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The Influence of Interpersonal Communication, Professionalism and Competence on The Monitoring System and Hospital Paramedic Performance at Dr. H. Soewondo Kendal Regional Hospital

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ABSTRACT

The performance of paramedics, especially nurses and midwives, is essential to the quality of hospital health services. This study aims to examine the influence of interpersonal communication, professionalism, and competence on the monitoring system and nurse performance at at Dr. H. Soewondo Kendal Regional Hospital. Using a quantitative approach with SEM-PLS and WarpPLS 5.0, data from 110 paramedics (92 nurses and 18 midwives) were analyzed. The results show that interpersonal communication, professionalism, and competence significantly influence the monitoring system (R^2 = 0.79), which in turn positively affects nurse performance (R^2 = 0.73). However, competence does not have a significant direct effect on performance without the mediation of the monitoring system. These findings suggest that improving internal factors along with an effective monitoring system can enhance overall paramedic performance and support hospital management in optimizing human resources.

Keywords: *Nurse Performance, Interpersonal Communication, Professionalism, Competence, Monitoring System, SEM-PLS*

INTRODUCTION

The performance of paramedics, especially nurses and midwives, is one of the crucial factors in determining the quality of health services in hospitals. According to WHO (2020), the quality of health workers is directly related to the level of patient safety and the overall success of health services. Hospitals as health care institutions are required to constantly improve the performance of their human resources, especially paramedics, in order to be able to compete and meet public expectations for professional and quality services.

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In the context of improving paramedic performance, there are a number of internal factors that play a significant role, including interpersonal communication, professionalism, and competence. Effective interpersonal communication is believed to be an important foundation in strengthening coordination, building harmonious working relationships, and increasing the productivity of health workers (Putri et al., 2022). In the hospital environment, the ability of paramedics to communicate between individuals effectively contributes greatly to the smooth process of medical services, especially in situations that demand speed and accuracy of decision making. This is particularly relevant at at Dr. H. Soewondo Kendal Regional Hospital, where improving interpersonal communication among paramedics is essential to enhance overall service delivery and ensure the quality of care provided to patients.

Paramedic professionalism is also an important dimension in supporting the achievement of optimal performance. Professionalism includes commitment to ethical standards, accountability in carrying out tasks, and continuous efforts to develop knowledge and skills according to the development of health science and technology (Sari & Wibowo, 2023). The higher the level of professionalism of medical personnel, the greater their contribution to the quality of health services.

In addition, individual competence, both in cognitive, affective, and psychomotor aspects, determines the successful implementation of nursing and midwifery tasks. Paramedic competencies must be constantly updated through continuous education and training in order to be able to provide holistic and patient safety-based services (Pratama & Utami, 2021). High competence allows health workers to deal with the dynamics of work in hospitals effectively and efficiently.

Equally important, the monitoring system acts as a mechanism to control the quality of paramedical work. Monitoring carried out in a structured and systematic manner will ensure that the service process runs according to established standards and provide feedback for performance improvement (Nursalam, 2018). The implementation of an effective monitoring system can strengthen the relationship between individual factors such as communication, professionalism, and competence with paramedic performance outputs.

Based on this background, this study aims to examine empirically the effect of interpersonal communication, professionalism, and competence on the monitoring system and paramedic performance at Fatimah at Dr. H. Soewondo Kendal Regional Hospital. The results of the study are expected to make a practical contribution to the development of human resource management strategies in the health sector, especially in improving the effectiveness of hospital services.

1. Performance

Performance is the result of work in quality and quantity achieved by a person in carrying out tasks according to the responsibilities given. According to Mangkunegara (2019), performance is the result of work achieved by individuals based on predetermined standards and criteria. In the context of health services, the performance of nurses and midwives is very important because it directly affects service quality and patient safety. Simamora (2016) adds that performance appraisals allow organizations to provide objective feedback and as a basis for future employee development.

2. Interpersonal Communication

Interpersonal communication is the process of exchanging messages between two or more individuals involving verbal and nonverbal aspects with the aim of building mutual understanding. According to DeVito (2013), interpersonal communication occurs in the context of close personal relationships and allows for understanding and immediate response. In a hospital setting, effective interpersonal communication between healthcare workers is essential to prevent medical errors and improve collaboration in patient care (Putri et al., 2022).

3. Professionalism

Professionalism refers to work attitudes and behaviors that are in accordance with professional standards, ethical values, and commitment to continuous self-development. Hayes (2016) states that professionalism reflects integrity and responsibility in carrying out duties in accordance with standards of practice. In nursing practice, professionalism can be seen from the ability of nurses to provide services that are independent, accountable, and oriented towards improving the quality of life of patients (Sari & Wibowo, 2023).

