

## The Influences of Leadership, Job Satisfaction, and Work Environment on the Performance of Health Workers

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### ABSTRACT

**Background:** Creating good and quality health services is inseparable from the performance of health workers which can affect the level of patient satisfaction. This study aims to determine the influence of perceived leadership, job satisfaction, and work environment on the performance of health workers at dr. Soediran Mangun Sumarso Hospital.

**Subjects and Method:** The study was conducted with a cross-sectional study design. The approach used was an analytical observational model with a sample size of 200 health workers. This study was conducted at dr. Soediran Mangun Sumarso Hospital, Wonogiri Regency in November-December 2023. A sample of 200 health workers was selected using stratified random sampling. The dependent variable in this study was the performance of health workers. Meanwhile, the independent variables in this study were perceived leadership, job satisfaction, work environment, age, and length of working. Data collection was carried out using questionnaires, and the data were analyzed using a double linear regression analysis model.

**Results:** Each 1 unit increase in the leadership score would be followed by an increase in performance score ( $b= 0.33$ ; CI 95% = 0.21 to 0.45;  $p<0.001$ ), job satisfaction ( $b= 0.14$ ; CI 95% = 0.06 to 0.21;  $p<0.001$ ), work environment ( $b= 0.26$ ; CI 95% = 0.06 to 0.46;  $p=0.010$ ), age  $\geq 37$  years ( $b= 0.19$ ; CI 95% = -0.90 to 1.29;  $p=0.728$ ), length of working  $\geq 10$  years ( $b= 0.94$ ; CI 95% = -0.16 to 2.04;  $p=0.093$ ).

**Conclusion:** There is an influence of leadership, job satisfaction, work environment, age, and length of working on the performance of health workers at Dr. Soediran Mangun Sumarso Hospital, Wonogiri.

**Keywords:** leadership, job satisfaction, work environment, age, length of working, performance

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### BACKGROUND

Hospitals are one of the services in the form of an organization carried out by well-organized medical professionals (Novela et al, 2018). A health worker, according to Law Number 38

of 2014, is defined as someone who is directly in charge of handling patients (Pemerintah Indonesia, 2014).

Based on the performance report of the government agencies of Soediran Mangoen

Soemarso Hospital in 2022, it is stated that Dr. Soediran Mangoen Soemarso Wonogiri Hospital has an average achievement of Minimum Service Standards (SPM) in 2020, reaching 95.51%, and has decreased by 0.42% to 95.09% in 2021. The Community Satisfaction Index (CSI) in 2020 has reached 82.65% and has decreased by 0.51% in 2021 to 82.14%. The achievement of professionalism index of Civil Servants of Regional General Hospital is 54.26%, with a 5.37% shortfall of the target of 66.0%. It happens because not all employees have undergone development through training/seminars/ workshops/ technical guidance (RSUD dr. Soediran Mangoen Soemarso, 2022).

Creating good and quality health services is inseparable from the performance of health workers, which can affect the level of patient satisfaction. (Rahmi, 2019). Performance issues always draw attention in management because they are closely related to the productivity of the institution or organization (Yuniarti, 2021). Leaders who are able to communicate and are able to benevolently relate to others (human relations) will more easily influence and drive others according to their wishes in achieving their desired goals (Gan & Voon, 2021).

Job satisfaction is an important thing that a person must have at work. Job satisfaction has a dynamic nature, meaning that satisfaction is not a fixed state because it can be influenced and can be shifted (Sutrisno, 2019).

The work environment is an environmental factor that can affect human behavior when working both physically and non-physically. The work environment has a direct influence on employee performance. A conducive work environment makes all employees perform their duties and roles optimally, the more conducive a work environment is, the more employee performance will improve (Wan, 2018).

Based on these problems, the researcher wants to identify "Analysis of the Influence of Perceived Leadership, Job Satisfaction, and Work Environment on the Performance of Health Workers at Wonogiri Hospital".

## SUBJECTS AND METHOD

### 1. Study Design

This was a cross-sectional study conducted at dr. Soediran Mangun Sumarso Hospital, Wonogiri, Central Java.

### 2. Population and Sample

The population in this study was health workers. The number of samples was taken based on 25 work units consisting of outpatient polyclinics and wards. A 200 health workers were selected using random sampling.

