

## Analysis of the Application of Safety and Health Management System Work Against a Work Behavior and Conditions of the Work Environment in the dr. Harjono General Hospital of Ponorogo

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### ABSTRACT

The occurrence of accidents at work is largely caused by human factors (unsafe act), i.e., the behavior that is not secure. And the fraction is caused by environmental factors (unsafe condition). Therefore, to ensure the safety and health of the medical personnel, non-medic personnel nor others who visited the hospital, it takes an effort to minimize the risk of danger that exists, it needs to be applied to the safety management system and Occupational Health Hospital. The purpose of this research was to analyze the effect of the application of safety and health management system Work Against a work Behavior And environmental conditions of work at the Dr. Harjono General Hospital of Ponorogo. The research design was analytic observational with a quantitative approach. Research on variable i.e. application of the occupational health and safety management system (OHSMS) as the independent variable, the behavior of the working conditions and working environment as the dependent variable. This research population all employees in installations of polyclinics, inpatient care installations, medical record and pharmaceutical installation Dr. Harjono General Hospital of Ponorogo as many as 446 employees. Samples taken with the cluster random sampling technique as much as 258 respondents. Data is collected with instruments ceklist and processed in coding, editing, tabulating and scoring as well as tested with linear regression test. Linear regression results indicate that partially and simultaneously the value of p values there are shows so that  $0.05 < \text{influence}$  influence the application of safety and health management system Work Against a work Behavior And Work in environmental conditions at Dr. Harjono General Hospital of Ponorogo. The existence of the application of management system of safety and occupational health will create the most benefits to the maintenance of a good workforce that can be seen from the behavior of the work and the working environment.

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## INTRODUCTION

Entering the era of global industrialization as it is today, competitive competition is very tight to capture regional, national and international markets. Global standards and norms are the main requirements of industry practitioners to continue to be able to increase competitiveness in improving performance, and increase labor, but all of that is inseparable from Human Resources in which health and safety need to be considered (Hanifah, 2017).

The work will achieve maximum results if every element involved in it runs synchronously, both in terms of work tools, labor, and work material. To realize this, an effort is needed to ensure that harmonization between each of the elements involved is maintained, in the form of the application of an Occupational Health and Safety Management System (OHSMS) that is good in every sector of work. In line with Peraturan Menteri Tenaga Kerja No. PER-05 / MEN / 1996 that the Occupational Safety and Health Management System, hereinafter referred to as the K3 Management System, is part of the overall management system which includes the organizational structure, planning, responsibility, implementation, achievement, assessment and maintenance of health and safety policies work in the framework of controlling risks associated with work activities in order to create a safe, efficient and productive workplace. This is also based on Law No. 1 of 1970 concerning Occupational Safety Article 13 which states that anyone who will enter a workplace is obliged to comply with all work safety instructions and use required personal protective equipment. The application of Occupational Safety Health (K3) is increasingly important and becomes a standard that needs to be completed in the world of work, to optimize the work process and strive for minimal risk factors from all stages of implementation. If at each stage of the implementation process can be managed with good K3 standards, it is believed that the resulting material is of high quality and can be widely recognized and marketed (Johannes, 2016).

Each type and place of work has a different risk of danger. This is influenced by location, work process, work material, and tools used in carrying out the work. One of the high-risk jobs is a hospital. In general, people and workers in hospitals are less aware of the various potential hazards that exist. "Occupational illnesses in hospitals can attack all workers, both medical and non-medical workers" (Anies, 2015).

Most accidents in the workplace are caused by human factors (unsafe act), which is unsafe behavior. And a small part is caused by environmental factors (unsafe conditions). Therefore, to ensure the safety and health of medical personnel, non-medical personnel and other people who visit the hospital, an effort is needed to minimize the risk of existing hazards, so that all who are in the hospital can feel safe and comfortable. applied to the Hospital Occupational Safety and Health Management System (Hasbi, 2017).

