

Relationship between Motivation, Competence, Workload, and Nurse Performance at Dr. Soediran Mangun Sumarso Hospital, Wonogiri, East Java

Agus Sutarto¹⁾, Hermanu Joebagio²⁾, Pawito³⁾

¹⁾Dr. Soediran Mangun Sumarso Hospital, Wonogiri, East Java

²⁾Faculty of Teaching and Educational Sciences, Universitas Sebelas Maret

³⁾Faculty of Social and Political Sciences, Universitas Sebelas Maret

ABSTRACT

Background: Health worker performance is one of the key elements that determine the quality of hospital service. Health worker performance therefore is the target for improvement. This study aimed to analyze the relationship between motivation, competence, workload of nurses, and nurse performance.

Subjects and Method: This was an analytical observational study with cross sectional design. This study was conducted at Dr. Soediran Mangun Sumarso Hospital, Wonogiri, Indonesia. A total of 50 nurses were selected for this study. The independent variables were of motivation, competence, and workload. The dependent variable was performance of nurse. The data were collected by a questionnaire and analyzed by a multiple linear regression.

Results: This study did not find relationship between motivation and performance of nurse ($b = 0.02$; 95% CI = -0.19 to 0.24; $p = 0.823$). Similarly there was no relationship workload and performance of nurse ($b = 0.05$; 95% CI = -0.15 to 0.26; $p = 0.607$). There was a positive and statistically significant relationship between competence and performance of nurse ($b = 1.10$; 95% CI = 1.75 to 0.46; $p = 0.001$).

Conclusion: There is a positive and statistically significant relationship between competence and performance of nurse.

Keywords: motivation, competence, workload, performance, nurse

Correspondence:

Agus Sutarto. Dr. Soediran Mangun Sumarso Hospital, Wonogiri, East Java. Email: agus_skh70@yahoo.co.id.

BACKGROUND

Hospitals as health service institutions must respond/responsive and be productive in meeting the needs of quality health services. The quality of health services should refer to the performance of health services. Complex services need to be professionally managed towards their human resources. The more perfect the appearance of health services, the more perfect the quality (Groves, 2014). One element that greatly determines the quality of hospital health services is health workers. The largest proportion of health workers in hospitals is

nurses, which is almost more than 50% of all human resources hospital. Given that the important role they have, nurses are required to have intellectual, interpersonal, technical and moral abilities. It aims to maintain and improve the quality of health services (Darmayanti, 2014).

The qualities of professional nursing care services are the targets to be achieved to improve quality in hospitals. This can be achieved through good nurse performance which will have implications for good service. The several factors that influence a nurse's performance include individual

factors, psychology and organization. Individual factors, for example, are motivation to improve the efficiency, effectiveness and performance of nurses so that they can improve the quality of services to the community (Nikpeyma, 2014).

In addition, the competencies possessed by nurses also affect the quality of services provided. Competent nurses are able to provide safe care in accordance with the responsibilities set by the nursing profession (Groves, 2014).

Organizational factors, for example, are workloads that have a close relationship with the quality of nurse performance. The number of tasks and responsibilities given to nurses can cause the results of services achieved to be less than optimal (Long, 2014). The development of competencies, motivations and workloads that are in accordance with the main tasks and functions, the quality of the performance of the nursing profession will be maximally focused on the professionalism in the field of nursing.

Based on the preliminary studies that the authors did, the profile of the efficiency of the Dr. Soediran Mangun Sumarso hospital in 2014 obtained bed occupancy ratio (BOR) data by 68.3% (ideally 60% -85%), average length of stay (ALOS) 4 days (ideally 6-9 days), turn over interval (TOI) 2 days (ideally 1-3 days), bed turn over (BTO) 70 (ideally 40-50 times), and the number of hospitalized clients reaches 17,272 people.

The number of nurses on duty in the inpatient installation was 138 out of a total of 241 nurses on duty at this hospital. The data shows that hospitals can be used properly by the community in health services. This means that the workload of nurses is huge and demands for improving nurse performance are urgently needed.

