



The Effect of Work-Life Balance, Employee Engagement, And Transformational Leadership on Nurses' Performance at Community Health Centers in Kendari City

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ABSTRACT

This study aims to analyze the effect of work-life balance, employee engagement, and transformational leadership on nurses' performance at Community Health Centers (Puskesmas) in Kendari City. This research uses a quantitative approach with a survey method. Data were collected through questionnaires distributed to nurses working at Community Health Centers in Kendari City. The population of this study consisted of all nurses working at Community Health Centers in Kendari City. A total of 136 respondents were selected using purposive sampling. Data analysis was conducted using multiple linear regression with the assistance of statistical software. The results show that work-life balance has a positive and significant effect on nurses' performance. Employee engagement also has a positive and significant effect on nurses' performance and represents the most dominant variable in explaining performance. Furthermore, transformational leadership has a positive and significant effect on nurses' performance. Simultaneously, work-life balance, employee engagement, and transformational leadership significantly influence nurses' performance. The coefficient of determination indicates that the three independent variables explain a substantial proportion of the variation in nurses' performance. These findings indicate that improving nurses' performance at Community Health Centers requires an integrated human resource management strategy. Management should provide a supportive work environment that enables nurses to balance professional and personal responsibilities, strengthen employee engagement through meaningful work and recognition, and develop transformational leadership practices that inspire, empower, and motivate nurses.

Keywords: Community Health Centers, Employee Engagement, Nurse Performance, Transformational Leadership, Work-Life Balance.

I. INTRODUCTION

Community Health Centers or Puskesmas are important primary healthcare institutions in Indonesia. Puskesmas provide promotive, preventive, curative, and rehabilitative health services to communities. The achievement of these functions depends heavily on the quality of human resources, particularly nurses who interact directly with patients and communities.

Nurses have an important role in providing healthcare services, implementing nursing care, educating patients, monitoring health conditions, supporting preventive programs, and coordinating with other healthcare professionals. Consequently, nurses' performance is an important indicator of the effectiveness and quality of healthcare services. Nurse performance does not depend solely on technical competence. It is also influenced by psychological, organizational, and leadership factors. Among the factors that are increasingly relevant in healthcare organizations are work-life balance, employee engagement, and transformational leadership.

Work-life balance refers to the ability of employees to manage and harmonize work responsibilities with personal, family, and social responsibilities. For nurses, work-life balance can be particularly challenging because healthcare services operate continuously and often require shift work, overtime, emergency responses, and high emotional demands. Recent evidence supports the relationship between work-life balance and nurse performance. Adella, Antonio, and Massie (2024), studying 132 nurses at an accredited private hospital in Indonesia, examined work-life balance in relation to nurse performance through work engagement and psychological well-being. Their research highlights work-life balance as an important issue in improving nurse outcomes.

Similarly, Wijaya and Suwandana (2022), who examined female nurses at Klungkung General Hospital, investigated work-life balance and job satisfaction as determinants of job performance.

More recent evidence from Indonesia also shows a positive association between work-life balance and nurse performance. Suminarsih, Ayu, and Rakhman (2026) found that work-life balance had a positive and significant effect on nurse performance among 109 nurses at Ken Saras Hospital. Although this study falls outside the requested 2021–2025 literature window, it provides contemporary supporting evidence. The second factor is employee engagement. Employee engagement refers to the extent to which employees are psychologically, emotionally, and physically involved in their work. Engaged nurses tend to demonstrate vigor, dedication, enthusiasm, and absorption in their work.

Employee engagement is particularly important in nursing because the profession requires continuous interaction with patients, emotional involvement, teamwork, and commitment to service quality.

Nur, Hamka, and Yuliana (2022) specifically examined work engagement and nurse performance at Makassar City Hospital. Their study focused on the dimensions of vigor, dedication, and absorption as important aspects of engagement in relation to nurse performance. In another study, Chinese nurses were examined during the COVID-19 pandemic. The study involving 595 nurses found that work engagement was relevant to job performance alongside role overload and perceived organizational support.

Ni and Xu (2024) further investigated 893 nurses in Sichuan Province and found that work engagement was an important mechanism linking job demands with job performance. The third factor is transformational leadership. Transformational leadership is a leadership style in which leaders inspire employees through vision, intellectual stimulation, individualized consideration, and idealized influence. In healthcare organizations, transformational leaders can encourage nurses to take initiative, develop professional competencies, participate in problem solving, and improve service quality.

