

# EFFECT OF OCCUPATIONAL SAFETY AND HEALTH ON PERFORMANCE: AN EMPIRICAL INVESTIGATION

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## Abstract

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*Employees are important assets of the organization, so many things that need to be considered related to improving performance. An employee's performance will be in accordance with the wishes of the company if the quality of human resources is good. Good performance can also be supported by the presence of occupational safety and health guarantees from the company. The Implementation of the Occupational Safety and Health (OSH) system also influences employee performance. This study aims to determine the effect of Occupational Safety and Health (OSH) on the performance of midwives at the XYZ Islamic Hospital Fetomaternal Installation Riau Province, Indonesia. The results of analyze of primary data using SPSS Version 23, it can be concluded that the work safety variable has a significant effect on performance, knowing that occupational health variables have a significant effect on performance. In addition, it can be concluded that occupational safety and health variables together have a significant influence on performance variables.*

**Keywords:** *Safety, Occupational Health, OSH, Performance*

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## **Introduction**

Occupational Safety and Health System needed for production sources, production processes, and a safe work environment so that, can guarantee the safety and health of workers and other people who are in the work environment (Gbadago et al., 2017). A good Occupational Safety and Health system makes employees not worried about their safety so that the results of work or employee performance will be better. The company is obliged to improve Occupational Safety and Health (OSH). The company's obligation to improve OSH is as follows: 1) Choosing a safe and healthy workplace for workers. 2) Comply with all standards and terms of employment. 3) Record all incidents that occur related to occupational safety and health.

The issue of occupational safety and health is the responsibility of all stakeholders, especially employers, labor, orders, and the community. Occupational Safety and Health (OSH) is an effort to prevent and reduce the risk of accidents and occupational diseases by recognizing things that could potentially lead to work-related accidents and diseases as well as anticipatory actions in the event of accidents and occupational diseases. Occupational safety and health programs are very beneficial for both hospitals and hospital workers, especially nurses both now and in the future. OHS is expected to be influential in terms of the ability to maintain workforce satisfaction so that it will encourage them to work well and succeed in terms of quality and quantity related to performance.

The purpose of the Occupational Safety and Health (OSH) program is to reduce costs when accidents and occupational diseases occur. Occupational Safety and Health (OHS) should be a top priority in a hospital, but unfortunately, not all hospitals understand the importance of OHS and know how to implement it well in the hospital environment. The potential for hospital losses due to the weak implementation of OSH include the disruption of processes and the repair of equipment damaged by workplace accidents and the company losing opportunities to gain profits due to low employee productivity (Gbadago et al., 2017).

Based on the background of the problems that have been described, the formulation of the problem in this study is: "Does Occupational Safety and Health (OSH) affect the performance of the Fetomaternal Installation Midwife XYZ Hospital". Research Objectives Based on the formulation of the research problem, the purpose of this study was to determine the effect of Occupational Safety and Health (OSH) on the performance of midwives in the Fetomaternal Installation of XYZ Islamic Hospital, Especially Inpatient Rooms Fetomaternal Installation.

The results of analyze of primary data using SPSS Version 23, it can be concluded that the work safety variable has a significant effect on performance, knowing that occupational health variables have a significant impact on performance. In addition, it can be concluded that occupational safety and health

variables together have a substantial influence on performance variables.

## **Literature Review**

Employee performance is a very important thing in the company's efforts to find its goals (Rivai, 2012: 309). According to Nawawi (2009: 66), performance can be interpreted as what is done or not done by an employee in carrying out his main tasks. In practical terms carrying out work in an organizational environment includes five elements as follows: 1) Quantity of work achieved. 2) The quality of work achieved. 3) The time period to achieve the work. 4) Attendance and activities while present at work. 5) Ability to work together (Nawawi, 2006: 67).

Based on the above understanding means that performance is an activity that can be seen and observed to achieve the expected results or objectives in accordance with the responsibilities given. It can be stated that the notion of performance is a result of work that can be accomplished in both quality and quantity by a person or group of people in an institution. To accomplish organizational objectives, in accordance with their various authorities and responsibilities.

