

Basic Accident Cause Analysis of Relations with Individual Commitment in Effort to Prevent Occupational Accidents at Rumah Sakit X

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Abstract— Hospital is one of the workplaces that have a variety of risks that could adversely affect health and safety. Data of occupational accidents in RS X is 1 accident in 2012 and 2 accidents in 2014. The accident data indicate not optimal management control in the implementation of OSH at RS X Surabaya. The purpose of this study is to analyze the relationship between the basic causes of the accident with the individual commitment efforts to prevent occupational accidents at RS X Surabaya. This research is a quantitative research with cross sectional design was conducted in October-November 2015. Large population of 180 people and a sample obtained by simple random sampling technique as many as 65 people. Results with Pearson correlation analysis there was no relationship between the length of work with individual commitment. OSH policies, infrastructure, financing, human resources of OSH, OSH training, and the provision of PPE there is a relationship with the individual commitment. Individual commitment are not related to work behavior. Results of path analysis showed that there is a relationship between infrastructure, financing, human resources of OSH, and OSH training with individual commitment. Recommendations are given for the RS X is adjusting infrastructure with attachments Kepmenkes No. 1087 In 2010, the hospital gave budgets sufficient funds for the implementation of OSH, hospitals procure new human resources special of OSH, OSH training in accordance with needs, and RS do efforts to increase individual commitment.

Keywords—individual's commitment, occupational accident, work behavior.

I. INTRODUCTION

Hospital as one of the places included in the criteria workplace is a workplace that has a variety of risks that could adversely affect the health and safety both to workers in hospitals, patients, hospital visitors, and the

community in the hospital environment so that the hospital should apply efforts OSH in hospital^[4].

WHO sets 2 million workers in hospitals exposed to the hepatitis B virus, hepatitis C virus by 0.9 million workers, HIV / AIDS 170,000 workers, and 8-12% of workers are sensitive to latex (the material commonly used for gloves). Other cases recorded every year in the USA there are 5,000 health workers infected with Hepatitis B. A total of 600 thousand to one million needlestick injuries because of reported per year, while the forecast for cases that are not reported to be around 60%^[2].

The research of Parubak, dkk^[6] at the two hospital workers in Tana Toraja, the result that workers who have had work accidents amounted to 40.5%. Officers in both the hospital there who experienced more than one type of work accidents thus expanding the number of accidents that occur. Officer injured at work tends to be a medical officer working unit with the highest accident in the hospitalization because of his work varied and more risky and varied working hours (the division of work shift).

In 2007, the Ministry of Health issued guidelines for management of occupational safety and health (OSH) at work in the hospital in the form of Health Ministerial Decree No. 432 of 2007. The hospital as a workplace must also implement a management system of occupational safety and health management system that is integrated with the company in accordance with the guidelines that have been issued. This is reinforced by the inclusion of OSH component in the assessment of hospital accreditation since 2012.

Rumah Sakit X is one hospital in Surabaya in conducting public health services, especially surgery. Status of Rumah Sakit X Surabaya is a special hospital for surgical grade B. Many things need to be done to build this hospital became the best hospitals, one of which is related to the presence of OSH in the organizational structure of the hospital.

Based on preliminary studies obtained information that the organization or unit of OSH in the hospital was first formed under the name Patient Safety Team,

Occupational Safety and Health Hospital in RS X, established in October 2014 but its existence did not last long because they do not focus on activities OSH but also take care of other things that patient safety. In February 2015, management re-establishing the OSH organization replace the old unit and replace all members in it and changing its name to the Occupational Safety and Health Committee of the Hospital. Existence just in the organizational structure of RS X should receive full support by management, including that related to management commitment in the implementation of Occupational Safety and Health of the Hospital.

A number of occupational accidents still occur in RS X. Before Occupational Safety and Health Committee of the Hospital, in 2012 there were an accident on labor hygiene needle stick while working. This incident was not recorded because at that time there were only Patient Safety team. Accident data in RS X of reported during the year 2014 as many as two people. Both are employees of engineering unit in the hospital. One worker had an accident while doing work additional cable installation on the 1st floor at a height of 3 meters, the worker fell from the ceiling. One other workers fell in the trenches that had been closed but not firmly hold the trench cover workers when walking on the access road gas central space.

Not found any other data related to work accidents, especially in the health personnel working in RS X Surabaya. Based on the results of interviews with the Occupational Safety and Health Committee of the Hospital, this can occur due to the lack of awareness of workers to report accidents that happened to the Occupational Safety and Health Committee of the Hospital. According to the secretary of Occupational Safety and Health Committee of the Hospital, work accidents on the health workers most likely there but the workers do not report it because they do not consider it important to report the incident to the Occupational Safety and Health Committee of the Hospital work accidents. It can also be caused by socialization Occupational Safety and Health of the Hospital in RS X has not been evenly distributed throughout the unit. The low number of cases related to the relatively low labor does not describe the real state, but rather on undetected and undiagnosed.