Hasan, Ahmad, and Osman (2023) studied 353 nurses working in healthcare clinics in the United Arab Emirates. Their findings showed that transformational leadership was strongly related to nurses' job performance, with work engagement playing an important mediating role. Labrague and Obeidat (2022), using data from 754 nurses in 10 acute-care hospitals in the Philippines, found that transformational leadership played an important role in addressing work-family conflict and improving job engagement and patient-safety-related outcomes.

Research in Indonesia has also examined transformational leadership and nurse performance. Putro et al. (2024), using data from 180 nurses at Moh Ridwan Meuraksa Hospital Jakarta, examined transformational leadership alongside job satisfaction, organizational commitment, and recognition/rewards as factors related to nurse performance. Recent research continues to demonstrate the importance of leadership in nurses' performance and wellbeing. A 2024 study of 219 nurses in Norway found that autonomy-supportive leadership was associated with greater work performance and work engagement through satisfaction of basic psychological needs and autonomous motivation. Based on these findings, work-life balance, employee engagement, and transformational leadership represent important factors that may explain differences in nurses' performance.

However, many previous studies have examined these variables separately or have focused on hospitals rather than Community Health Centers in Kendari City. Therefore, this study attempts to integrate the three variables into a single multiple-regression model.

II. LITERATURE REVIEW

2.1 Work-Life Balance

Work-life balance describes the extent to which individuals can effectively manage and harmonize demands arising from work and non-work domains. Greenhaus, Collins, and Shaw conceptualized work-life balance around the degree to which individuals are equally engaged in and satisfied with their work and family roles.

In the nursing context, work-life balance can include:

1. Work-family balance.
2. Time balance.
3. Involvement balance.
4. Satisfaction balance.
5. Ability to manage shift schedules.
6. Adequate rest.
7. Flexibility in working arrangements.

When nurses experience a healthy work-life balance, they may have greater physical and psychological resources to perform their professional responsibilities. Conversely, poor work-life balance can result in fatigue, emotional exhaustion, work-family conflict, reduced concentration, and ultimately lower performance. Arif, Rivai, and Yuliharsi (2022) found that work-life balance significantly affected health-worker job performance and also played a mediating role in the relationship between job stress and performance.

2.2. Employee Engagement

Employee engagement describes the degree to which employees invest their physical energy, cognitive attention, and emotional commitment in their work. Kahn's framework identifies three psychological conditions associated with engagement:

- 1) Meaningfulness;
- 2) Safety; and

3) Availability.

In the work-engagement literature, Schaufeli et al. commonly identify three dimensions:

1. Vigor

High energy and mental resilience during work.

2. Dedication

Strong involvement, enthusiasm, inspiration, and sense of significance.

3. Absorption

Being fully concentrated and deeply involved in work. For nurses, high engagement can result in greater willingness to provide quality care, cooperate with colleagues, solve problems, and take responsibility.

The study by Nur et al. (2022) specifically examined work engagement and nurse performance in Makassar and supports the importance of engagement in the nursing context. Ni and Xu (2024), using 893 nurses, also identified work engagement as an important mechanism associated with job performance.

2.3. Transformational Leadership

Transformational leadership refers to leadership that encourages followers to transcend individual interests and pursue shared organizational goals. Bass's transformational leadership model consists of four dimensions:

1. Idealized influence

2. Inspirational motivation

3. Intellectual stimulation

4. Individualized consideration

In healthcare organizations, transformational leadership can encourage nurses to improve their professional performance and respond positively to organizational changes. Hasan et al. (2023) found that transformational leadership was strongly associated with nurse performance, with work engagement playing a major role in this relationship.

2.4. Nurse Performance

Nurse performance refers to the quality and quantity of work achieved by nurses in carrying out their professional responsibilities. Performance can include:

1. Quality of nursing care.

2. Quantity of completed work.

3. Timeliness.

4. Accuracy.

5. Responsibility.

6. Compliance with procedures.

7. Communication.

8. Teamwork.

9. Patient orientation.

High nurse performance contributes to improved patient satisfaction, service quality, patient safety, and organizational effectiveness. Recent Indonesian research confirms that various organizational and psychological factors are associated with nurse performance. For example, Putro et al. (2024) found significant associations involving job satisfaction and recognition/rewards among 180 nurses.