## **Work Safety**

According to Mondy and Noe (Marwansyah, 2016: 359), Work safety includes protecting employees from work accidents. Work safety is a safe or safe condition from work damage or loss. Occupational safety risks are aspects of the work

environment that can cause fire, electric current fears, cuts, bruises, sprains, broken bones, loss of organs, vision, and vision.

### **Work Safety Indicator**

According to Marwansyah (2016: 362), indicators of work safety are:

- a. Safe working conditions. The use of machines equipped with safety devices, layout settings, adequate lighting.
- b. Good maintenance of facilities. Keep the floor and stairs free of water, oil, and others.
- c. Use of safety instructions Availability of prohibitions and guidelines for the use of equipment.
- d. Provision of equipment as an accident prevention tool Preventive equipment, for example, fire prevention equipment, emergency exits, help in the event of an accident.

### **Occupational Health**

According to Husni (2005: 140), occupational health is a part of health science which aims to ensure that the workforce gets a perfect health condition both physically, mentally, and socially so that it can work optimally. According to Suma'mur (2007: 76) occupational health is a specialization in health / medical science and its practice aimed at getting workers / communities and obtain the highest degree of health, both

physical, mental, and social, with preventive efforts and curative, against diseases / health problems caused by work factors of the work environment as well as against common diseases.

The occupational health strategy is closely related to the identification and control of health hazards caused by fatigue, stress, noise, radiation and other toxic substances on the physical condition of humans, minds, and attitudes of the employees. Health as a scientific approach and practical approach also seeks to study the factors that can cause people to suffer from illness and at the same time, try to develop various ways or approaches to prevent people from suffering from illness and even become healthier (Gopang et al., 2017). In occupational health, including physical and mental health, employee health can occur due to illness, stress, or due to an accident. Therefore visual disturbances, hearing fatigue, work environment (for example temperature and humidity), and others need to be eliminated or minimized as much as possible.

### **Effects of Occupational Safety and Health on Performance**

Achieving the highest standards for employee safety and health is important because it will have an impact on employee performance and organizational performance, Marwansyah (2016: 338). A safe work environment makes workers healthy and productive. Study by Dwomoh et al. (2013) has shown that the company's health and safety measures are positively correlated with the performance of its employees. If the company can reduce the level and severity of work accidents, illness and

matters related to stress, as well as improve the quality of work life of its work, the company will be more effective (Kaynak et al., 2016). Improvements in this case will result in improved performance due to decreasing the number of workdays lost. Increased efficiency and quality of workers who are more committed (Yulihardi & Iskamto, 2018).

### **Hypothesis**

Based on the problems we know with the theory, the following hypothesis is obtained: "It is suspected that occupational health and work safety have a significant effect on the performance of Midwives in the Inpatient Room of the XYZ Islamic Hospital."

### **Research Variables**

Based on the problem, as for safety and health work will affect the performance of midwives on Islamic Hospital Riau Province with the following research variables: Occupational Safety (X1), Occupational Health (X2) and Performance (Y).

### **Methodology**

This research is a quantitative research using SPSS Version 23 as a data processor. The location of this research was carried out in the Fetomaternal Inpatient Room of XYZ Islamic Hospital Riau Province Indonesia. Population and Samples, In this study the sample taken was the entire population because given the population numbered 50 people, According to Iskamto

(2017: 35) stated to take all sample if the subject is less than one hundred better to take all. So that the subject of this research is the population (Talib, 2013).

## **Result and Discussion**

The purpose of this study was to determine the effect of Occupational Safety and Health (OSH) on the performance of midwives at the Fetomaternal Installation of Islamic Hospital, Riau Province, Indonesia. After distributing the questionnaire and processing the data using SPSS version 23, the following results are obtained. Characteristics of respondent data presented in the table below:



Table 1: Characteristics of Respondents

	Number	Percentage (%)
<b>Gender</b>		
woman	50	100
Man	0	0
<b>Education</b>		
Diploma	46	92
Degree	4	8
<b>Age</b>		
<30	8	16
30-40	22	44
41-50	18	36
> 50	2	4
<b>Length of Work</b>		
<1 Year	4	8
1-5 years	22	44
>5 Years	24	48
Total	50	100

Source: Data Field, 2018.