A description of various kinds of hazard risks that can befall workers in the hospital. For example, infections, the danger of exposure to radiation, toxic chemicals, biological hazards, extreme temperatures, noise, dust, stress, falling, tripping, stumbling, stabbing and so on. Health care facilities specifically hospitals have also been identified as an environment where there are activities related to ergonomics including lifting, pushing, pulling, reaching, carrying objects and in terms of handling patients who have the potential danger of musculoskeletal disorders (OHSAS 18001, 2013).

The implementation of the Occupational Safety and Health program in a company can support the increase in labor productivity itself which will automatically provide benefits. Workplace accidents not only cause loss of life and material loss for workers and employers, but can also disrupt the production process as a whole, damage the environment which in turn will have an impact on the wider community (Kemenkes, 2016).

The Social Security Organizing Agency (BPJS) noted that the number of workplace accidents in Indonesia continued to increase. A total of 123,000 workplace accidents were recorded throughout 2017. Based on these statistics, the figure increased by around 20 percent compared to 2016. The total work accidents in 2017 were 123,000 cases with claim rates of Rp. 971 billion more, this figure increased from 2016 with a claim value of Rp 792 billion (BPJS Ketenagakerjaan, 2018). Based on data from the Department of Manpower and Transmigration, East Java Province, the incidence of work accidents has increased to 200 cases in 2017, with 21,631 work accident cases recorded in the East Java province (East Java Disnakertrans, 2018).

While in Dr. Harjono Ponorogo Regency itself in the period of January to September 2018 there were 4 cases of workplace accidents, namely the incidence of accidents to nurses with the type of needle punctured work accidents (K3 Committee Hospital Dr. Harjono, 2018).

The existence of work accident cases requires all management to pay serious attention to the program and the implementation of Occupational Safety and Health (K3) in the company's environment through the existing Occupational Health and Safety Management System (OHSMS) by always monitoring and evaluating its performance. There are three reasons for the need for work safety programs to be held, namely moral, legal, and economic. A company carries out accident prevention efforts solely on the basis of humanity. They do this to ease the suffering of employees who have had accidents and their families. In addition to moral reasons, there are also legal reasons for implementing work safety programs. Today there are various laws and regulations that regulate work safety and the penalties for dissident parties are determined to be quite severe. Under the laws and regulations, companies can be fined and leaders can be arrested if they are found responsible for fatal accidents. In addition to moral and legal reasons there are economic reasons, namely large losses not only experienced by employees in the event of a work accident, but the company will also experience large losses through compensation as a form of accountability (Firman, 2012).

Occupational safety and health are the main means of preventing accidents, disability and death as a result of workplace accidents. The Occupational Safety and Health Management System (OHSMS) aims to prevent, reduce, and even nullify the risk of work accidents (zero accident). The application of this concept should not be considered as an effort to prevent occupational accidents and work-related diseases which cost a lot of the company, but must be considered as a form of long-term investment that provides abundant benefits in the future (Prasetyo, 2009). Many factors influence the OHS itself, several factors that influence OHS according to Siregar (2017) include: workplace / environment, equipment, and labor.

The work environment is defined by space, physical layout, noise, tools, materials and co-worker relations and the quality of all of these has an important positive impact on the quality of work produced (Tyssen, 2011). Whereas Schultz (2010) states "Environment or Working conditions are all physical aspects of work, physiological work, and work rules that can affect job satisfaction and productivity". It is expected that the working environment in the workplace is in accordance with established guidelines and guidelines that contain the standard Threshold Value (NAB), standard tools, standard materials, safety and security standards and standard operational procedures (SOP).

The application of an occupational health and safety management system is part of the overall company management system in order to control risks related to work activities in order to create a safe, efficient and productive workplace (Hanifah, 2017). The purpose of this study was to analyze the application of occupational safety and health management systems to employee work behavior and working environment conditions at Dr. Harjono Ponorogo.

## **METHODS**

The research design was analytic observational with a quantitative approach. Research on variable i.e. application of the occupational health and safety management system (OHSMS) as the independent variable, the behavior of the working conditions and working environment as the dependent variable. This research population all employees in installations of polyclinics, inpatient care installations, medical record and pharmaceutical installation Dr. Harjono General Hospital of Ponorogo as many as 446 employees. Samples taken with the cluster random sampling technique as much as 258 respondents. Data is collected with instruments ceklist and processed in coding, editing, tabulating and scoring as well as tested with linear regression test.