Based on the background above, the author became interested in conducting

study on the relationship between motivation, competence, workload of nurses and the performance of nurses at the Inpatient Installation of Dr. Soediran Mangun Sumarso hospital because of the high demand for quality nurse performance even though the motivation, competence, and workload of each nurse is different. This can affect the quality of health services provided for the community.

Motivation comes from the Latin word, *movere*, which means encouragement or driving force (Hendrarni, 2009). Motivation is the desire found in an individual which stimulates him to take action (Andayani, 2014). Whereas according to Tawale (2011), motivation is interpreted as a psychological need that has motivated work patterns or directions that exist within individuals that must be fulfilled so that their mental life is maintained, that is always in a comfortable balanced state (homeostasis, equilibrium).

Motivation strive to optimize the potential of employees to be able to work well, willing to work together to encourage improvement in employees' performance, so that they can be able to successfully achieve and realize predetermined goals (Toode, 2015). The strong or weak the work motivation also determines the size of his achievement. Higher work motivation makes a person has a high enthusiasm to provide the best service in order to achieve maximum performance.

Motivation in this study was developed based on McClelland's theory in Borowski (2015) that grouped into three human needs:

1. The need for achievement

The need to become superior or successful. High achievers tend to look for challenging tasks, assume personal responsibility for their performance, and need feedback to confirm their success (Yanti, 2013).

2. The need for power

Individual needs to influence others can be positive or negative. This need appears to someone who wants to influence others.

3. The need for affiliation

Individual needs to be liked and recognized by others. This need encourages someone to interact with each other.

Competence

Competence can be interpreted as the ability of a person which can be observed through knowledge, skills, and attitudes in completing a job or task with a set of performance standards (INNA, 2012). Competence in health services is used to define the professionalism of health workers by referring to certain standards as expectations of performance of these officers by using evidence based health science (Tafwidhah, 2010). Elements of competence including: knowledge, attitude, and skill (Azwar, 2011).

Workload

Workload is the ability of the body of the worker to accept the work (Choi, 2014). Every workload received by a person must be appropriate and balanced with the physical and psychological abilities of workers (Manuho, 2015).

Nursing staff workload is influenced by its function to carry out nursing care and its capacity to perform this function. The workload of nurses in regional hospitals includes reviewing, planning, and evaluating basic care for both individuals and community groups. The other task is to take care of sick people, protect patients from transmission and seek rehabilitation, and make simple records of patient development (Batuah, 2012).

The nurse is in charge of caring for the patient within 24 hours by applying nursing care, from the time the patient enters the hospital until discharged from

the hospital. Several aspects that are used to assess the workload of nurses:

1. Physical Aspects

The workload is determined from the tasks carried out based on the main function and additional tasks including the number of patients to be treated and their work capacity in accordance with the education obtained (Manuho, 2015)

2. Psychological aspects

Mental/psychological aspects emphasize more on interpersonal relationships between nurses and room heads, nurses and other nurses, and nurses and patients (Manuho, 2015).

3. Aspects of Working Time

Aspects of working time is the working time used in carrying out basic duties and functions of nurses and additional tasks in accordance with working hours that take place every day. If the working time that must be borne by the nurse exceeds its capacity, it will adversely affect the productivity of the nurse.

Nurse Performance

Performance is the result of the work of the personnel both quantity and quality in an organization (Makta, 2013). Good performance will be influenced by two things, namely the level of ability/ competence and good work motivation. A person's ability is influenced by his understanding of the type of work and the skill to do it.

Therefore, someone must be able to improve their abilities and skills. In addition, the contribution of work motivation towards performance cannot be ignored. Although the ability of employees is very good, if their work motivation is low, it will result in low performance (Sinambela, 2012).

The success of nursing services is largely determined by the performance of the nurses. The level of nurse performance can be measured based on several indicators.

The performance indicators include quality of work, efficiency in carrying out tasks, work discipline, initiative, thoroughness, leadership, and honesty of creativity. The demands and needs of quality nursing care in the future are challenges that must be prepared seriously, handled fundamentally, and carried out in a directed and earnest manner by the hospital (Yanidrawati, 2011).