2.5 Previous Research

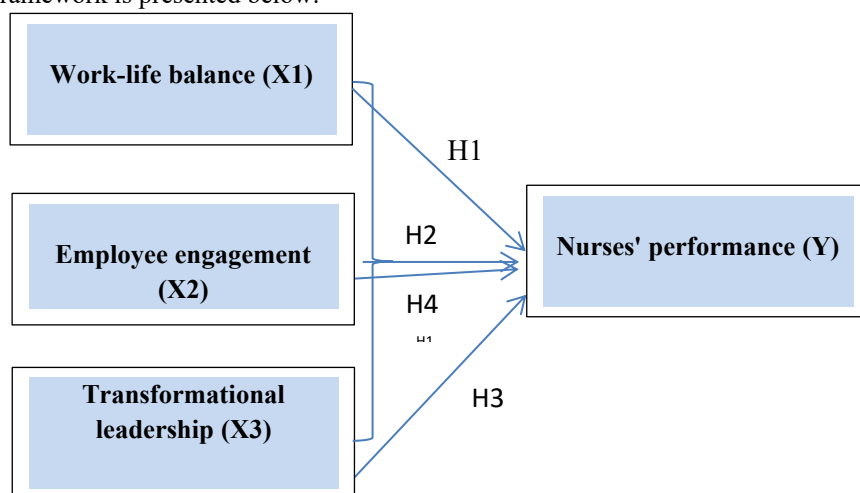
Table 1. Previous Research

No.	Author & Year	Sample/Context	Variables	Main Findings
1	Diana et al. (2022)	400 nurses, 36 Type-B hospitals in Jakarta	Quality of work life, commitment, satisfaction, empowerment, performance	Quality of work life significantly affected organizational commitment, job satisfaction, and psychological empowerment; its direct effect on job performance was not significant.
2	Arif, Rivai & Yuliasri (2022)	Health workers	Job stress, WLB, performance	Job stress and work-life balance significantly affected job performance; WLB also mediated the stress-performance relationship.
3	Wijaya & Suwandana (2022)	206 female nurses	Job satisfaction, WLB, performance	Examined WLB and job satisfaction as determinants of female nurses' job performance.
4	Nur, Hamka & Yuliana (2022)	Nurses at Makassar City Hospital	Work engagement, performance	Work engagement was examined as an important determinant of nurse performance.
5	Labrague & Obeidat (2022)	754 nurses, 10 hospitals	Work-family conflict, transformational leadership, engagement	Transformational leadership played an important role in the relationship between work-family conflict, engagement, and patient-safety outcomes.
6	Hasan, Ahmad & Osman (2023)	353 healthcare-clinic nurses, UAE	Transformational leadership, work engagement, performance	Transformational leadership was associated with nurse performance, with work engagement playing a major role.
7	Adella, Antonio & Massie (2024)	132 nurses, Indonesian private hospital	WLB, engagement, psychological wellbeing, performance	Examined WLB in relation to nurse performance through work engagement and psychological wellbeing.

No.	Author & Year	Sample/Context	Variables	Main Findings
8	Ni & Xu (2024)	893 nurses, Sichuan, China	Job demands, work engagement, performance	Work engagement was an important mechanism linking job demands with nurse performance.
9	Putro et al. (2024)	180 nurses, Jakarta	Transformational leadership, satisfaction, commitment, recognition, performance	Job satisfaction and recognition/rewards were significantly associated with nurse performance.
10	Zafirah & Budiono (2024)	90 Generation-Z nurses	WLB, psychological wellbeing, engagement, performance	WLB significantly affected work engagement but did not significantly affect job performance directly; work engagement did not significantly affect performance in this sample.
11	Aziz et al. (2025)	43 inpatient nurses, Mamuju	Employee engagement, WLB, quality of nursing work life, performance	Employee engagement ($p=.003$), WLB ($p=.006$), and quality of nursing work life ($p=.009$) significantly affected performance; combined variables explained 78.6% of variance.