4. Competence

Competence is the combination of knowledge, skills, attitudes and values required to perform tasks effectively. In the context of nursing, competence includes technical and clinical abilities, as well as interpersonal and ethical aspects that support holistic care. Marwiati (2018) mentioned that credentialization is an important step to ensure the competence of nurses in carrying out safe and quality nursing care. Pratama and Utami (2021) confirmed that increasing competence through education and training is very important to face the challenges of globalization in the world of health.

5. Monitoring System

A monitoring system is a systematic process for monitoring and evaluating activities so that they run according to plan and achieve set targets. Monitoring in health care organizations has two main functions: compliance monitoring to ensure conformity with standards, and performance monitoring to assess performance achievement (Nataliana, 2016). Structured monitoring can be an effective quality control tool in driving continuous improvement and ensuring that medical personnel provide services according to professional standards.

METHODS

This research uses a quantitative approach that aims to test theories, build facts, describe relationships between variables, and provide statistical descriptions to estimate and predict results. The quantitative approach demands a research design that is structured, formal, standardized, and has been planned carefully before conducting research (Arikunto, 2012). The research method applied is the associative method, which is a method that aims to analyze the relationship and influence between the variables studied. In this study, the independent variables consist of

interpersonal communication, professionalism, and competence. The intervening variable is the monitoring system, while the dependent variable is nurse performance.

1. Population and Research Sample

The population in this study refers to the entire unit of analysis that is the object of study. According to Arikunto (2012), the population is the entire research subject. The population used in this study were all nurses and midwives working at at Dr. H. Soewondo Kendal Regional Hospital, with a total of 110 people. The sampling technique used was the census technique, where all members of the population were used as research samples. The sample consisted of 92 nurses and 18 midwives, so that the total number of respondents involved remained 110 people..

2. Data Analysis Technique

Data analysis was carried out using the Structural Equation Modeling (SEM) approach with the Partial Least Squares (PLS) method. This technique was chosen because it is able to analyze causal relationships between constructs simultaneously, especially in complex models with a limited number of samples. Testing the validity of the instrument is done by looking at the outer loading value, where the indicator is said to be valid if it has a loading factor value above 0.50 and is statistically significant (t-statistic is greater than t- table). To test the reliability of the instrument, two indicators are used, namely Composite Reliability and Cronbach's Alpha. Constructs are said to be reliable if they have a Composite Reliability value of more than 0.8 and Cronbach's Alpha greater than 0.7 (Sugiyono, 2015). Furthermore, hypothesis testing is carried out by analyzing the inner model, namely examining the relationship between latent variables based on the path coefficient value and p-value, using WarpPLS software version 5.0.

RESULTS

1. Validity Test

The validity test is carried out to assess the extent to which the research instrument can measure the construct that should be measured precisely. In the Structural Equation Modeling (SEM) approach, construct validity is tested through the loading factor value of each indicator on the latent variable it represents. Convergent validity is said to be achieved if each indicator has a loading value of more than 0.50 (Sholihin & Ratmono, 2013; Hair et al., 2019). Based on the results of the analysis using WarpPLS 5.0, all indicators of the Interpersonal Communication, Professionalism, Competence, Monitoring System, and Nurse Performance constructs show a loading value above 0.50. This indicates that all question items in the questionnaire have sufficient convergent validity and can be used in testing the structural model.

The convergent validity achieved shows that the indicators used have been able to represent each construct consistently and accurately. Thus, this research instrument can be declared feasible in measuring the variables under study.

Table 1. Convergent Validity of Interpersonal Communication

Indicator	Normalized Combined Loading	Criteria	Description
X11	0.725	0,50	Convergent validity
X12	0.865	0,50	Convergent validity
X13	0.765	0,50	Convergent validity
X14	0.843	0,50	Convergent validity
X15	0.778	0,50	Convergent validity

Table 1 shows the results of the convergent validity test of the interpersonal communication variable indicators. All indicators (X11 to X15) have a loading value above 0.50, which means they meet the requirements of convergent validity. The highest loading value is in indicator X12 of 0.865, while the lowest is X11 of 0.725. This shows that all indicators are valid and can be used to measure interpersonal communication constructs.