This study aims to prove the existence of various factors related to the performance of nurses in the Inpatient Installation Dr. Soediran Mangun Sumarso hospital.

SUBJECTS AND METHOD

1. Study Design

The design of the study used was analytical study with a cross sectional approach. The study was conducted at Dr. Soediran Mangun Sumarso hospital, Wonogiri, East Java for 5 months.

2. Population and Sampling

The population of this study was nurses who worked in inpatient installation at Dr.

Soediran Mangun Sumarso hospital, as many as 138 nurses. In this study, the subjects were 50 nurses.

3. Study Variables

The dependent variable was nurse performance. The independent variables were motivation, competence, and workload.

4. Study Instruments

The data were collected by questionnaires and secondary data from the medical record section.

5. Data Analysis

Data were analyzed by a multiple linear regression

RESULTS

1. Univariate Analysis

The subject of study was male and female nurses. The male nurses were 22.0% and the female nurses were 78.0%. In the age category, the highest number of nurses who were working at the hospital was ≥ 35 years old (62.0%). While nurses aged < 35 years old were 38.0%.

Table 1. Characteristics of the subject of categorical data

Variables	Category	Frequency	Percent
Age	≤ 35 years	19	38.0
	> 35 years Total	31	62.0
Gender	Male	11	22.0
	Female Total	39	78.0
Education	Health nursing school	1	2.0
	Diploma of Nursing	26	52.0
	Bachelor degree of Nursing	20	40.0
	Professional Nurse	3	6.0
Length of work	< 5 years	5	10.0
	≥ 5 years	45	90.0
Training	< 3 times	38	76.0
	≥ 3 times	12	24.0
Motivation	Low	25	50.0
	High	25	50.0
Competency	Not good	22	44.0
	Well	28	56.0
Workload	Low	6	12.0
	Enough	30	60.0
	High	14	28.0
Nurse performance	Not good	18	36.0
	Well	32	64.0

The level of participation of nurses in training was still small. This was shown in Table 1, where most nurses attended training <3 times as much as 76.0% while nurses who attended training 3 times reached 24.0%. In terms of education level, the majority of nurses graduated from Diploma of Nursing as much as 52.0% and Bachelor degree of Nursing reached 40.0%. Nurses who took nursing professional education were still small (6.0%). Table 1 shows that most nurses had worked 5 years (90.0%).

In Table 1 it is known that the work motivation of the nurse in Dr. Soediran Mangun Sumarso hospital was low at 50.0%, while nurses who had high work motivation also reached 50.0%. The competencies of nurses were mostly in the good category,

which was 56.0%, while nurses who had low competence were 44.0%.

The workload of nurses at Dr. Soediran Mangun Sumarso hospital was included in the low category by 12.0%, medium workload was 60.0% and high workload category was 28.0%. Nurse performance in Dr. Soediran Mangun Sumarso hospital showed good results by 64.0% (Table 1), while nurses with poor performance were 36.0%.

2. Bivariate Analysis

a. The Relationship between Motivation and Nurse Performance.

Figure 1 shows there is no correlation between motivation and nurse performance with $r^2 = 0.467$. This meant that the performance of a nurse at Dr. Soediran Mangun Sumarso hospital is influenced by motivation.