2.6 Conceptual Framework

The conceptual framework is presented below:



2.6.1 Hypotheses

- H1:** Work-life balance has a positive and significant effect on nurses' performance at Community Health Centers in Kendari City.
- H2:** Employee engagement has a positive and significant effect on nurses' performance at Community Health Centers in Kendari City.
- H3:** Transformational leadership has a positive and significant effect on nurses' performance at Community Health Centers in Kendari City.
- H4:** Work-life balance, employee engagement, and transformational leadership simultaneously have a positive and significant effect on nurses' performance.

III. RESEARCH METHOD

3.1 Research Location

The research was conducted at Community Health Centers (Puskesmas) in Kendari City, Southeast Sulawesi, Indonesia.

3.2 Population

The population consisted of nurses working at Community Health Centers in Kendari City.

3.3 Sample

The research sample consisted of 136 nurses.

Purposive sampling was used based on predetermined inclusion criteria :

1. Nurses actively working at a Puskesmas in Kendari City.
2. Nurses with a minimum working period of one year.
3. Nurses willing to participate.
4. Nurses who completed the questionnaire.

3.4 Data Collection

Data were collected using a structured questionnaire.

A five-point Likert scale was used:

Score	Response
1	Strongly Disagree
2	Disagree
3	Neutral
4	Agree

Score	Response
5	Strongly Agree

3.5. Data analysis

Data analysis was conducted using multiple linear regression with the assistance of statistical software.

IV. RESULTS AND DISCUSSIONS

4.1 Result

4.1.1 Respondent Characteristics

The following table is a simulated example for 136 respondents.

Table 3. Respondent Characteristics (n = 136)

Characteristic	Category	Frequency	Percentage (%)
Gender	Male	32	23.5
	Female	104	76.5
Age	< 30 years	39	28.7
	30–40 years	61	44.9
	> 40 years	36	26.5
Education	Diploma in Nursing	48	35.3
	Bachelor/Professional Nurse	88	64.7
Length of Service	< 5 years	42	30.9
	5–10 years	55	40.4
	> 10 years	39	28.7
Total		136	100.0

Table 3 shows that the majority of respondents were female, totaling 104 nurses (76.5%). The largest age group was 30–40 years, consisting of 61 respondents (44.9%). In terms of education, 88 respondents (64.7%) had a Bachelor of Nursing/Professional Nurse qualification, while 48 respondents (35.3%) had a Diploma in Nursing. Regarding length of service, the largest group had worked for 5–10 years, totaling 55 respondents (40.4%).

Table 4. Descriptive Statistics

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Work-Life Balance	136	2.40	5.00	3.91	0.58
Employee Engagement	136	2.57	5.00	4.08	0.51
Transformational Leadership	136	2.43	5.00	3.87	0.59
Nurse Performance	136	2.63	5.00	4.12	0.48

The results indicate that employee engagement has the highest mean score (4.08), followed by nurse performance (4.12), work-life balance (3.91), and transformational leadership (3.87). Overall, the mean scores indicate relatively favorable perceptions among respondents.

Table 5. Multiple Linear Regression Results

Variable	B	Std. Error	Beta (β)	t-value	Sig.
Constant	0.742	0.321	—	2.312	0.022
Work-Life Balance	0.241	0.083	0.243	2.904	0.004
Employee Engagement	0.486	0.076	0.482	6.395	0.000
Transformational Leadership	0.217	0.081	0.219	2.679	0.008

4.1.2 Partial Hypothesis Test

Table 6. t-Test

Hypothesis	Relationship	β	t-statistic	p-value	Decision
H1	Work-Life Balance → Nurse Performance	0.243	2.904	0.004	Supported
H2	Employee Engagement → Nurse Performance	0.482	6.395	0.000	Supported
H3	Transformational Leadership → Nurse Performance	0.219	2.679	0.008	Supported

At $\alpha = 0.05$, all three independent variables have p-values below 0.05. Therefore, H1, H2, and H3 are supported.

4.1.3 Simultaneous Test

Table 7. F-Test

Model	Sum of Squares	df	Mean Square	F-value	Sig.
Regression	28.764	3	9.588	99.58	0.000
Residual	12.713	132	0.096		
Total	41.477	135			

The F-statistic is 99.58, with a significance value of 0.000 (<0.05).

Therefore, work-life balance, employee engagement, and transformational leadership simultaneously have a significant effect on nurse performance.