**RESULTS****Subject Characteristics****Table 1.** The characteristics of respondents in this study included age, gender, education, length of work, K3 training, implementation of OHSMS, work behavior and work environment.

No	Characteristics	ΣN	Σ%
1	<b>Age (year)</b>		
	21-35	201	78
	>35	57	22
2	<b>Gender</b>		
	Man	100	39
	Female	158	61
3	<b>Education</b>		
	Senior high school	38	15
	Diploma	191	74
	Bachelor	29	11
4	<b>Length of work</b>		
	<1 year	62	24
	1-5 year	196	76
5	<b>K3 training</b>		
	Yes	146	57
	Never	112	43
6	<b>Application of OHSMS</b>		
	Less	59	23
	Enough	147	57
	Good	52	20
7	<b>Work behavior</b>		
	Less	44	17
	Enough	126	49
	Good	88	34
8	<b>Work environment</b>		
	Qualify	201	78
	Not eligible	57	22
	<b>Total</b>	<b>258</b>	<b>100</b>

**STATISTICAL TEST RESULTS****Table 2.** Linear regression analysis simultaneously or simultaneously between the application of OHSMS with work behavior and work environment in Dr. RSUD Harjono, District of Ponorogo, November 2018 (n = 258).

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	48.411	2	24.206	98.919	.000 <sup>b</sup>
	Residual	62.399	255	.245		
	Total	110.810	257			

a. Dependent Variable: application of OHSMS

b. Predictors: (Constant), work environment, work behavior

The table above explains simultaneously or together that seen in the results of the ANOVA test found that the independent variables affect both the dependent variable (work behavior and work environment) which is indicated by a significance value = 0.00 < 0.05.

## DISCUSSION

### **Application of OHSMS in Dr. Hospital Harjono, District of Ponorogo**

The results showed that, based on data from the application of OHSMS, data was obtained from the majority of respondents who had applied the occupational safety and health system (OHSMS) with a fairly good category of 147 respondents (57%).

Occupational safety and health is one aspect of labor protection through the application of technology to control all aspects that have the potential to endanger workers. Control is also shown on sources that have the potential to cause disease due to the type of work, efforts to prevent accidents matching work equipment or machinery or instruments and the characteristics of the people who carry out the work or those around him. Occupational safety and health are expected to create high work comfort and work safety (Sholihah and Kuncoro, 2014). Normatively, as contained in PP No. 50 of 2012, article 1, the Occupational Safety and Health Management System (OHSMS) is part of the overall management system of the company in order to control risks related to work activities in order to create a safe, efficient and productive.

The results of this study indicate that most employees at Dr. Harjono has implemented an occupational health and safety management system with sufficient categories. This happens because the respondents are still trying to be able to carry out the work well, but also can maintain their safety. Therefore the respondent believes that the understanding of the management of occupational safety and health that has been obtained from training, simulation exercises, outreach and provisions contained in the SOP must be applicable in every action or work carried out by the employee. In addition, the hospital management also strives to be able to maintain the safety and health of their employees so that work productivity is maintained properly by frequently monitoring, evaluating and evaluating OSH programs continuously and disseminating information to employees about implementing the occupational health and safety system. in each work environment.

### **Work behavior in Dr. Hospital Harjono, District of Ponorogo**

The results of the study show that based on the respondent's work behavior, the data obtained by the majority of respondents have shown that the work behavior in the category is good enough as many as 147 respondents (57%).

Work behavior is the response or reaction of individuals that arise either in the form of actions or attitudes or assumptions of a person towards his work, working conditions experienced in the work environment and treatment of the leadership of the employee itself (Notoatmodjo, 2012). This definition of work behavior is how people implement the plan that has been prepared, this implementation is carried out by human resources who have the ability, competence and motivation (Wibowo, 2011).

The results of this study indicate that the majority of employees at Dr. Harjono has shown quite good work behavior. The work behavior is indicated by the respondent trying to be able to complete the work given as difficult as any of the work, interest and motivation that are quite high and Employees trying to implement procedures in all actions taken and they assume that being absent from work is not an attitude of work professionalism. This happens because respondents understand enough that good work behavior will create a sense of security and comfort in work, the incidence of workplace accidents can be reduced in an effort to zero accident, and support good work productivity and employee performance will be more able to be shown and proud.