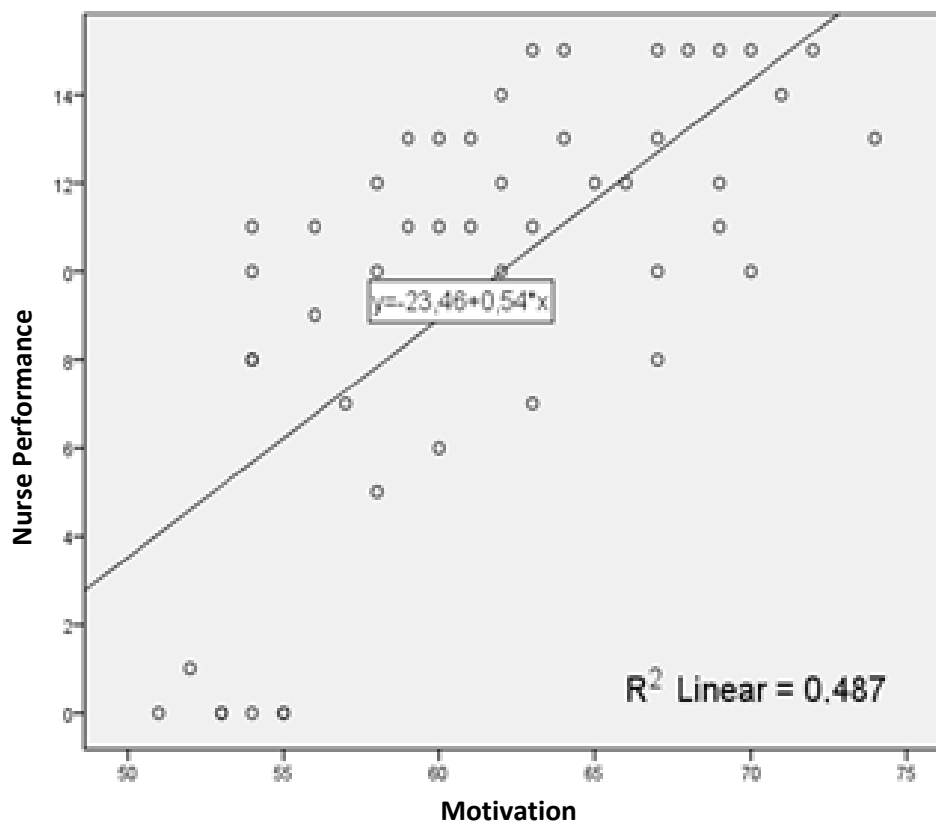


Figure 1. Relationship between motivation and nurse performance

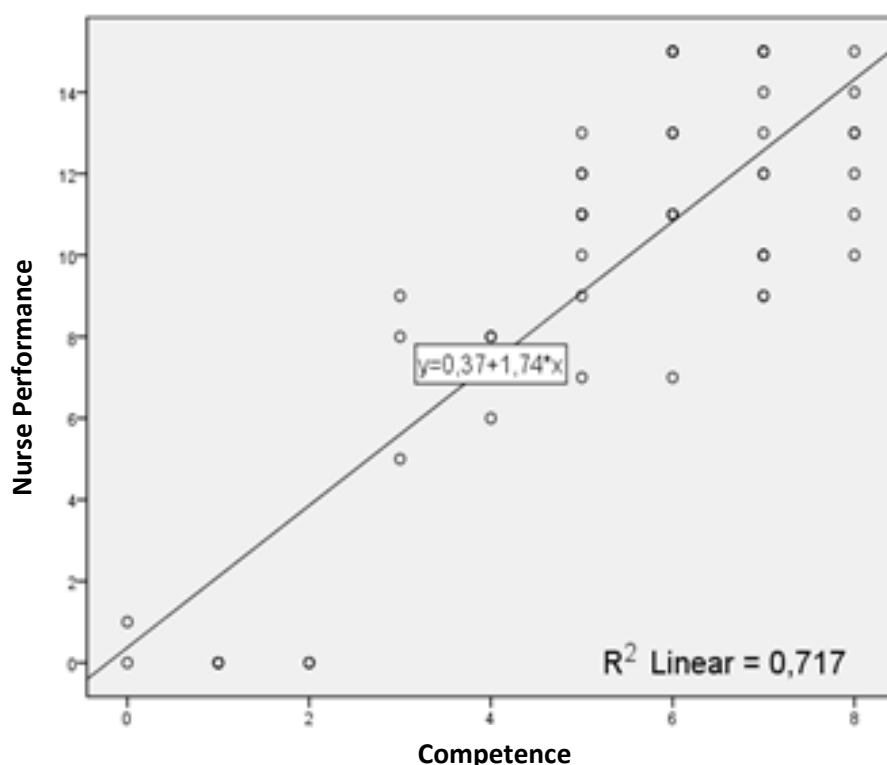


Figure 2. Relationship of competence with nurse performance

b. Relationship Between Competence and Nurse Performance

The relationship between competence and nurse performance is shown in Figure 2. In the figure, there is a positive relationship between competence and nurse performance with a value of $r^2 = 0.717$. This meant that the better the competencies possessed by a nurse, the better the nurse's performance in providing nursing services.

c. Relationship between Workload and Nurse Performance

The relationship between nurse workload and nurse performance by category was shown in Figure 3. The low workload category (<42) had a minimum performance value of 0 and a maximum performance value of 5.

