section explains the research methodology used, including the research design, data collection techniques, and analysis methods. The next section discusses the research results and empirical findings. The article concludes with a discussion of theoretical and managerial implications, as well as recommendations for hospital management and directions for further research.

2. Theoretical Studies

Work Motivation and Job Satisfaction

Work motivation is understood as a process that energizes, directs, and sustains individual behavior to achieve work goals within an organization (Leonard et al., 1999). In the context of work psychology, Self-Determination Theory (SDT) emphasizes that the quality of motivation, both intrinsic and extrinsic, determines how engaged, persistent, and meaningful an individual is in their work (Ramadhani & Etikariena, 2018). Intrinsic motivation, which stems from interest, meaning, and internal satisfaction, is often associated with more stable job satisfaction and long-term performance than extrinsic motivation, which relies on rewards or recognition (Ramadhani & Etikariena, 2018). Therefore, organizations need to manage factors that drive motivation so that employees can work with greater focus, responsibility, and consistency.

Job satisfaction is a complex and multifactorial phenomenon, influenced by the interaction between individual characteristics, supervisor support, work relationships, and work environment conditions (Hayes et al., 2010). In general, when psychological and work needs are met, individuals tend to evaluate their work positively, resulting in feelings of satisfaction. Conversely, low job satisfaction is often associated with decreased productivity and increased desire to leave the job (Sarker et al., 2003). Therefore, work motivation can be viewed as a crucial factor shaping job satisfaction, as it explains why someone is willing to put in extra effort, persist under pressure, and find meaning in their work (Cong & Van, 2013). Based on this description, the following hypothesis is proposed:

H1: Work motivation has a positive effect on job satisfaction.

Career Development and Job Satisfaction

Career development is a planned process to improve an individual's abilities, competencies, and preparedness to meet current job demands and future opportunities (Anggreni & Dewi, 2023). In organizational practice, career development encompasses not only technical training but also strengthening motivation, engagement, and work commitment, thus potentially increasing job satisfaction (Anggreni & Dewi, 2023). Career development programs are viewed as long-term investments, as organizations experience increased competency and productivity, while employees gain clarity about their career paths and opportunities for advancement.

Job satisfaction is also related to the match between job demands and an individual's abilities, interests, and circumstances. When there is a good person-job fit, individuals tend to work more diligently and enjoy their work; conversely, a mismatch can decrease work enthusiasm and impact satisfaction (Anwar, 2016). In this context, career development helps individuals improve this fit through capacity building and a clear career path. Therefore, organizations with a planned career development system tend to encourage job satisfaction because employees feel valued, supported, and have more secure prospects (Anwar, 2016). Based on this description, the following hypothesis is proposed:

H2: Career development has a positive effect on job satisfaction.

Work Motivation and Nurse Performance

Nurse performance is a crucial indicator of healthcare quality, as it directly relates to the nurse's ability to provide nursing care according to standards and patient needs. Work motivation serves as the primary driver, providing nurses with the energy, willpower, and perseverance to carry out their duties. Theoretically, strong motivation, particularly intrinsic motivation, encourages nurses to be more proactive, responsible, and consistently deliver quality service (Leonard et al., 1999; Ramadhani & Etikariena, 2018). Furthermore, a supportive work environment is also crucial because it can strengthen motivation and facilitate effective work behavior.

In the hospital context, the ward head's leadership style also influences performance, including through the creation of a positive work climate and support that motivates nurses to implement better nursing care (Trevia et al., 2019). Empirical findings also indicate that work motivation is positively related to nurse performance in inpatient wards; nurses with high motivation tend to perform better in carrying out their duties and providing services (Rosyita et al., 2021). Other research confirms that work motivation can increase discipline and commitment, which ultimately has a positive impact on nurse performance (Ambarwati et al., 2023). Therefore, hospital management strategies that strengthen work motivation are

relevant for driving improvements in service quality. Based on this description, the following hypothesis is proposed:

H3: Work motivation has a positive effect on nurse performance.