From Table 1 above, it can be assumed that all respondents are women. So it was explained that the age below 30 years as 8 people (16%), aged between 30 years to 40 years as many as 22 people (44%), aged between 41 years to 50 years as many as 18 people (36%) and 2 (4%) age above 50 years. The respondent's educational level diploma level as many as 46 people (92%), and degree 4 people (8%). Also it can be seen that the characteristics of respondents by length of work, for a term of under 1 year are 4 people (8%) 1 to 5 years as many as 22 people (44%), and more than 5 years as many as 24 people (48%).

### Validity test

Validity is the appropriateness or accuracy of an instrument to measure what you want measured. Test to make a validity is a measure of whether respondents agree or disagree with the actual situation. To determine the value  $r_{\text{value}}$  can be obtained by the  $n-2$ ,  $50-2 = 48$ , to obtain  $r_{\text{value}}$  value of 0.278.

Table 2: Test Validity of Safety

No. of Item	$r_{\text{value}}$	$r_{\text{table}}$	Information
1	0.516	0.278	valid
2	0.403	0.278	valid
3	0.284	0.278	valid
4	0.360	0.278	valid
5	0.297	0.278	valid
6	0.282	0.278	valid
7	0.528	0.278	valid
8	0.421	0.278	valid
9	0.317	0.278	valid
10	0.454	0.278	valid
11	0.458	0.278	valid
12	.355	0.278	valid

From the above table can be seen  $r_{\text{value}}$  value for each statement on the safety of the variable is greater ( $>$ ) than the value  $r_{\text{table}}$  (0.278), it can be concluded that the data is valid

No. of Item	r_value	r_table	Information
1	0.375	0.278	Valid
2	0.339	0.278	Valid
3	0.662	0.278	Valid
4	0.402	0.278	Valid
5	0.418	0.278	Valid
6	0.516	0.278	Valid
7	0.491	0.278	Valid
8	0.519	0.278	valid
9	0.766	0.278	valid
10	0.327	0.278	valid
11	0.385	0.278	valid
12	0.286	0.278	valid

It can see r\_value from the table above for each statement on the health variable is greater (>) than the value r\_table. It can be concluded that all items of the data is valid.

Table 4: Test Validity of Performance

No. of Item	r_value	r_table	Information
1	0.572	0.278	valid
2	0,407	0.278	valid
3	0,482	0.278	valid
4	0.497	0.278	valid
5	0.475	0.278	valid
6	0.611	0.278	valid
7	0.300	0.278	valid
8	0.437	0.278	valid
9	0,312	0.278	valid
10	0.422	0.278	valid
11	0.410	0.278	valid
12	0.436	0.278	valid

From the above table can be seen r\_value value for each variable kinerjalebih statement on large (>) from r\_table value, it can be concluded that the data is valid.

### **Reliability test**

Reliability test is used to determine whether the respondents from time to time have the same answer / consistent or not. In this study, the method used is the Cronbach's Alpha method, which requires Cronbach's Alpha value > 0.60 then the data is relibel or trustworthy (Talib, 2013). The following reliability test results:

Table 5: Test Reliability

No.	Cronbach's Alpha	Information
Safety (X1)	0.756	reliable

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Occupational Health (X2)	0.809	reliable
performance (Y)	0.803	reliable

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From Table 5 can be explained that the safety of the variable has a value of 0.756 and for the health variables of 0.809, while the variable performance of 0.803 for all of the variables value is greater than 0.60, it can be concluded that all the variables in this study is reliable or consistent, meaning that all of his statements can be unbelievable.

### Normality test

This normality test is used to see the distribution of the data if it is approached as diagonal lines or not, if far from the diagonal line, the data are not normally distributed. Here are the results SPSS output to normality.