Medium workload categories (42-52) had a minimum performance value by 10 and a maximum performance value by 14,

while a high workload category (≥ 53) had a minimum performance value of 6 and a maximum score of 11.

3. Multivariate Analysis

The relationship between motivation, competence, and workload and the performance of nurses at the inpatient installation at Dr. Soediran Mangun Sumarso hospital, were analyzed by multiple linear regression analysis model with the help of SPSS 18.0 program. The results of multiple linear regression analysis can be seen in Table 2.

There was a positive, linear and statistically significant relationship between motivation and performance of nurses at inpatient installations. Each unit increase of motivation would increase performance by 0.15 units ($b = 0.15$; 95% CI = 0.02 to 0.28; $p = 0.022$). There was a positive, linear, and statistically significant relationship between the competence and performance of nurses in the inpatient installation. Each unit in-

crease of competency would increase performance by 1.22 units ($b = 1.22$; 95% CI = 0.86 to 1.57; $p < 0.001$). There was a positive relationship, in the form of a linear curve

and an inverted U between the workload and the performance of nurses in inpatient installation.

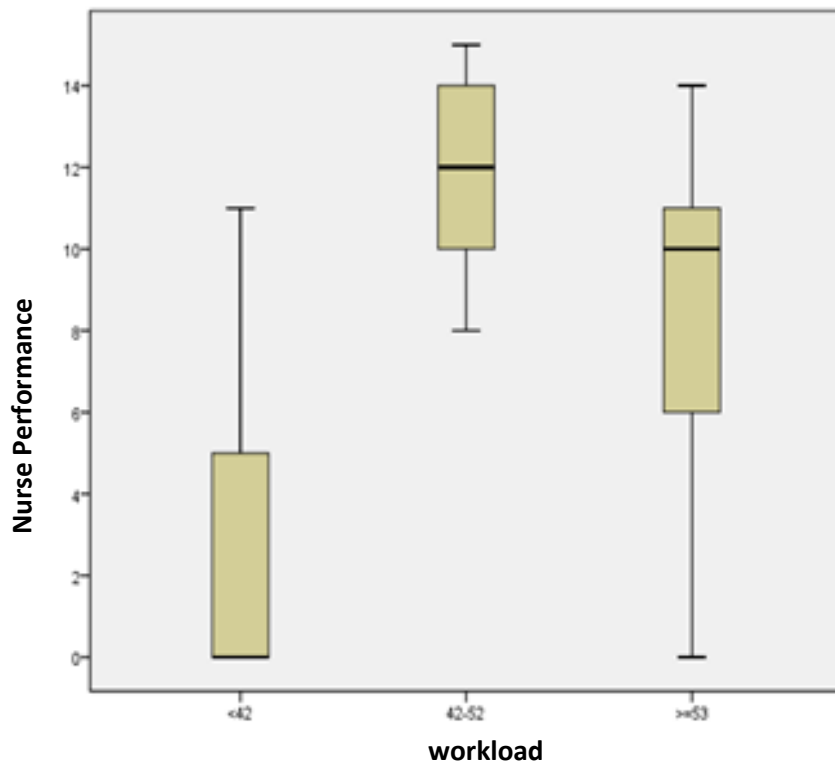


Figure 3. Relationship between workload and nurse performance

Table 2. The results of multiple linear regression analysis about the relationship between motivation, competence, and workload and nurse performance.