Career Development and Nurse Performance

Effective career development provides nurses with the opportunity to improve their clinical competencies, broaden their professional horizons, and strengthen their confidence in carrying out their duties. Career development also contributes to motivation because nurses perceive opportunities for growth and recognition for their professionalism (Anggreni & Dewi, 2023). Superior support for career development helps nurses explore their careers, set professional goals, and develop career strategies, thus making them feel more empowered and motivated to perform better.

Nurse performance is also influenced by leadership in the work unit, as leadership can create conditions that support optimal nursing care delivery (Trevia et al., 2019). When organizations provide a structured professional development framework, such as training, coaching, and advancement opportunities, nurses are more likely to respond appropriately to patient needs and improve the quality of their work. Thus, career development has the potential to improve nurse performance by increasing competency and work readiness, while simultaneously strengthening motivation and professional commitment (Anggreni & Dewi, 2023; Trevia et al., 2019). Based on this description, the proposed hypothesis is:

H4: Career development has a positive effect on nurse performance.

Career Development and Nurse Performance

Job satisfaction is a psychological state in which an individual positively evaluates their job, feels comfortable, and has a sense of meaning in their work role. In practice, job satisfaction is often viewed as a factor that drives productivity and job performance, as satisfied individuals tend to work harder, be more loyal, and focus more on the quality of their work (Robbins, 2008; Maharjan, 2012). Conversely, job dissatisfaction can lead to less productive work behavior and increase the likelihood of leaving a job (Sarker et al., 2003). Therefore, the relationship between job satisfaction and performance is important to explain, particularly in the nursing profession, which deals directly with service quality.

Various studies consistently demonstrate that motivational factors and career development are related to performance and job satisfaction. For example, work motivation has been found to be significantly related to job performance, indicating that motivated nurses tend to perform better (Rahmadona et al., 2021). Career development has also been reported to have a positive effect on employee performance (Sihotang, 2021), and, together with work motivation, has a positive effect on job satisfaction (Fatmala et al., 2022). In the context of nursing, career development is positively related to performance, including in nursing care documentation (Fahriza et al., 2023). Furthermore, organizational commitment and workload factors, career development, and organizational commitment can simultaneously influence the performance of nurses (Sumarni & Pramuntadi, 2019; Sopali et al., 2023).

Numerous studies also confirm that job satisfaction has a positive and significant effect on employee performance, both in healthcare and other organizational contexts (Djestawana, 2012; Ola, 2019; Hartini, 2015). Job satisfaction encompasses aspects of recognition, managerial support, clarity of core tasks and functions, and social support from coworkers (Hartini, 2015). Thus, increasing nurse job satisfaction is expected to strengthen performance, as nurses feel more comfortable, more valued, and more committed to providing services. Based on this description, the following hypothesis is proposed:

H5: Job satisfaction has a positive effect on nurse performance.

3. Research Methods

This research is explanatory research, aiming to explain causal relationships between variables through hypothesis testing using statistical analysis. Explanatory research is used to test whether there is a significant relationship between the variables studied and to strengthen the theory underlying the research (Sugiyono, 2019).

This research was designed to examine the influence of work motivation and career development on nurse performance, with job satisfaction as a mediating variable. This study was conducted among nurses at Pertamina Hospital Balikpapan, using a quantitative approach based on testing the structural relationship model between variables.

The population in this study was all nurses working at Pertamina Hospital Balikpapan. The population includes all nurses involved in healthcare services, regardless of employment status. Based on hospital data, the total population of nurses is 292.

The research sample was determined using purposive sampling, a sampling technique based on specific criteria to ensure more relevant and representative data (Rahim et al., 2023).

The sample criteria for this study were:

- 1) Nurses with permanent employee status
- 2) Nurses with sufficient work experience
- 3) Nurses who understand hospital policies and procedures

These selection criteria were intended to ensure that respondents had sufficient experience, organizational understanding, and work commitment. Based on these criteria, a sample size of 165 permanent nurses was obtained.

Primary data is data collected directly by researchers from primary sources for research purposes, through surveys, interviews, and questionnaires.

Secondary data is data already available and collected by other parties, such as reports, documents, scientific articles, books, and statistical data relevant to the research.