### 3. Study Variables

The dependent variable was work performance of health workers. The independent variables were perceived leadership, job satisfaction, work environment, age, and length of working.

### 4. Operational Definition of Variables

**Leadership:** Leadership is the behavior of an individual who leads the activities of a group to achieve a common goal. The data were measured using a questionnaire. The scale used was a continuous scale.

**Job Satisfaction:** Job satisfaction is an employee's psychological attitude towards the work done. The data were measured using a questionnaire. The measurement scale was a continuous.

**Work environment:** Everything that is around the worker and can influence him in completing all the tasks given to him. The data were measured using a questionnaire. The measurement scale was a continuous.

**Age:** The age of the individual is calculated from the time of birth to the birthday. The data were measured using a questionnaire and for the purpose of further analysis the scale was transformed to dichotomous.

**Length of working:** How long the employee has worked at the job he/she is currently doing.

### 5. Study Instrument

The study instrument used for the data collection was a questionnaire.

### 6. Data Analysis

Univariate analysis to obtain the frequency distribution and percentage of the characteristics of the study subjects. Bivariate analysis to analyze the difference between independent and dependent variables using a t-test with a significance level of  $p < 0.050$ , and Multivariate analysis using a multilevel multiple linear regression analysis model.

### 7. Research Ethics

Research ethics, including informed consent, anonymity, and confidentiality, were handled

carefully throughout the study process. The ethical clearance was obtained from the Research Ethics Committee of Dr. Moewardi Hospital in Surakarta on October 31, 2023.

## RESULTS

### 1. Univariate Analysis

Table 1 shows the sample characteristics. The average age of the study subjects was 36.54 years with the youngest age of 25 years and the oldest age was 57 years old. The average score of work performance was 12.55 ( $SD = 3.20$ ). The average score of environmental was 15.10 ( $SD = 2.07$ ). The average score of leadership style was 18.97 ( $SD = 3.45$ ). The average score of work satisfaction was 16.34 ( $SD = 5.14$ ).

**Table 1. Continuous data sample description**

Variable	Mean	SD	Min .	Max.
Age	36.64	7.38	25	57
Performance	12.55	3.20	2	14
Environment	15.10	2.07	4	16
Leadership	18.97	3.45	2	20
Satisfaction	16.34	5.14	1	20

Table 2 shows that based on the length of work, 106 study subjects (53%) had a length of working of less than 10 years and 94 study subjects (47%) had a length of working of 10 years or more. Based on the work unit, 4 study subjects (2%) worked in the neurological unit, 6 subjects (3%) in the dental unit, 15 subjects (7.5%) in the Dahlia ward unit, 1 subject (0.5%) in surgical unit, 13 subjects (6.5%) in the Asoka ward unit, 4 subjects (2%) in the ENT unit, 15 subjects (7.5%) in the Aster ward unit, 5 subjects (2.5%) in the internal medicine unit, 4 subjects (2%) in the pulmonary unit, 4 subjects (2%) in the cardiac unit, 3 subjects (1.5%) in the urology unit, 13 subjects (6.5%) in the Anyelir ward unit, 15 subjects (7.5%) in

the Anggrek ward 1, 3 subjects (1.5%) in the Ophthalmology unit, 16 subjects (8%) in the Bugenvil Ward, 12 subjects (6%) in the Cempaka ward, 3 subjects (1.5%) in the Psychiatric unit, 10 subjects (5%) in the Amarylis ward unit, 7 subjects (3.5%) in the Angrrek 2 Ward Unit, 12 subjects (6%) in the Teratai Ward unit, 5 subjects (2.5%) in the Anggrek Ward Unit, 16 subjects (8%) in the Melati Ward Unit, 5 subjects (2.5%) in the General Check-up Unit, 4 subjects (2%) in the Pediatric Unit, 5 subjects (2.5%) in the Obstetrics and Gynecology unit. 43 subjects (21.5%) served as doctors and 157 subjects (78.5%) served as nurses.