Independent Variables	b	95 % CI		p
		Lower limit	Upper limit	
Constants	-8.41	-15.22	-1.61	0.017
Motivation	0.15	0.02	0.28	0.022
Competencies	1.22	0.86	1.57	0.001
Workload	0.81	-1.37	2.99	0.459
Workload category	3.33	1.16	5.49	0.003
n observation = 50				
Adjusted R ² = 81.25%				
p= 0.004				

Nurses with workloads on average had a performance score of 3.33 units higher than light workloads and statistically significant ($b = 3.33$; 95% CI= 1.16 to 5.49; $p = 0.003$). Nurses with heavy workloads on average had a performance score of 0.81 units higher than light workloads, but these

differences were not statistically significant ($b = 0.81$; 95% CI= -1.37 to 2.99; $p = 0.459$). Adjusted R²= 81.25% implied that the three independent variables in the linear regression model, namely motivation, competence and workload, were jointly able to explain variations in nurse performance by 81.25%.

The $p < 0.001$ meant that overall the three independent variables had a statistically significant relationship with nurse performance.

DISCUSSION

Nursing services in hospitals are part of a comprehensive and continuous health service and play an important role in efforts to maintain and improve the quality of health services. The quality of health services influences the quality of hospital services and even becomes one of the determining factors for evaluating the performance of hospital health workers in the eyes of the community (Langingi, 2015).

Quality and professional nursing care services are targets to be achieved to improve quality in hospitals. This can be achieved through good nurse performance which will have implications for good service. Several factors that influence a nurse's performance include individual factors, psychology, and organization. Individual factors, for example, are motivation to improve the efficiency, effectiveness, and performance of nurses so that they can improve the quality of services to the community (Nikpeyma, 2014).

In addition, the competencies possessed by nurses also affect the quality of services provided. Competent nurses are able to provide safe care in accordance with the responsibilities set by the nursing profession (Groves, 2014). Organizational factors, for example, are workloads that have a close relationship with the quality of nurse performance. The number of tasks and responsibilities given to nurses can cause the results of services achieved to be less than optimal (Long, 2014). The development of competence, motivation, and workload in accordance with the main tasks and functions will make the quality of the nursing profession's performance to be maximized

focusing on the professionalism in the nursing world.

Improving nurse performance is determined by work motivation, competence and workload that are owned by nurses. Work motivation greatly affects the performance of nurses, because without encouragement from within a nurse, the work results shown will not be maximal. Competence is the basic ability of a nurse that is used as a reference to remain effective in the workplace in any situation that is considered influential on the performance of nurses. Workload can affect performance such as the number of tasks that must be completed by a nurse during a particular shift (Satria, 2013).

From the results of testing the hypothesis in Table 2, it is known that the study proved significantly that there is a relationship between motivation, competence, workload and nurse performance in the inpatient care Dr. Soediran Mangun Sumarso hospital ($p < 0.001$). The value of $R^2 = 81.25\%$ implies that the variables of motivation, competence and workload together can explain the variation in nurse performance by 81.25%.

Nurses provide nursing services in hospitals for 24 hours a day, and have constant contact with patients. Therefore hospital nursing services are an integral part of health services. Contributions given by nurses greatly determine the quality of hospital services. Efforts to improve hospital services must be followed by improving the quality of nursing services (Hendrarni, 2008).

Attention to increasing nurse performance in providing nursing services in hospitals is based on motivation, competence, and workload. These factors can shape the performance of nurses in hospitals so that it supports the implementation of duties and

responsibilities in providing nursing services (Hendrarni, 2008).

Employee performance is a synergistic result of a number of factors (Yanidrawati, 2011). In this study only competency variables affected nurse performance, while work motivation and workload did not affect nurse performance. Nurse performance is a synergistic result of a number of factors (Yanidrawati, 2011). In this study, there are three factors that influence the performance of nurses so that they are in a good category (Table 1), including individual factors, psychological factors and organizational factors.

Individual factors are internal factors within workers, such as good competence and high education (Table 1) will have an impact on good performance as well. Psychological factors are employees' perceptions of their work. Nurses have a high sense of responsibility towards their work in providing nursing services because it involves patient safety. Therefore, nurses will provide good performance because they carry out their responsibilities. Organizational factors, namely the existence of organizational demands on employees that will affect performance. Dr. Soedirnan Mangun Sumarso hospital requires nurses to be able to provide quality and professional nursing care services because hospitals want to achieve the target in order to improve the quality of hospital services.

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