Table 2. Convergent Validity of Professionalism

Indicator	Normalized Combined Loading	Criteria	Description
X21	0.615	0,50	Convergent validity
X22	0.828	0,50	Convergent validity
X23	0.785	0,50	Convergent validity

Table 2 displays the loading values for each professionalism indicator (X21 to X23). All loading values are above 0.60 with the highest value on X22 of 0.828. This shows that the three indicators are valid in measuring the professionalism variable.

Table 3. Convergent Validity of Competencies

Indicator	ized Combined Loading	Criteria	Description
X31	0.842	0,50	Convergent validity
X32	0.702	0,50	Convergent validity
X33	0.610	0,50	Convergent validity
X34	0.725	0,50	Convergent validity

This table presents the results of measuring convergent validity for the competency variable. The four indicators (X31 to X34) show loading values between 0.610 to 0.842. All loading values meet the minimum limit of 0.50, so it can be concluded that all indicators are valid to represent the competency construct.

Table 4. Convergent Validity of Monitoring System

Indicator	ized Combined Loading	Criteria	Description
Z1	0.760	0,50	Convergent validity
Z2	0.635	0,50	Convergent validity

This table shows two indicators of the monitoring system, namely Z1 and Z2, which have a loading of 0.760 and 0.635 respectively. Both values exceed the thresholdof 0.50, so both indicators are declared valid.

Table 5. Convergent Validity of Nurse Performance

Indicator	Normalized Combined Loading	Criteria	Description
Y1	0.910	0,50	Convergent validity
Y2	0.825	0,50	Convergent validity
Y3	0.770	0,50	Convergent validity
Y4	0.732	0,50	Convergent validity
Y5	0.565	0,50	Convergent validity

This table includes five indicators of nurse performance (Y1-Y5). All indicators have a loading value above 0.50 with the highest value in Y1 of 0.910 and the lowest in Y5 of 0.565. Thus, all indicators are considered valid and can be used in the research model.

2. Reliability Test

Instrument reliability is tested to ensure that variable measurements are consistent and stable. The reliability test is carried out by looking at the Composite Reliability and Cronbach's Alpha values, where a construct is declared reliable if it has a value greater than 0.70 (Sugiyono, 2015).

Table 6. Reliability Test Table

Variable Description	Composite Reliability	onbach's Alpha	Standard	Description
Interpersonal Communication (X1)	0.835	0.775	0,700	Reliable
Professionalism (X2)	0.745	0.821	0,700	Reliable
Competence (X3)	0.783	0.751	0,700	Reliable
Monitoring System (Z)	0.730	0.860	0,700	Reliable
Nurse Performance (Y)	0.884	0.832	0,700	Reliable

All composite reliability values were above 0.70, with the highest value in the nurse performance construct (0.884). Similarly, Cronbach's Alpha also showed values above 0.70 for all constructs, with the highest value for the monitoring system (0.860).

These results indicate that all constructs in this study have high internal consistency and can be trusted to be used in further testing.

3. Hypothesis Test

Hypothesis testing in this study aims to test the causal relationship between latent variables, namely interpersonal communication (X1), professionalism (X2), and competence (X3) on the monitoring system (Z) and nurse performance (Y), either directly or through intervening variables. The test was conducted using the **Structural Equation Modeling (SEM)** approach with **WarpPLS version 5.0**, and was declared significant if the *p-value* <0.05. The following are the results of hypothesis testing:

Table 7. Hypothesis Test

Hypothesis	Independent Variable→ Dependent Variable	Path Coefficient	p-value	Description
H1	Interpersonal Communication→ Monitoring System	Significant	< 0,05	Accepted
H2	Professionalism→ Monitoring System	Significant	< 0,05	Accepted
H3	Competency→ Monitoring System	Significant	< 0,05	Accepted
H4	Interpersonal Communication→ Nurse Performance	Significant	< 0,05	Accepted
H5	Professionalism→ Nurse Performance	Significant	< 0,05	Accepted
H6	Competence→ Nurse Performance	Not Significant	> 0,05	Rejected
H7	Monitoring System→ Nurse Performance	Significant	< 0,05	Accepted

H8	Interpersonal Communication→ Performance via Monitoring	Significant	< 0,05	Accepted (Positive Mediation Effect)
H9	Professionalism→ Performance via Monitoring	Significant	< 0,05	Accepted (Positive Mediation Effect)
H10	Competence→ Performance via Monitoring	Significant	< 0,05	Accepted (Positive Mediation Effect)

The coefficient of determination (R^2) for the monitoring system variable is **0.79**, meaning that 79% of the variability of the monitoring system can be explained by interpersonal communication, professionalism, and competence. Meanwhile, the R^2 value for the nurse performance variable is 0.73, indicating that 73% of the variability in nurse performance can be explained by the other four variables.