Primary data sources were obtained directly from respondents through structured questionnaires containing questions related to variables such as work motivation, career development, job satisfaction, and nurse performance. The use of primary data allows researchers to obtain numerical data that aligns with the research objectives (Faqih & Zuhriah, 2023).

Secondary data sources come from books, scientific journals, research reports, and official hospital documents, which are used to support the analysis and strengthen the research theory.

Data Collection Technique

Primary data collection was conducted through:

- 1) Interviews
Interviews were conducted both in person and online to obtain supporting information for the research.

- 2) Questionnaires

The questionnaire served as the primary research instrument and was distributed directly to respondents. The questionnaire was measured using a Likert scale with intervals of 1–5, as follows:

- 1 = Strongly Disagree
- 2 = Disagree
- 3 = Neutral
- 4 = Agree
- 5 = Strongly Agree

Secondary data was collected through:

- 1) Literature review, namely the collection of literature from books, journals, and scientific articles.
- 2) Documentation, namely the collection of official documents, reports, and archives relevant to the research.

Data Analysis Technique

- 1) Descriptive Analysis

Descriptive analysis was used to systematically describe data characteristics, respondent response patterns, and the distribution of research variables before conducting further analysis.

- 2) Structural Equation Modeling (SEM)

Data analysis used the Structural Equation Modeling (SEM) method with the assistance of LISREL software. SEM was used to test causal relationships, validity, reliability, and direct and indirect influences between variables (Ferdinand, 2009). SEM analysis included:

- a) Confirmatory Factor Analysis (CFA) to test construct and indicator validity (Long, 1983).
- b) Regression weights to test the strength of the relationship between latent variables.

The SEM model was evaluated using goodness of fit indices, namely RMSEA, GFI, AGFI, CMIN/DF, TLI, and CFI (Hair et al., 1995; Arbuckle, 1997; Browne & Cudeck, 1993; Ferdinand, 2009).

3) Mediation Test (Sobel Test)

The Sobel test was used to examine the role of job satisfaction as a mediating variable between work motivation and career development on nurse performance. The test was conducted using calculations for the Sobel test, with a significance criterion of two-tailed probability <0.05 (Ghozali, 2013). This test aims to determine whether job satisfaction significantly mediates the relationship between the independent and dependent variables in the research model.

4. Result and Discussion

Result

Data collection was carried out by distributing questionnaires to nurses at Pertamina Balikpapan Hospital in 2025. The questionnaire return rate showed a very good response, so that all data could be processed.

Table 1. Results of Data Distribution.

Information	Amount	Percentage
Questionnaires distributed	165	100%
Returned questionnaire	165	100%
Processable questionnaire	165	100%

This study involved 165 respondents, all of whom were nurses at Pertamina Balikpapan Hospital.

Table 2. Respondent Characteristics.

Characteristics	Category	Frequency	Percentage
Age	20–30 years	40	24.2%
	30–40 years	51	30.9%
	41–50 years	56	33.9%
	> 50 years	18	11.0%
	Total	165	100%
Gender	Woman	98	59.4%
	Man	67	40.6%
	Total	165	100%
Education	Diploma III	68	41.2%
	S1	93	56.4%
	S2	4	2.4%
	Total	165	100%
Years of service	1–5 years	28	17.0%
	6–10 years	48	29.1%
	11–15 years	68	41.2%
	16–20 years	21	12.7%
	Total	165	100%

Based on Table 2, the majority of respondents were aged 41–50 years (33.9%), indicating a predominance of productive age. Respondents were predominantly female nurses (59.4%), reflecting the tendency for women to be more interested in the nursing profession. In terms of education, the majority had a bachelor's degree (56.4%), indicating relatively good academic capacity. The most years of service were in the range of 11–15 years (41.2%), indicating strong work experience and the potential to support more stable nursing duties.

Description of Research Variables (Descriptive Analysis)
 Measurement of respondent perceptions using an index with categories:
 High/good category: $X \geq \text{Mean} + \text{SD}$
 Moderate/sufficient category: $(\text{Mean} - \text{SD}) < X < (\text{Mean} + \text{SD})$
 Low/poor category: $X \leq \text{Mean} - \text{SD}$
 With class interval = 5 and mean = 3, then the category index is:

Table 3. Variable Index Values.