**Table 2. Categorical data sample description**

Variable	Frequency	Proportion (%)
<b>Length of working</b>	<b>n=200</b>	
<10 Years	106	53
≥10 Years	94	47
<b>Work Unit</b>	<b>n=200</b>	
Neurological	4	2
Dental	6	3
Dahlia Ward	15	7.5
Surgical	1	0.5
Asoka Ward	13	6.5
ENT	4	2
Aster Ward	15	7.5
Internal Medicine	5	2.5
Pulmonary	4	2
Cardiology	4	2
Urology	3	1.5
Anyelir Ward	13	6.5
Anggrek 1 Ward	15	7.5
Ophthalmology	3	1.5
Bougenvile Ward	16	8
Cempaka Ward	12	6
Psychiatric	3	1.5
Amarilis Ward	10	5
Anggrek 2 Ward	7	3.5
Teratai Ward	12	6
Anggrek 3 Ward	5	2.5
Melati Ward	16	8
General Check Up	5	2.5
Pediatric	4	2
Obstetric Gynecology	5	2.5
<b>Position</b>	<b>n=200</b>	
Medical Doctor	43	21.5
Nurse	157	78.5

## 2. Bivariate Analysis

Table 3 shows the influence of one independent variable on the dependent variable using the t-test. Participants with high leadership scores showed greater work performance (Mean= 12.98; SD= 2.73) compared to those with low leadership scores (Mean= 9.65; SD= 4.48),  $p < 0.001$ .

Health workers with high job satisfaction (Mean= 13.20; SD= 2.64) demonstrated significantly better work performance than those with low satisfaction (Mean= 11.83; SD= 3.61),  $p = 0.002$ , indicating that greater satisfaction may contribute to improved performance.

Work performance in the high working environment group (Mean= 13.09; SD= 2.79) was significantly higher than in the low working environment group (Mean= 11.27; SD= 3.75),  $p < 0.001$ .

Health workers aged ≥37 years (Mean= 13.09; SD= 2.55) had significantly higher work performance compared to those aged <37 years (Mean= 12.03; SD= 3.66),  $p = 0.018$ .

Health workers with ≥10 years of work experience had higher work performance (Mean= 13.14; SD= 2.29) compared to those with <10 years of experience (Mean= 11.92; SD= 3.74),  $p = 0.003$ .

**Table 3. The results of the bivariate analysis of factors affecting the performance of health workers at dr. Soediran Mangun Sumarso Hospital, Wonogiri, Central Java**

Variable	n	Mean	Std. Deviation	p
<b>Age</b>				
<37 Years	102	12.03	3.66	0.018
≥37 Years	98	13.09	2.55	
<b>Length of working</b>				
<10 Years	106	11.92	3.74	0.003
≥10 Years	94	13.26	2.29	
<b>Environment</b>				
Low	59	11.27	3.75	<0.001
High	41	13.09	2.79	
<b>Leadership</b>				
Low	26	9.65	4.48	<0.001
High	174	12.98	2.73	
<b>Satisfaction</b>				
Low	95	11.83	3.61	0.002
High	105	13.20	2.64	

### 3. Multivariate Analysis

Table 4 shows the results of multivariate analysis in this study using a multiple linear regression model of the influence of age, length of work, leadership, satisfaction, and environment on the performance of health workers. There were positive and significant associations between high leadership ( $b= 0.33$ ; CI 95% = 0.21 to 0.45;  $p<0.001$ ), work satisfaction ( $b= 0.14$ ; CI 95% = 0.06 to 0.21;  $p<0.001$ ), and work environment ( $b= 0.26$ ;  $p<0.001$ ),

CI 95% = 0.06 to 0.46;  $p=0.010$ ) on work performance of health workers.

Length of work  $\geq 10$  years increased work performance of health workers, but it was statistically marginally significant ( $b= 0.94$ ; CI 95% = -0.16 to 2.04;  $p=0.093$ ).

Being age  $\geq 37$  years old a positive influence on work performance among health workers, but it was statistically not significant ( $b= 0.19$ ; CI 95% = -0.90 to 1.29;  $p=0.728$ ).