4.1.4 Coefficient of Determination

Table 8. Model Summary

R	R Square	Adjusted R Square	Std. Error of Estimate
0.832	0.692	0.685	0.310

The R^2 value is 0.692. This means that 69.2% of the variation in nurse performance can be explained by work-life balance, employee engagement, and transformational leadership.

The remaining 30.8% is explained by other factors not included in this model, such as workload, compensation, organizational culture, job satisfaction, organizational commitment, work environment, psychological wellbeing, and professional competence.

4.1.5 Dominant Variable

Based on the standardized regression coefficients:

Variable	Standardized Beta
Work-Life Balance	0.243
Employee Engagement	0.482
Transformational Leadership	0.219

Employee engagement has the highest standardized beta ($\beta = 0.482$). Therefore, employee engagement is the most dominant variable affecting nurse performance.

4.2 Discussion

4.2.1 Effect of Work-Life Balance on Nurse Performance

Work-life balance has a positive and significant effect on nurse performance ($\beta = 0.243$; $t = 2.904$; $p = 0.004$). This indicates that nurses who can better balance their professional responsibilities with family and personal needs tend to demonstrate better performance. Nursing work often involves shift schedules, high workloads, emergency situations, and emotional demands. When nurses are able to obtain sufficient rest and maintain adequate personal and family relationships, they are more likely to have adequate physical and psychological resources to perform their duties.

The result is consistent with Arif et al. (2022), who found that work-life balance significantly affected job performance among health workers. It is also consistent with recent Indonesian evidence showing a significant positive effect of WLB on nurse performance.

However, the literature is not completely uniform. Zafirah and Budiono (2024), for example, found that work-life balance did not significantly affect job performance directly among Generation-Z nurses, despite its significant relationship with work engagement. This difference suggests that the effect of work-life balance may depend on context, generation, organizational characteristics, and other psychological variables.

4.2.2. Effect Of Employee Engagement on Nurse Performance

Employee engagement has a positive and significant effect on nurse performance, with $\beta = 0.482$, $t = 6.395$, and $p < 0.001$. This is the strongest coefficient among the three independent variables. Engaged nurses tend to invest more energy and attention in their work. They are more enthusiastic, dedicated, and psychologically involved in patient care.

The finding is consistent with Nur et al. (2022), who specifically examined work engagement and nurse performance in Makassar City Hospital. It is also consistent with the study of 595 Chinese nurses, which examined work engagement as a factor associated with job performance. Ni and Xu (2024), based on 893 nurses, similarly found that work engagement is an important mechanism associated with job performance. Therefore, employee engagement should be considered a strategic human-resource factor in Puskesmas.

4.2.3. Effect of Transformational Leadership on Nurse Performance

Transformational leadership has a positive and significant effect on nurse performance ($\beta = 0.219$; $t = 2.679$; $p = 0.008$). This indicates that nurses who perceive stronger transformational leadership tend to have better performance.

Transformational leaders motivate employees through shared vision, support, intellectual stimulation, and individual consideration. In a Puskesmas environment, the head of the health center and nursing coordinators can demonstrate transformational leadership by Communicating clear service objectives; Encouraging nurses to innovate; Providing feedback; Supporting professional development; Recognizing achievements; Involving nurses in decision-making; and Serving as role models.

Hasan et al. (2023) found that transformational leadership was related to nurse performance, with work engagement strongly influencing the relationship. Labrague and Obeidat (2022) likewise demonstrated the importance of transformational leadership in supporting nurses' engagement and patient-safety-related outcomes.

Recent research on nurses also shows that supportive leadership can improve work performance and engagement by satisfying employees' psychological needs.

4.2.4. Simultaneous Effect

The F-test indicates that work-life balance, employee engagement, and transformational leadership simultaneously influence nurse performance. The F-statistic of 99.58 with $p < 0.001$ demonstrates that the regression model is statistically significant. This finding indicates that nurse performance is not determined by a single factor. Instead, performance emerges from the interaction between: the nurse's ability to maintain work-life balance; psychological involvement in work; and leadership support. The R^2 value of 69.2% further indicates that the three variables collectively have substantial explanatory power.

4.2.5 Employee Engagement as The Dominant Variable

Employee engagement has the highest standardized coefficient ($\beta = 0.482$), compared with work-life balance ($\beta = 0.243$) and transformational leadership ($\beta = 0.219$). This means that, within the simulated regression model, employee engagement makes the strongest unique contribution to nurse performance.