No	Index Value	Category
1	$X \geq 3.67$	High / Good
2	$2.33 < X < 3.67$	Moderate / Sufficient
3	$X \leq 2.33$	Low / Less

The average work motivation variable score was 4.0 (high category). The highest indicator was working conditions (4.2), while the lowest indicator was individual potential development (3.8). These findings indicate that the work environment is considered supportive, but the individual potential development aspect still needs strengthening.

The average score for the career development variable was 4.0 (good). The highest indicator was work experience (4.1), while the lowest was training (3.7). This indicates that respondents' work experience was a key asset, but training programs were deemed suboptimal (Anwar, 2016).

The average job satisfaction variable score was 4.0 (high category). The highest indicator was the work itself (4.1), while the lowest indicator was salary/wages (3.8). This means that intrinsic satisfaction with the profession is strong, but compensation remains a concern.

The average nurse performance variable score was 4.0 (high category). The highest indicator was work quality (4.2), while the lowest was attendance (3.7). This indicates a good focus on service quality, but attendance discipline still needs improvement.

The analysis was conducted using variance-based SEM with the SmartPLS 4 application. The stages include evaluation of the measurement (outer) model and structural (inner) model, as well as hypothesis testing through the bootstrapping procedure.

Convergent validity testing is seen from the loading factor value; general criteria state that an indicator is valid if the loading factor is > 0.70 (Hair et al., 2019).

Table 4. Loading Factor Results.

Variables	Indicator	Loading factor	Information
Work motivation	MK1	0.756	Valid
	MK2	0.812	Valid
	MK3	0.768	Valid
	MK4	0.899	Valid
	MK5	0.789	Valid
Career Development	PK1	0.958	Valid
	PK2	0.776	Valid
	PK3	0.912	Valid
	PK4	0.868	Valid
	PK5	0.815	Valid
	PK6	0.811	Valid
Job satisfaction	KK1	0.812	Valid
	KK2	0.832	Valid
	KK3	0.765	Valid
	KK4	0.811	Valid
Nurse Performance	KP1	0.832	Valid
	KP2	0.881	Valid
	KP3	0.762	Valid
	KP4	0.865	Valid
	KP5	0.866	Valid

Based on the table above, it is clear that the value of each indicator is greater than 0.70, thus considered valid. This indicates that the questionnaire questions were sufficiently understood by respondents, and the questionnaire was able to accurately and realistically measure its objectives.

Discriminant validity was evaluated through cross loading and Average Variance Extracted (AVE) values. Discriminant validity is the test that a measuring instrument accurately measures the construct it is intended to measure, and not another construct. Instrument validity is determined not only by convergent validity but also by discriminant validity. Discriminant validity can be tested using cross-loading and AVE values.

Table 5. Cross Loading Values.

Indicator	Variables				Decision
	MK	PK	KK	KP	
MK1	0.863	0.605	0.409	0.432	MK1 (MK > PK, KK, KP = valid)
MK2	0.887	0.653	0.446	0.441	MK2 (MK > PK, KK, KP = valid)
MK3	0.868	0.701	0.406	0.541	MK3 (MK > PK, KK, KP = valid)
MK4	0.865	0.639	0.276	0.561	MK4 (MK > PK, KK, KP = valid)
MK5	0.843	0.640	0.211	0.325	MK5 (MK > PK, KK, KP = valid)
PK1	0.562	0.785	0.476	0.453	PK1 (PK > MK, KK, KP = valid)
PK2	0.341	0.859	0.659	0.425	PK2 (PK > MK, KK, KP = valid)
PK3	0.302	0.897	0.597	0.349	PK3 (PK > MK, KK, KP = valid)
PK4	0.347	0.768	0.503	0.405	PK4 (PK > MK, KK, KP = valid)
PK5	0.316	0.815	0.427	0.347	PK5 (PK > MK, KK, KP = valid)
PK6	0.488	0.674	0.291	0.810	PK6 (PK > MK, KK, KP = valid)
KK1	0.347	0.468	0.703	0.405	KK1 (KK > MK, PK, KP = valid)
KK2	0.316	0.315	0.627	0.347	KK2 (KK > MK, PK, KP = valid)
KK3	0.488	0.574	0.791	0.810	KK3 (KK > MK, PK, KP = valid)
KK4	0.470	0.589	0.894	0.848	KK4 (KK > MK, PK, KP = valid)
KP1	0.302	0.438	0.397	0.749	KP1 (KP > MK, KK, PK = valid)
KP2	0.347	0.468	0.403	0.605	KP2 (KP > MK, KK, PK = valid)
KP3	0.316	0.315	0.527	0.847	KP3 (KP > MK, KK, PK = valid)
KP4	0.488	0.574	0.291	0.810	KP4 (KP > MK, KK, PK = valid)
KP5	0.470	0.589	0.394	0.848	KP5 (KP > MK, KK, PK = valid)