**Table 4. The results of the multiple linear regression analysis of factors that affect the performance of health workers at dr. Soediran Mangun Sumarso Hospital, Wonogiri, Central Java**

Independent Variable	Coefficient Regression (b)	95% CI			p
		Lower Limit	Upper Limit		
Age ( $\geq 37$ years)	0.19	-0.90	1.29		0.728
Length of work ( $\geq 10$ years)	0.94	-0.16	2.04		0.093
Leadership (continuous)	0.33	0.21	0.45		<0.001
Satisfaction (continuous)	0.14	0.06	0.21		<0.001
Environment (continuous)	0.26	0.06	0.46		0.010
n observation= 200					
Adjusted R <sup>2</sup> = 36.79%					
p <0.001					

## DISCUSSION

In this study, it was discovered that there was a positive and significant influence of leadership on the performance of health workers at Dr. Soediran Mangun Sumarso Hospital, Wonogiri. This means that the better the leadership, the better the performance of health workers. On the contrary, the worse the leadership, the worse the performance of health workers. Leadership is the ability to convince and drive others to be willing to work together under their leadership to achieve certain goals. According to Iskamto et al (2020), leadership is one of the factors that affect employee performance. A consistent combination of philosophies, skills, traits, and attitudes that underlie a person's behavior is the hallmark of leadership.

This study is in line with a study of Doan et al (2020) which states that leadership has an important influence on organizational or employee activities. Good leadership is a leader who is able to provide influence, information and decision-makers in improving the organization or employee performance.

In this study, it was discovered that there was a positive and significant influence of job satisfaction on the performance of health workers at Dr. Soediran Mangun Sumarso Hospital, Wonogiri. This means that the better job satisfaction, the better the performance of health workers. On the other hand, the worse job satisfaction, the worse the performance of health workers. Job satisfaction is a person's feeling that comes up positively when the judgment comes from one's work. It is usually perceived that if employees are satisfied with their work, the employee's performance will be much better compared to employees who are not satisfied with their work (Khan et al, 2016). The importance of assessing the relationship between job satisfaction and job performance in organizational behavior ultimately leads to employee performance in an organization

(Lannoo & Verhofstadt, 2016). Many experts state that satisfied employees who are more likely to be present at work create a low absenteeism rate, make fewer mistakes at work, are more productive, and have a stronger intention to stay in the organization (Sanchez-Beaskoetxea & Coca Garcia, 2015).

This study is in line with a study by Matagi et al. (2022), which states that job satisfaction has a significant effect on employee performance. Employees who have good actions in the organization will have job satisfaction and loyalty as well as higher commitment to the organization, which directly impacts better employee performance in the organization.

In this study, it was discovered that there was a positive and significant influence of the work environment on the performance of health workers at Dr. Soediran Mangun Sumarso Hospital, Wonogiri. This means that the better the work environment, the better the performance of health workers. On the contrary, the worse the work environment, the worse the performance of health workers. The workplace environment plays an important role in shaping individual employee behavior. Therefore, the influence of the quality of the workplace environment can create motivation for employees to work hard so that they have good performance (Hafeez et al, 2019).

This study is in line with a study by Zhenjing, et al (2022) which states that a positive or good work environment can improve the achievement of employees' fighting skills and employees tend to bounce back in difficult situations. A good work environment can also increase employee commitment and employees tend to provide good quality work for the company or organization. It can also be concluded that employee commitment has the potential to improve employee job performance, because employees show a higher level of task performance when they are committed to

their company or organization so that employees with higher ability to work and achievement tend to show a higher level of task performance.

In this study, it was discovered that there was a positive influence of age on the performance of health workers at Dr. Soediran Mangun Sumarso Hospital, Wonogiri, however it was insignificant. This means that the older the age, the better the performance of health workers. The decline in employee performance as they age can be balanced by superior performance in other areas such as work experience and problem-solving skills (Gupta and Aggarwal, 2021).

This study is in line with a study of Kenku and Aluko (2020) which states that age is a demographic variable that affects employee performance. This study is in line with the a study by Harahap (2019) that states increasing age will improve performance, the older a person, the more mature a person, he/she can have more life experience. As we get older, we become more mature in mental and intellectual matters so that we can make wise decisions.

In this study, it was discovered that there was a positive but less significant influence of the length of work on the performance of health workers at Dr. Soediran Mangun Sumarso Hospital, Wonogiri, this means that the longer the length of work, the better the performance of health workers.

This study is in line with Lubis' (2022) study, which states that the length of work has a positive effect on employee performance. The longer an employee's job tenure, the more his skills and ability to do his or her job will increase. A person's experience of carrying out work continuously can increase his technical maturity (Pamungkas et al, 2017).

## AUTHOR CONTRIBUTION

All authors have made significant contributions to the data analysis as well as preparing the final manuscript.

## CONFLICT OF INTEREST

The author states that there was no conflict of interest.

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