### **Work environment in Dr. Hospital Harjono, District of Ponorogo**

The results showed that based on work environment data showed that the working environment conditions according to the respondents mostly had fulfilled the requirements as many as 201 respondents (78%).

The work environment is everything that exists around the workers and that can affect themselves in carrying out the tasks assigned, such as cleanliness, music, lighting and others (Sunyoto, 2012). The work environment is the entire tooling equipment and tools faced, the surrounding environment where a person is a worker, his working method, and his work arrangements both individually and as a group (Sedarmayanti, 2012).

The results of this study indicate that the working environment in each room of Dr. Hospital Harjono has fulfilled the requirements for a good and healthy work environment including noise levels not

exceeding the maximum limit, lighting is good within normal limits, and room temperature has also met the requirements well. This indicates that hospital management wants to try to provide a comfortable and safe work environment for their employees so that employees can carry out work with a sense of security and comfort. With a safe environment also will reduce the number of work accidents, this is also in order to realize zero accident in the hospital environment.

#### **Effect of OHSMS Implementation on work behavior in Dr. RSUD Harjono, District of Ponorogo**

Based on the results of the study, the results of the Pearson correlation test between the application of OHSMS and the behavior and work environment obtained a significance value of  $0,000 < 0,05$  so that there can be a relationship between independent variables and the dependent variable. This shows that the application of OHSMS affects work behavior in Dr. Harjono, District of Ponorogo.

The Occupational Safety and Health Management System (OHSMS) based on the Republic of Indonesia Manpower Candy Year 1996 article 2, K3 Management System (OHSMS) is part of the overall management system covering the organizational structure, planning, responsibilities, implementation, procedures, processes and resources needed for the development of OSH policies in order to control risks related to work activities in order to create a safe, efficient and productive workplace involving elements of management, labor, conditions and an integrated work environment in order to prevent and reduce work-related accidents and diseases and the creation of safe, efficient and productive place.

The results of this study indicate that the application of a system of occupational safety and health (OHSMS) can influence the creation of good and positive work behavior. This happens because by ensuring the occupational safety and health of employees, employees will feel comfortable and safe in carrying out activities or activities in the workplace, so that employee motivation in work will be high and affect their work behavior better with a safety first culture.

#### **The influence of the application of OHSMS on the work environment in Dr. Harjono, District of Ponorogo**

Based on the results of the study, the results of the Pearson correlation test between the application of OHSMS and the behavior and work environment obtained a significance value of  $0,000 < 0,05$  so that there can be a relationship between independent variables and the dependent variable. This shows that the application of OHSMS affects the work environment in Dr. RSUD Harjono, District of Ponorogo.

The workplace also makes one that causes workplace accidents that can occur, the location of the work location, the cleanliness of the work location and comfort makes the worker feel the activities in his work are comfortable so as to reduce the risk of accidents. Compare that with a slum and narrow workplace that will also provide a large work risk and can result in fatality and death. The needs that must be understood by business owners in order to provide a place that is in accordance with work standards make the owner's own attention, ergonomical elements must also be made to provide beauty and comfort in work (Tumbelaka, 2013).

Occupational safety and security has a lot of impact on accident factors, employees must comply with standards (K3) so as not to make things negative for employees. The occurrence of many accidents due to illness suffered by employees without the knowledge of the supervisor (K3), should the supervision of physical conditions be applied when entering the workspace to detect the early sacred health of workers when they will start work. Occupational safety and health need to be considered in the work environment, because health is a healthy condition or situation of a person both physically and spiritually while occupational safety is a situation where workers are guaranteed safety when working both in using machinery, aircraft, work tools, processing as well as places work and environment are also guaranteed. If the workers are physically and mentally healthy and are supported by facilities and infrastructure that are guaranteed safety, work productivity will be improved.