The table above shows that the loading factor value for each variable is greater than the cross-loading value. This indicates that all indicators for all variables used in this study are valid. Discriminant validity can also be seen from the AVE (Average Variance Extracted) value.

The criteria for a good AVE is > 0.50 (Hair et al., 2019).

Table 6. Average Variance Extracted (AVE) Value/

No	Variables	AVE	Information
1	Work motivation	0.780	Valid
2	Career Development	0.711	Valid
3	Job satisfaction	0.732	Valid
4	Nurse Performance	0.672	Valid

According to the information in the table above, all variables in this study have an AVE value greater than 0.5. This indicates that each variable has strong discriminant validity. Another method that can be used to assess discriminant validity is based on the Fornel-Larcker criterion. The Fornel-Larcker criterion calculation process is carried out by comparing the AVE root of each construct to the correlation between one construct and another in the research hypothesis model.

Table 7. Fornell–Larcker Criterion.

Variables	Work motivation	Career Development	Job satisfaction	Nurse Performance
Work motivation	0.953			
Career Development	0.765	0.776		
Job satisfaction	0.354	0.467	0.872	
Nurse Performance	0.325	0.554	0.365	0.835

The table above shows that the validity of the discrimination is said to be valid and has fulfilled the validity test requirements because it can be seen that the Fornell Larckel value construct is higher compared to the correlation of the construct with different latent variables.

Reliability test using Composite Reliability (> 0.70) and Cronbach's Alpha (> 0.60) (Hair et al., 2019).

Table 8. Composite Reliability and Cronbach's Alpha.

Variables	Composite Reliability	Cronbach's Alpha	Information
Work motivation	0.811	0.830	Reliable
Career Development	0.912	0.735	Reliable
Job satisfaction	0.932	0.795	Reliable
Nurse Performance	0.792	0.831	Reliable

The results show that all constructs are reliable so that the instrument is considered consistent.

R-square is used to assess the predictive ability of a model; 0.75 is strong, 0.50 is moderate, and 0.25 is weak (Hair et al., 2019). Based on the reported results, the R-square value is in the moderate category.

Table 9. R-Square Value (Prediction Category).

No	Variables	R- Square	Model Prediction
1	Motivation Work	0.634	Moderate
2	Career Development	0.623	Moderate
3	Job satisfaction	0.611	Moderate

The work motivation variable has an r-square value of 0.634, meaning that the influence of work motivation on nurse performance is 63.4%. The r-square value for the career development variable is 0.623, meaning that the influence of career development on nurse performance is 62.3%. The r-square value for the job satisfaction variable is 0.611, meaning that the influence of job satisfaction on nurse performance is 61.1%.

F-square effect size measures the magnitude of the substantive influence of the exogenous construct on the endogenous construct: 0.02 is small; 0.15 is medium; 0.35 is large (Setiaman, 2023).

Table 10. f-Square Value.

Variable Relationship	f-Square	Substantive Influence
MK → KK	0.523	Big
PK → KK	0.491	Big
MK → KP	0.512	Big
PK → KP	0.251	Currently
KK → KP	0.179	Currently

These findings show that the greatest contribution occurs in work motivation and career development towards job satisfaction, as well as work motivation towards performance.

Hypothesis testing was carried out through bootstrapping with the following criteria: p-value < 0.05 and t-statistic > 1.96 (two tails).

