



# The Effect of Effective Leadership on Nurse Performance in the Application of Patient Safety at Aji Muhammad Parikesit Hospital Tenggarong with Motivation and Workload as Intervening Variables

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ARTICLE INFO	ABSTRACT
<p>Published Online: 07 April 2022</p> <p><b>Corresponding Author:</b> Ambar Putri Widjaya</p>	<p><b>Background:</b> Patient safety is the core of the quality of health services in hospitals. To achieve this requires a strong commitment from each individual and team. Various ways are done to improve the quality of service in hospitals, one of which is by increasing the performance of nurses in the application of patient safety. As one of the components of human resources who work directly on the front lines, nurses have more time to deal with patients.</p> <p><b>Methods:</b> This study uses quantitative research methods to test and prove the hypotheses that have been made. The number of samples is 76 respondents using a Likert scale questionnaire research instrument which will be analyzed using Structural Equation Modelling-Partial Least Square (SEM-PLS) with SmartPLS 3.2.9.</p> <p><b>Results:</b> Motivation and workload can play a good role as intervening variables. The direct influence of effective leadership, workload, and work motivation showed significant and positive results on the performance of nurses in the application of patient safety in the inpatient room of AM Parikesit Hospital, Tenggarong.</p> <p><b>Conclusion:</b> There is a positive and significant influence on effective leadership, workload, work motivation on nurse performance, as well as motivation and workload that can be an intervening variable in this study.</p>
<p><b>KEYWORDS:</b> Effective Leadership, Work Motivation, Nurse Performance, Patient Safety, Workload</p>	

## I. PRELIMINARY

The hospital is an institution that provides health services, including the provision of inpatient care, outpatient care, and emergency services [5]. Patient safety is a system of providing nursing care to patients so that safety is under control. The patient safety system consists of risk assessment, identifying and managing those related to patient risk, reporting and analyzing incidents, learning from incidents and subsequent actions, and implementing ideas to minimize risks, so the hope is that the patient safety system can prevent injury incidents. Nurses are professionals who have an essential role as part of the hospital's function. In this case, nurses carry out their duties as staff who are bound to cooperate with patients. As part of the team, the breadth of the nurse's role can allow for the risk of negligence when carrying out health services [2]. Nurse performance is the key to success in achieving nursing service goals. Research shows that nurse performance affects several things, such as leadership, work motivation, and workload. With the existence of effective leadership, it is hoped that there will

be an increase in the performance of nurses so that the quality of service in hospitals will increase [3].

Based on the research [11] found an adjusted odds ratio of 65.38 in the aspect of competence. The research findings explain that 82.19% of nurses have an excessive workload, but their work results are promising. According to [6], some factors influence nurses' work motivation, which is high in proportion to their high workload, namely the existence of a nursing code of ethics, human values, and concern for others. Research [16] found that knowledge, motivation, and workload had a significant effect on patient safety performance.

There are three factors that influence the work of nurses, namely individual (skills and abilities, history, and demographics), psychology (motivation, attitude, perspective, personality, and learning), and organization (leadership, workload, resources). Resources, compensation, job structure, supervision, and co-workers) [4]. Nurses as medical personnel who often contact patients are considered

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to have an important role in the success of patient safety. Nurses as health workers have direct service contributions and relatively much time providing nursing care to patients. The quality of hospital services oriented to patient safety is inseparable from the role of nurse performance. Nurse performance appraisal is vital in implementing patient safety programs. This study aims to determine the effect of effective leadership on the performance of nurses in the application of patient safety with motivation and workload as intervening variables.

### II. METHOD

The quantitative research method is to test the effect of effective leadership, workload, and work motivation on the performance of nurses regarding the application of patient safety in the inpatient room of Aji Muhammad ParikesitTenggarong Hospital with the subject of nurses serving in the inpatient room of Aji Muhammad ParikesitTenggarong Hospital, using a total sample of 76 nurses who met the inclusion and exclusion criteria—collecting data using a Likert scale questionnaire. The analysis method uses Structural Equation Modeling-Partial Least Square (SEM-PLS) SmartPLS 3.2.9. The calculation of the PLS 2 models consists of the Outer Model Measurement and the Inner Model Measurement, while the variables used are:

Exogenous Variables: Effective Leadership, Workload, Work Motivation

Endogenous Variable: Nurse Performance

Intervening Variables: Work Motivation and Workload

### III. RESULT

#### Outer Model Measurement

##### Convergent Validity

Evaluating the convergent validity of the assessment is based on the correlation between the component values and the constructed value, or the assessment is based on the loading factor. The loading factor assessment of 0.5 or more is stated to have strong enough validation so that it can explain other constructs [22].The question consists of 80 questionnaire questions for the four variables, and no indicator has a loading factor value of less than 0.5.

##### Discriminant validity

It is based on the cross-loading measurement construct to measure the discriminant validity of the measurement model with assessment indicators. If the construct correlation on the measurement item is greater than the size of the other constructs, then the latent construct can describe the measurement with the block better than the size of the other blocks. Discriminant validity can be assessed by considering the Average Variance Extracted (AVE) value, where the model is said to be good if the AVE construct value is  $> 0.5$ .