#### **The Influence of OHSMS Implementation on work behavior and environment in Dr. RSUD Harjono, District of Ponorogo**

The results of the linear regression test show that all classical assumption tests as a condition of regression tests have been fulfilled so that the linear regression statistical test can be used as a statistical measurement in this study. The test results partially show the variables of the implementation of

OHSMS affect the behavior and work environment. This is indicated by the significance value of the variable work behavior = 0,000 and in the work environment = 0,007 so that the significance values of the two variables are  $<0,05$ . Simultaneous or joint test results seen in the results of the ANOVA test found that the independent variables affect both the dependent variable (work behavior and work environment) which is indicated by a significance value = 0.00  $<0.05$ . the value of R Square (R<sup>2</sup>) is 0.437 or 43.7% which shows the contribution of the variable implementation of OHSMS on work behavior and work environment. While the remaining 56.3% is influenced by other factors that are not in this research model. Multiple correlation coefficients are used to measure the closeness of the relationship between independent and dependent variables. The multiple correlation coefficient is indicated by the value (R) of 0.661 or 66.1% which indicates that the variable implementation of OHSMS on work behavior and work environment has a close relationship.

The results of the Johannes (2017) study show Based on this study it was concluded that the implementation of OHSMS had been running well in accordance with the applicable K3 regulations in the company and the planning and implementation followed in accordance with the existing standard operating procedures based on the ISO used in the company. UU no. 1 of 1970 concerning occupational safety in Article 13 which states that anyone who will enter a workplace is obliged to obey all work safety instructions and use of required personal protective equipment. According to Budiono (2013) explained that work safety which has a scope related to machinery, a workplace foundation and work environment, as well as ways to prevent accidents and occupational diseases, provides protection for production sources so as to increase efficiency and productivity. Occupational health is a health science specialist and its practice that aims to enable workers to obtain the highest degree of health, both physically, mentally and socially with usahapreventif or curative for diseases / health problems caused by occupational factors and the environment as well as general illnesses.

The results of this study indicate that the application of the Occupational Safety and Health management system will create the realization of a good workforce maintenance that can be seen from work behavior and work environment. The management of occupational safety and health systems will be able to name the feeling of wanting to maintain safety and health when carrying out work on each individual because they are aware of the importance of these actions for themselves and for the company. If there are many accidents, many workers suffer, the number of absences in the company increases, work productivity decreases, and even institutions can experience a decline in income. This will all cause losses to the workforce and the company concerned, because maybe the labor force is forced to stop working because of temporary illness or permanent disability caused by unsafe work processes or wrong work practices.

## CONCLUSION

1. Application of Occupational Health and Safety Management System at RSUD Dr. Harjono Ponorogo Regency obtained data that most of the respondents had implemented the occupational safety and health system (OHSMS) with a fairly good category of 147 respondents (57%).
2. Work behavior in Dr. Hospital Harjono Ponorogo Regency obtained data of the majority of respondents already showing work behavior in the fairly good category as many as 147 respondents (57%).
3. Work environment at Dr. Harjono Ponorogo Regency obtained data on the condition of the work environment according to respondents that most of the environment fulfilled the requirements as many as 201 respondents (78%).
4. The application of OHSMS affects work behavior and work environment in Dr. RSUD Harjono, Ponorogo Regency, which is indicated by the p value in the Pearson correlation test with a p value  $< 0.05$ .
5. There is an influence between the implementation of the occupational safety and health system (OHSMS) on employee work behavior and working environment conditions indicated by the test value partially and simultaneously showing a significance value = 0.00  $<0.05$ .

## SUGGESTION

The hospital K3 Committee needs to carry out more intensive supervision so that the implementation of the Occupational Safety and Health Management System (OHSMS) related to work behavior and working environment conditions can be well controlled, and can implement guidelines for implementing the Occupational Health and Safety Management System (OHSMS) with as much as possible and have a firm attitude especially in implementing the K3 policy.

Increasing employee knowledge of optimizing information about K3 with socialization, training, seminars and simulations as well as always evaluating policies in the implementation of OHS that have been running, if there are still shortcomings in implementing the Occupational Safety and Health Management System (OHSMS) immediate changes, both policies, guidelines, guidelines and standard operational procedures (SOP).

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