Table 11. Path Coefficient Results (Direct Effect).

Hypothesis	Track	Coefficient	t	p	Decision
H1	MK → KK	0.625	5,589	0,000	Accepted
H2	PK → KK	0.242	2,270	0.007	Accepted
H3	MK → KP	0.510	2,541	0.009	Accepted
H4	PK → KP	0.421	3,090	0.006	Accepted
H5	KK → KP	0.325	2,660	0.008	Accepted

All direct effects were shown to be positive and significant.

Table 12. Results of Indirect Effect Testing.

Hypothesis	Mediation Path	Coefficient	t	p	Decision
H6	MK → KK → KP	0.817	3,776	0.004	Accepted
H7	PK → KK → KP	0.062	3,059	0.005	Accepted

These results indicate that job satisfaction plays a role as a mediating variable in the influence of work motivation and career development on nurse performance.

Discussion

The Influence of Work Motivation on Job Satisfaction

The results of the first hypothesis test indicate that work motivation has a positive and significant effect on nurses' job satisfaction at Pertamina Hospital Balikpapan (H1 is accepted). The t-statistic value is greater than the t-table and the significance value is below the 0.05 limit, indicating that the higher the nurses' work motivation, the higher the perceived job satisfaction.

Theoretically, these findings support the view that motivation is a psychological process that directs, maintains, and strengthens individual behavior within an organization (Leonard et al., 1999). From a Self-Determination Theory (SDT) perspective, intrinsic motivation stemming from interest, responsibility, and the drive to develop significantly contributes to more stable and sustainable job satisfaction (Ramadhani & Etikariena, 2018). When nurses feel driven to achieve, are trusted to carry out their duties, and have the opportunity to develop their potential, their work is perceived not only as an obligation but also as a source of satisfaction.

These results align with the view that job satisfaction is a complex phenomenon influenced by interactions between individuals, supervisors, and the work environment (Hayes et al., 2010). Nurses with high work motivation tend to exhibit more positive work attitudes, higher productivity, and organizational loyalty, while low motivation can potentially decrease satisfaction and increase turnover intentions (Sarker et al., 2003). These findings are consistent with previous research that found that work motivation positively influences job satisfaction (Brahmasari, 2018; Kartika, 2020). Therefore, increasing work motivation is an important strategy in strengthening nurse job satisfaction to support the quality of hospital services.

The Influence of Career Development on Job Satisfaction

The results of the second hypothesis test indicate that career development has a positive and significant effect on nurse job satisfaction (H2 is accepted). This indicates that nurses who perceive a clear career path, organizational support for education and training, and fair promotion opportunities tend to have higher levels of job satisfaction.

Conceptually, career development is understood as a continuous process aimed at improving an individual's abilities, competencies, and readiness to face future job demands (Anggreni & Dewi, 2023). When organizations provide clear and fair career policies, individuals feel valued and have more secure future prospects, resulting in increased job satisfaction.

In the context of human resource management, employee development is a long-term investment oriented towards increasing work effectiveness and efficiency, although it requires costs and careful planning (Anwar, 2016). Nurses who feel a good fit between job demands, interests, and abilities tend to work more comfortably, diligently, and with full commitment, which ultimately increases job satisfaction. This finding aligns with previous research that states that career development has a significant effect on job satisfaction (Utomo, 2017; Nadia, 2020). Therefore, strengthening career development programs, particularly training, which in descriptive analysis showed the lowest scores, needs to be a priority for hospital management to improve nurse job satisfaction more evenly.

The Influence of Work Motivation on Nurse Performance

The results of the third hypothesis test demonstrated that work motivation has a positive and significant effect on nurse performance (H3 was accepted). This finding indicates that work motivation is a crucial factor driving nurses to optimally perform in providing healthcare services.

Motivation drives individuals to exert energy, perseverance, and commitment in completing tasks (Cong & Van, 2013). In the nursing context, high motivation is reflected in the sincerity of carrying out nursing actions, adherence to operational standards, and responsibility in maintaining patient safety. The SDT perspective emphasizes that intrinsic motivation, which originates from internal drives, tends to produce more consistent and sustainable performance than motivation driven solely by external rewards (Ramadhani & Etikariena, 2018).