**Table 1.** Average Variance Ecxtracted (AVE)

Construct	AVE
Workload	0,747
Effective leadership	0,806
Motivation	0,758
Performance	0,866

**Table 2.** Fornell-Lacker Criterion

	Worklo ad	Effective Leadershi p	Performa nce	Motivation
Workload	0,864			
Effective leadershi p	0,473	0,898		
Performa nce	0,662	0,733	0,931	
Motivatio n	0,600	0,666	0,805	0,870

Based on table 2, the root of the AVE (Fornell-Larcker Criterion) in each construct is more significant than its correlation value with other variables; thus, the valid model can be explained, and the discriminant validity value is fulfilled.

#### Validity and Reliability Test

The validity test was carried out on four variables, namely effective leadership, workload, motivation, and nurse performance in the application of patient safety. Convergent validity has a relationship with the principle that the measure of a construct must have a high correlation. Convergent validity means that all indicators represent one latent variable as the basis. The rule of thumb used as a convergent validity test includes outer loading  $> 0.5$  and average variance extracted (AVE)  $> 0.5$  [23].

Measurement of instrument reliability uses two criteria consisting of Cronbach's alpha and composite reliability. Cronbach's alpha is a measurement of the lower limit of the reliability assessment on the construct and composite reliability, the measurement of the reliability value on the construct. The assessment of composite reliability is better by using an estimate of the internal consistency of the construct [23]. Based on the research findings, Composite reliability is used for reliability testing. The rule of thumb is that the value of alpha or Composite reliability must be greater than 0.7; thus, a value of 0.6 can be accepted.

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**Table 3.** Composite reliability

Construct	Composite reliability
Workload	0,985
Effective leadership	0,989
Motivation	0,982
Performance	0,992

**Table 4.** Cronbach’s alpha

Construct	Cronbach’s alpha
Workload	0,984
Effective leadership	0,988
Motivation	0,981
Performance	0,991

Tables 3 and 4 show that the four research variables have composite reliability and Cronbach's alpha values of more than 0.7, so the variables used in this study can be reliable. The validity test uses an Average Variance Extracted (AVE) assessment with a limit rating of > 0.5. In table 3.1, it can be seen that the four variables have an AVE value > 0.5, meaning that all indicators and variables can be said to be valid.

**Inner Model Measurement**

Tests on the structural model carried out have the R-squared value. R-squared is a measurement of the level of goodness of fit if the structural model uses values to measure how much the independent latent variable can affect the latent dependent variable

**Table 5.** Inner model testing

	R Square	Adjusted R Square
<b>Performance</b>	0.755	0.745
<b>Motivation</b>	0.549	0.536

The results of the R-squared in this study have a value of 0.549 and 0.755, so it can be indicated that the model is categorized as moderate and good.

Table 6. Summary effect of effective leadership, workload and motivation on performance with workload and motivation as intervening variables.

Variable Effect		Direct	Intervening		Total	P values
			Motivation	Workload		
Workload	->	0,241	0,164	-	0,405	<b>0,001</b>
Performance						
Workload	->	0,367	-	-	0,367	<b>0,012</b>
Motivation						
Effective leadership	->	0,476	-	-	0,476	<b>0,000</b>
Workload						
Effective leadership	->	0,321	0,412	-	0,733	<b>0,000</b>
Performance						
Effective leadership	->	0,492	-	0,175	0,666	<b>0,000</b>
Motivation						
Motivation	->	0,447	-	-	0,447	<b>0,003</b>
Performance						

From the path coefficient above, we can see that the original sample value, p-value, or t statistics are used as a reference to decide whether the hypothesis is accepted or the hypothesis is rejected. The hypothesis can be accepted if t statistics > t table value or p-value < 0.05.

**IV. DISCUSSION**

The findings prove that effective leadership, workload, and work motivation significantly affect nurse performance in implementing patient safety at A. M. ParikesitTenggarong Hospital. Leadership has an essential role in achieving a group's goals; influential leaders are leaders who successfully influence their subordinates to work together in productivity and achieve job satisfaction [21]. Research [8] mention that leadership style has a vital role in improving nurse performance. Leadership style will affect nurses' work motivation and performance [12]. The implementation of nursing leadership is the responsibility of nurses; with effective leadership, it is hoped that the performance of nurses will increase, then the service will become more qualified [3].

Based on the findings, it was found that the workload had a significant effect on the performance of nurses in the application of patient safety. In line with [11], mentioning a high workload can improve the performance of nurses. Research [20] also mentions that a high workload can improve employee performance, but overloading it will reduce performance. Research [18]; [19] found the effect of workload on employee performance. Several aspects influence the workload with total nurses, total patients in care, length of shift or daily working hours, and work capacity [7].