The result is theoretically understandable. Work-life balance provides nurses with the resources to maintain wellbeing, while transformational leadership provides organizational direction and motivation. However, engagement

represents the psychological state through which nurses actually invest energy, attention, and dedication in their daily work. Consequently, Puskesmas management should prioritize strategies that create meaningful and engaging work.

4.3 Implications

This study provides several theoretical implications. First, the findings support the proposition that employee performance is influenced by both individual psychological factors and organizational conditions. Second, the findings strengthen the relevance of work-life balance theory in healthcare settings. Third, the results support engagement theory by demonstrating that psychological involvement in work is closely associated with performance.

Fourth, the results support transformational leadership theory by showing that leadership behaviors can contribute to improved employee performance. Finally, integrating the three variables provides a more comprehensive explanation of nurse performance than examining any single variable independently.

V. CONCLUSION AND SUGGESTIONS

5.1 Conclusion

Based on the research results, several conclusions can be drawn. First, work-life balance has a positive and significant effect on nurses' performance at Community Health Centers in Kendari City. This indicates that nurses who are better able to balance work and personal responsibilities tend to demonstrate better performance. Second, employee engagement has a positive and significant effect on nurses' performance. Employee engagement is also the most dominant variable in the model, indicating that nurses' energy, dedication, enthusiasm, and psychological involvement in work are highly important for performance. Third, transformational leadership has a positive and significant effect on nurses' performance. Supportive and inspirational leadership can motivate nurses to perform their duties more effectively. Fourth, work-life balance, employee engagement, and transformational leadership simultaneously have a significant effect on nurses' performance. Finally, the coefficient of determination indicates that the three variables explain approximately 69.2% of the variation in nurse performance, while 30.8% is explained by other factors outside the model.

5.2 Suggestions

For Puskesmas management, improving nurses' performance should be approached through an integrated human resource management strategy. Management needs to develop work schedules that provide adequate recovery time, monitor excessive workloads and overtime, and create recognition programs for nurses who demonstrate excellent performance. Opportunities for professional development should also be provided through training, workshops, and continuing education. In addition, nurses should be involved in organizational decision-making so that they feel valued and have greater ownership of their work. Effective communication between management and nurses should be strengthened through regular meetings, open feedback mechanisms, and supportive supervision. Puskesmas heads and nursing coordinators are also encouraged to develop transformational leadership competencies by providing inspiration, individual support, constructive feedback, and opportunities for innovation and problem solving. Finally, periodic employee-engagement surveys can be conducted to identify nurses' needs, concerns, and levels of engagement.

For nurses, improving performance requires active participation in organizational programs and a commitment to maintaining professional standards. Nurses are encouraged to manage their professional and personal responsibilities effectively so that work-life balance can be maintained. They should communicate workload difficulties, scheduling problems, or other work-related concerns openly with supervisors before these issues negatively affect performance. Nurses should also actively participate in training, professional development, teamwork, and organizational improvement activities. By strengthening professional competence, maintaining positive relationships with colleagues, and becoming more involved in their work, nurses can contribute not only to their individual performance but also to the quality and effectiveness of healthcare services provided by the Puskesmas.

For future researchers, further studies should expand the research model by examining other factors that may influence nurses' performance, such as workload, job satisfaction, organizational commitment, compensation, work environment, burnout, psychological wellbeing, organizational culture, professional competence, and perceived organizational support. Examining these variables could provide a more comprehensive understanding of the factors that determine nurse performance. Future researchers are also encouraged to conduct studies using larger samples and involving Puskesmas from different regions to improve the generalizability of findings. In addition, longitudinal research designs are recommended because they can observe changes in work-life balance, employee engagement, leadership, and nurse performance over time and provide stronger evidence regarding causal relationships.

5.3 Limitations

This research has several limitations. First, the cross-sectional design means that relationships between variables are examined at one point in time. Second, the research focuses on Puskesmas in Kendari City, so the findings may not automatically generalize to all nurses in Indonesia. Third, the use of self-reported questionnaires may introduce response bias. Fourth, the research model includes only three independent variables, whereas nurse performance is influenced by many individual and organizational factors.

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