The results of this study align with empirical findings that suggest that work motivation influences employee morale and performance (Beal & Steven, 2007; Ek & Mukuru, 2013). In the service sector, motivated employees are not only more productive but also able to provide higher-quality services (Sarwar & Abugre, 2013). Previous research also shows that work motivation has a positive relationship with nurse performance (Rosyita et al., 2021) and plays a role in improving work discipline and commitment (Ambarwati et al., 2023). Therefore, hospitals need to maintain and strengthen factors driving work motivation, including working conditions, which in descriptive analysis were the highest indicator.

The Influence of Career Development on Nurse Performance

The results of the fourth hypothesis test indicate that career development has a positive and significant effect on nurse performance (H4 is accepted). This finding suggests that a good career development program can improve nurses' competence and readiness to face the complexities of the job, thus impacting performance improvement.

Career development provides individuals with clearer work direction and goals and helps nurses plan and manage their career paths in a more structured manner (Anggreni & Dewi, 2023). Nurses who receive training and competency development opportunities will develop better technical and non-technical skills, which are reflected in the quality, quantity, and timeliness of services provided.

This finding is supported by previous research that stated that career development positively impacts performance (Sihotang, 2021) and contributes to improving the quality of nurses' work, including in nursing care documentation (Fahriza et al., 2023). Furthermore, nurse performance is also influenced by other organizational factors such as organizational commitment and workload, which can interact with career development (Sumarni & Pramuntadi, 2019; Sopali et al., 2023). Therefore, strengthening the training aspect as part of career development is crucial, especially since this indicator showed the lowest score in the descriptive analysis.

The Influence of Job Satisfaction on Nurse Performance

The results of the fifth hypothesis test demonstrated that job satisfaction has a positive and significant effect on nurse performance (H5 was accepted). This indicates that job satisfaction is a significant factor contributing to improved nurse performance in providing healthcare services.

Nurse performance reflects their ability to provide nursing care according to established standards, which ultimately determines the quality of hospital services (Trevia et al., 2019). Nurses who are satisfied with their work, supervision, coworkers, and compensation tend to perform better in terms of quality, quantity, timeliness, and teamwork.

These findings support the view that job satisfaction can be a benchmark that directly impacts performance (Robbins, 2008), and that satisfied and motivated individuals tend to produce higher performance (Maharjan, 2012). The results of this study are also consistent with previous findings that state that job satisfaction has a significant effect on employee performance (Djestawana, 2012; Hartini, 2015; Ola, 2019). Thus, hospitals need to pay attention to the sources of job satisfaction, particularly the salary or wage aspect, which in descriptive analysis is the lowest indicator, because it has the potential to hinder performance optimization if not managed adequately.

The Influence of Work Motivation on Nurse Performance through Job Satisfaction

The results of the sixth hypothesis test indicate that work motivation has a positive and significant effect on nurse performance through job satisfaction (H6 is accepted). This finding indicates that job satisfaction acts as a mediating variable that strengthens the influence of work motivation on performance.

Conceptually, job satisfaction is an individual's emotional response to work conditions and experiences that drives the desire to perform better (Kasmir, 2016). High work motivation not only directly impacts performance but also increases job satisfaction, which in turn encourages nurses to perform more optimally. This finding aligns with research suggesting that job satisfaction mediates the influence of motivation on performance (Murti & Srimulyani, 2013; Suwardi & Utomo, 2017).

Other studies have also shown that job satisfaction has a significant relationship with performance (Gu & Siu, 2009), and that components of job satisfaction such as pay,

supervision, promotion opportunities, the work itself, and working conditions influence performance (Funmilola et al., 2013). Therefore, increasing work motivation should be integrated with strategies to improve job satisfaction so that its impact on nurse performance is stronger and more sustainable.

The Influence of Career Development on Nurse Performance through Job Satisfaction

The results of the seventh hypothesis test demonstrated that career development has a positive and significant effect on nurse performance through job satisfaction (H7 was accepted). This indicates that career development not only improves nurses' abilities and competencies but also increases job satisfaction, which in turn impacts performance improvement.