DISSCUSION

Based on the results of the validity and reliability tests, all indicators in this study have proven to have adequate convergent validity, with loading factor values above the threshold of 0.50. This indicates that each indicator consistently measures the intended construct, whether in the variables of interpersonal communication, professionalism, competence, monitoring system, or nurse performance. This validity is reinforced by the reliability test results, which show Composite Reliability and Cronbach's Alpha values above 0.70 for all constructs, indicating that the instruments used are consistent and stable for use in further research. These findings are in line with the research by Hair et al. (2019), which states that high loading factor and reliability values indicate the instrument's effectiveness in measuring latent constructs.

From the perspective of hypothesis testing, it was found that interpersonal communication, professionalism, and competence have a significant impact on the monitoring system. In addition, interpersonal communication and professionalism also have a direct impact on nurse performance, while competence does not have a direct impact but influences through the mediation of the monitoring system. These results indicate that the monitoring system plays a crucial mediating role that strengthens the relationship between competence and nurse performance. These findings support the study by Tappen et al. (2017), which revealed that the effectiveness of monitoring or surveillance systems in hospitals is greatly influenced by the quality of communication and professionalism of the staff. Additionally, professionalism consistently serves as a variable that directly influences the quality of healthcare workers' performance, as stated by Oktaviani et al. (2020) in their research on the impact of professionalism on nurses' performance in government hospitals.

However, the results showing that competence does not have a direct impact on nurse performance appear to differ from the findings of previous research by Sutrisno and Rahayu (2018), which stated that technical and managerial competence have a significant direct impact on nurse performance. This discrepancy may stem from several contextual factors. First, the organizational structure and workflow at at Dr. H. Soewondo Kendal Regional Hospital may emphasize process standardization and protocol compliance, where performance outcomes are more closely monitored and managed through supervisory mechanisms rather than individual discretion. Second, in a highly regulated environment such as a public hospital, even highly competent nurses may have limited autonomy in decision-making, making the role of the monitoring system more critical than individual capability. Third, differences in perception of what constitutes "competence" whether viewed more as formal qualifications, clinical skills, or problem-solving ability could influence the way competence is operationalized and how it affects performance.

These differences have important implications for hospital human resource policies. Rather than relying solely on improving technical competencies through training, hospitals like at Dr. H. Soewondo Kendal Regional Hospital may need to invest in strengthening monitoring mechanisms that channel and support competent behavior. For example, structured performance feedback systems, regular supervision, and clear performance metrics could serve as bridges to translate competence into visible and measurable performance improvements. This also highlights the need for integrative HR strategies that align personal competence with organizational control systems.

Overall, these findings underscore the importance of interpersonal communication and professionalism in building an effective work system, which ultimately impacts the performance of healthcare workers. Meanwhile, nurses' competencies must be integrated with a robust monitoring system to achieve optimal work performance. Future studies may explore how different hospital types (private vs. public) or levels of management autonomy moderate the relationship between competence and performance outcomes.

CONCLUSIONS

This study examines the influence of interpersonal communication, professionalism, and competence on the monitoring system and nurse performance at at Dr. H. Soewondo Kendal Regional Hospital. The results of the data analysis using the SEM-PLS approach reveal that interpersonal communication, professionalism, and competence significantly affect the monitoring system, indicating that enhancing the quality of individual paramedics can strengthen the hospital's internal supervision mechanisms.

Furthermore, interpersonal communication and professionalism have a direct positive impact on nurse performance, while competence does not directly influence performance but has an indirect effect through the mediation of the monitoring system. This emphasizes the crucial mediating role of the monitoring system in linking individual capabilities to measurable performance outcomes. The finding that competence does not directly influence performance

highlights the importance of the organizational context, suggesting that, at at Dr. H. Soewondo Kendal Regional Hospital, nurse performance is likely more influenced by structured supervision and standardized procedures than by individual discretion alone.

This underscores the need for HR policies that not only develop technical skills but also enhance institutional systems that guide and monitor performance. The coefficient of determination (R^2) values of 0.79 for the monitoring system and 0.73 for nurse performance further demonstrate the model's strength in explaining variable relationships. In conclusion, strengthening interpersonal communication, professionalism, and competence, alongside the implementation of a robust and structured monitoring system, offers an effective strategy for improving paramedic performance. These findings suggest that public hospital human resource strategies should balance individual capacity development with systematic performance oversight, and future research should explore this model in various healthcare institutions to broaden its applicability.

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