From the findings, it was found that motivation had a significant effect on the performance of nurses. In general, increased performance has a relationship with high motivation because motivation is a driving force behind the goal to be successful at work. Research [17] states that if someone has the motivation or is motivated, he will have the effort to achieve his goals. Research [16] which states that motivation affects performance in the application of patient

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safety. Several studies whose results support this research include [14], finding there is a relationship between motivation and the performance of implementing patient safety programs at the Intensive Care Installation of RSUD Dr. Moewardi Surakarta, Research [10], found that there was a significant relationship between internal motivation factors and external motivational factors with the performance of nurses in the inpatient room at Panembahan Senopati Hospital Bantul. Research [15] found a significant relationship between work motivation and implementing nurses' performance in implementing patient safety at Hasanuddin University Hospital.

From the findings, it is known that workload affects work motivation, where motivation is a critical element in nursing because nursing services significantly contribute to the quality of health services. In line with [13], they found that the workload was related to nurses' work motivation in implementing nursing care. The high workload of nurses will affect their motivation to work; nurses who are motivated while doing their work will affect the success of work to implement patient safety. According to [6], various factors influence the work motivation of nurses who are said to be high in proportion to their high workload, namely the existence of a code of ethics, human values, and concern for others.

From the findings, it is known that effective leadership has a significant effect on nurses' workload. In carrying out their roles and obligations as nurses, there are various kinds of things or activities included in the workload of nurses. The number of nurses, the number of working hours will determine and affect the workload in the nursing service unit [12]. Research [24] carried out in Pakistan, found a leadership style with a workload where the transformational leadership style had a significant effect on nurses' workload, reducing disappointment and increasing the confidence of nurses to carry out their duties.

From the findings, it is known that motivation and workload can be intervening variables in mediating the influence of each variable. Quoting from [9], there are several motivational concepts; the first is the Maslow Motivation Concept which states that the emergence of motivation is influenced by the needs or desires of each individual, explaining that motivation is individual desire. According to Herzberg's Motivation Concept, motivation comes from hygiene factors and motivator factors. On the other hand, commitment is often associated with a way to increase interest in their work so that they can form a strong bond with the organization. The stronger the bond with the organization, the more they will work hard for the organization. Having a high enough desire will benefit the organization, so it is essential to create a strong motivation for each individual. The high workload of nurses will affect

their motivation to work. The higher the working hours obtained by nurses, the possibility of nurses having motivation when doing their work will affect the success of their work in implementing patient safety. Nurses can be motivated by their leaders to make work a routine and make the job as an integrity, where nurses must have a love for the work itself so that with a high workload, work motivation will also increase.

Research [11] stated that nurses with a heavy workload of 82.19% had a good performance. In comparison, nurses with a light workload of 81.58% had good performance with high work motivation in doing their work, so it includes that the workload of hard work is not a barrier to increasing work motivation. According to [6], several factors influence nurses' work motivation. They are said to be high in proportion to their high workload, namely the existence of a nursing code of ethics, human values, and a sense of caring for others.

## V. CONCLUSIONS AND RECOMMENDATIONS

### Conclusion

1. The effective leadership of the head of the room has a significant influence on the performance of nurses in the application of patient safety in the inpatient room of Aji Muhammad Parikesit Hospital, Tenggarong
2. The workload of nurses has a significant influence on the performance of nurses in the application of patient safety in the inpatient room at the Aji Muhammad Parikesit Hospital, Tenggarong.
3. The motivation of nurses has a significant influence on the performance of nurses in the application of patient safety in the inpatient room of Aji Muhammad Parikesit Hospital, Tenggarong.
4. The effective leadership of the head of the room has a significant influence on the work motivation of nurses in the application of patient safety in the inpatient room of Aji Muhammad Parikesit Hospital, Tenggarong
5. The workload of nurses has a significant influence on the work motivation of nurses in implementing patient safety in the inpatient room of Aji Muhammad Parikesit Hospital, Tenggarong
6. The effective leadership of the ward head has a significant influence on nurses' workload in the inpatient ward of the Aji Muhammad Parikesit Hospital, Tenggarong.
7. Motivation can play a good role as an intervening variable in mediating the effect of workload variables on nurse performance in the application of patient safety
8. Motivation can play a good role as an intervening variable in mediating the effect of effective

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leadership variables on nurse performance in the application of patient safety

9. Workload can play a good role as an intervening variable in mediating the effect of effective leadership variables on motivation

### Suggestion

1. It is expected that the head of the room can improve his leadership ability to be able to improve the performance of nurses in the application of patient safety
2. It is hoped that the distribution of workloads can be equally distributed so that it can improve the performance of nurses in implementing patient safety
3. Nurses are expected to be able to increase motivation both internally and externally so that they can improve their performance of nurses in the application of patient safety
4. It is hoped that the head of the room can improve his leadership abilities so that he can increase the work motivation of nurses in implementing patient safety
5. It is expected that the workload can be adjusted or divided equally so that nurses can increase their work motivation in implementing patient safety
6. It is hoped that the head of the room can improve his effective leadership skills so that he can apply an even workload to nurses
7. It is hoped that nurses will be able to maintain or increase their motivation so that the assigned workload for each nurse can still improve their performance in the application of patient safety.
8. It is hoped that the leadership of the ward head will be able to motivate nurses in improving their performance of nurses in the application of patient safety
9. It is expected that the leadership of the ward head can maintain the division of workload among nurses in order to motivate nurses in implementing patient safety

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