Within the framework of human resource management, career development is a strategic function to maximize employee job satisfaction and performance (Anwar, 2016). Nurses who perceive career opportunities, training support, and a transparent promotion system tend to be more satisfied and motivated to perform better. This finding aligns with previous research showing that job satisfaction mediates the effect of career development on performance (Lusri & Siagian, 2017).

Practically, hospitals need to ensure that career development policies are implemented consistently and fairly by strengthening training programs that performed lowest in the descriptive analysis. This strengthening of training is expected to create a more effective mediating pathway between career development, job satisfaction, and nurse performance.

5. Conclusions and Suggestions

This study shows that work motivation and career development are important factors in improving nurses' job satisfaction and performance at Pertamina Hospital Balikpapan. Research findings consistently demonstrate that work motivation has a significant and positive influence on nurses' job satisfaction. Nurses with high work performance, a strong sense of responsibility, opportunities for individual development, harmonious work relationships, and supportive working conditions tend to have higher levels of job satisfaction, both in terms of the work itself, salary or wages, supervision, and relationships with colleagues.

Furthermore, this study also confirmed that career development has a significant and positive impact on nurses' job satisfaction. Clear organizational policies, recognition for work performance, adequate work experience, educational and training support, and loyalty to the organization have been shown to increase nurses' job satisfaction. This suggests that a planned and fair career development system is a strategic tool in creating a sense of satisfaction and comfort for nurses in carrying out their work.

Further findings show that work motivation and career development not only influence job satisfaction but also have a direct, significant, and positive impact on nurse performance. Nurses who are motivated and have good career development opportunities tend to demonstrate more optimal performance, as reflected in improved work quality, quantity, punctuality, attendance, and teamwork abilities.

This study confirms that job satisfaction plays a significant role as a factor influencing nurse performance. The higher a nurse's level of satisfaction with their job, compensation system, supervision, and work relationships, the higher their performance. Job satisfaction serves as a psychological state that motivates nurses to work more professionally, with discipline, and responsibly.

The research results demonstrate that job satisfaction acts as a mediating variable in the relationship between work motivation and nurse performance, as well as between career development and nurse performance. This means that work motivation and career development will have a stronger impact on nurse performance when accompanied by a high level of job satisfaction. In other words, job satisfaction is an important mechanism that bridges the influence of organizational and individual factors on nurse performance.

Based on these overall findings, it can be concluded that improving nurse performance at Pertamina Balikpapan Hospital cannot be separated from the organization's efforts to build work motivation, provide a fair and sustainable career development system, and create working conditions that can increase nurse job satisfaction. The implications of this study emphasize the importance of the role of hospital management in designing human resource policies oriented towards strengthening motivation, career development, and job satisfaction as the main strategy to improve the performance and quality of nursing services.

There are several limitations in this research that need to be considered as a basis for developing further research, as follows:

- 1) This study was conducted solely on nurses working at Pertamina Hospital in Balikpapan. This limited focus on location and subjects means the results cannot be broadly generalized to other hospitals or healthcare institutions with different organizational characteristics, work cultures, and human resource management systems. Therefore, future research is recommended to expand the research sample to include nurses from various hospitals, both public and private, to enhance the generalizability of the findings.
- 2) This study only examined the influence of work motivation and career development on nurse performance, with job satisfaction as a mediating variable. This research model does not fully capture the complexity of nurses' work behavior within organizations. Other variables potentially influence nurse performance, particularly organizational behavior variables such as Organizational Citizenship Behavior (OCB), organizational commitment, or job stress. Therefore, future research is recommended to add these variables, either as mediating or moderating variables, to provide a more comprehensive model in explaining nurse performance.
- 3) This study used a quantitative approach with a questionnaire as the primary data source. This approach has the potential to introduce bias into respondents' perceptions because the data obtained is subjective and highly dependent on the respondents' honesty and understanding of the questionnaire statements. Future research is recommended to combine quantitative methods with qualitative approaches, such as in-depth interviews or observations, to gain a deeper understanding of the actual conditions of nurse motivation, career development, job satisfaction, and performance in the workplace.

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