**Normal P-P Plot of Regression Standardized Residual**

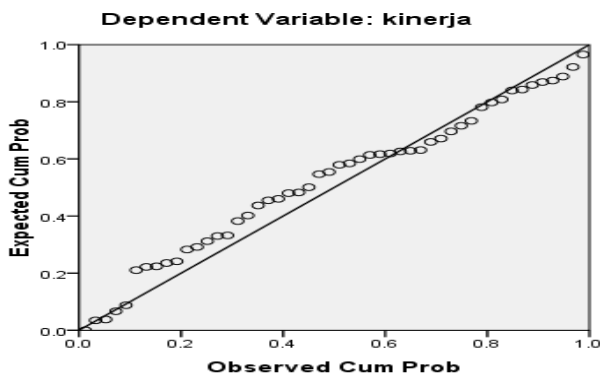


Figure 1: Normality Data

Based on the picture above, it can be explained that the distribution of the data is already approaching the diagonal line, it can be concluded that data is normally distributed.

### Multicollinearity test

This analysis aims to determine whether the independent variables affect each other, Presence or absence of multicollinearity problems in a regression model can be detected with VIF (variance inflator factor) and the value of tolerance (tolerance) (Arikunto, 2010). A regression model is said to be free of problems multicollinearity if having VIF smaller than 5

and has a tolerance value above 0.0001 (Ghozali: 2008). In this regression model, multicollinearity test results can be seen from the following table:

**Table 6: Multicollinearity Test**

Model	Coef. unstandardized		SC	t	Sig.	collinearity Stat.	
	B	Std. Error	beta			tolerance	VIF
1 (Constant)	14 290	4,558		3,135	0.003		
safety	0.334	.136	0.367	2,459	0.018	0.465	2,151
health	0.354	.131	0.403	2701	0.010	0.465	2,151

a. Dependent Variable:  
performance

Based on table 6 that the VIF value in the above table shows that the variables in this study did not experience multicollinearity. This is indicated by VIF is smaller than 5, Whereas for Tolerance Values in the table above shows that all variables in this study did not experience multicollinearity, which is above 0.0001. It can be concluded that all variable smoking is not affected by the problem of multicollinearity or independent variables do not affect each other.

### **Hypothesis Partial test**

This test is used to see whether the independent variables have a significant influence on the dependent variable by 0.05.

Table: 7 Test\_t (Partial)

Model	Coef unstandardized		SC	t	Sig.
	B	Std. Error	beta		
1 (Constant)	14 290	4,558		3,135	0.003
safety	0.334	0.136	0.367	2,459	0.018
health	0.354	0.131	0.403	2.701	0.010

a. Dependent Variable:  
Performance

Based on the above table values obtained  $t_{\text{value}}$  safety variables by 2.459 while for  $t_{\text{table}}$  is 2.010. It can be concluded that the safety variables significantly influence the performance. Based on the above table values obtained  $t_{\text{value}}$  occupational health variables of 2.701 while for  $t_{\text{table}}$  value of 2.010. it can be concluded that occupational health significantly influence the performance. Based on the results  $t_{\text{test}}$  or individually (Partial), it can be concluded that the Independent variables have the greatest impact value is variable occupational health.

### Hypothesis Simultaneous Test (F Test)

Simultaneous test or F test is jointly test to test the variables significantly influence safety and health jointly to variable performance.



Table 8: Test\_F (Simultaneous)

ANOVA <sup>b</sup>						
Model		Sum of Squares	df	mean Square	F	Sig.
1	Regression	525.836	2	262.918	24.805	0.000
	residual	498.164	47	10.599		
	Total	1024.000	49			

a. Predictors: (Constant), safety, health

b. Dependent Variable: performance

Based on the above table 8 multiple regression results are obtained from the table above shows the Sig.  $0.000 < 0.05$ , the standar of error 5%. The value of 24.805 from  $f\_value$  it can be concluded that the variable of occupational Health and Safety jointly have a significant effect on the variable performance .

## Conclusion

Based on the results of research and discussion, it can be concluded this experiment are as follows: Score  $t\_value$  safety variables by 2.459 while for  $t\_table$  value of 2.010. It can be concluded that the safety variables significantly influence the performance of midwife. Score  $t\_value$  occupational health of 2.701 while for  $t\_table$  value of 2.010 it can be concluded that occupational health variables significantly influence the performance. other than that based on the results of the multiple regression analysis table above shows the Sig.  $0.000 < 0.05$ , the error rate of 5%. Or value of 24.805  $r\_table$  it can be concluded that the variable occupational Health and Safety jointly have a significant effect on the performance .

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