The existence of the above accident data and indications are showing that it is still not optimal in terms of management control is management's commitment to practical use in the implementation of OSH at RS X Surabaya. All the causes of workplace accidents could not be separated from the function of the implementation of OSH on every unit. The need for the implementation of Occupational Safety and Health of the Hospital which is supported by all parties to be done. Application of OSH

in the hospital is a shared responsibility between management, workers and the government, but the most interested and take full responsibility is the management of the hospital. Therefore, it is taken research on "Basic Accident Cause Analysis of Relations with Individual Commitment in Effort to Prevent Accidents in RS X".

II. METHODS

This study has a quantitative research approach. Based on the aspects of data collection, this study is an observational research because the study only observed without treatment. square of this study is cross-sectional study because the data collected in the period, while carrying out research in the field. This research was conducted at the Hospital Surgery Surabaya, East Java. The study was conducted over 2 months from October to November 2015. The population in this study were all workers in RS X Surabaya either medical staff, paramedical staff nurses, paramedics non nurses and non-medical personnel with a number of 180 people. Sampling technique using simple random sampling to get the results of calculations as many as 65 people. The following calculations:

$$n = \frac{Npq}{(N-1)D + pq}$$

$$n = \frac{180 \cdot 0,5 \cdot 0,5}{(180 - 1) \cdot 0,0025 + 0,5 \cdot 0,5}$$

$$n = 64,52 \approx 65$$

Keterangan:

N : total population, all workers of all units in RS X

p : proportion (0,5)

q : 1- p

D = B²/4, B = bound the error = 0,1

Variables examined in this study are the variables that influence (exogenous variables) and variables that influenced (endogenous variable). Exogenous variables include individual factors consist of length of work; lack of control that consists of OSH management commitment which include policy, infrastructure, funding and human resources of OSH; OSH training; and the provision of PPE. Endogenous variables consist of the human factor includes individual commitment and knowledge; and work behavior.

III. RESULT

Relationship Between Length of Work with Individual Commitment

Table 1.1 Relationship Between Length of Work with Individual Commitment

	Individual Commitment		Conclusion
	Correlation coefficient	Sig (2-tailed)	
Length of Work	-0,087	0,492	Not significant

Results of Table 1.1 shows that there is no correlation between the length of work with individual commitments ($p \geq \alpha$). The correlation coefficient between the length of work with individual commitments amounting to -0.087.

Relationship Between OSH Policy with Individual Commitment

Table 1.2 Relationship Between OSH Policy with Individual Commitment

	Individual Commitment		Conclusion
	Correlation coefficient	Sig (2-tailed)	
OSH Policy	0,336	0,006	Significant

Table 1.2 shows a p -value $\leq \alpha$ so that there is a relationship between OSH policy with individual commitment. The correlation coefficient between OSH policy with individual commitments amounting to 0.336.

Relationship Between Infrastructure with Individual Commitment

Table 1.3 Relationship Between Infrastructure with Individual Commitment

	Individual Commitment		Conclusion
	Correlation coefficient	Sig (2-tailed)	
Infrastructure	0,273	0,028	Significant

Table 1.3 shows the correlation between infrastructure with individual commitments ($p \geq \alpha$). The correlation coefficient between the infrastructure with individual commitments amounting to 0.273.

Relationship Between Funding with Individual Commitment

Table 1.4 Relationship Between Funding with Individual Commitment

	Individual Commitment		Conclusion
	Correlation coefficient	Sig (2-tailed)	
Funding	0,497	0,000	Significant

Table 1.4 shows there is a relationship between funding and individual commitment. The correlation coefficient between funding and individual commitments amounting to 0.497.

Relationship Between Human Resources of OSH with Individual Commitment

Table 1.5 Relationship Between Human Resources of OSH with Individual Commitment

	Individual Commitment		Conclusion
	Correlation coefficient	Sig (2-tailed)	
HR of OSH	0,357	0,003	Significant

Table 1.5 shows there is a relationship between human resources of OSH with individual commitment ($p < \alpha$). The correlation coefficient between the HR of OSH with individual commitments amounting to 0.357.

Relationship Between OSH Training with Individual Commitment

Table 1.6 Relationship Between OSH Training with Individual Commitment

	Individual Commitment		Conclusion
	Correlation coefficient	Sig (2-tailed)	
OSH Training	0,414	0,001	Significant

Table 1.6 shows the correlation between OSH training with individual commitment ($p < \alpha$). The correlation coefficient between OSH training with individual commitments amounting to 0.414.

Relationship Between Provision of PPE with Individual Commitment

Table 1.7 Relationship Between Provision of PPE with Individual Commitment

	Individual Commitment		Conclusion
	Correlation coefficient	Sig (2-tailed)	
Provision of PPE	0,317	0,010	Significant

Table 1.7 shows the relationship between the provision of PPE with the individual commitment. The correlation coefficient between the provision of PPE with individual commitments amounting to 0.317.

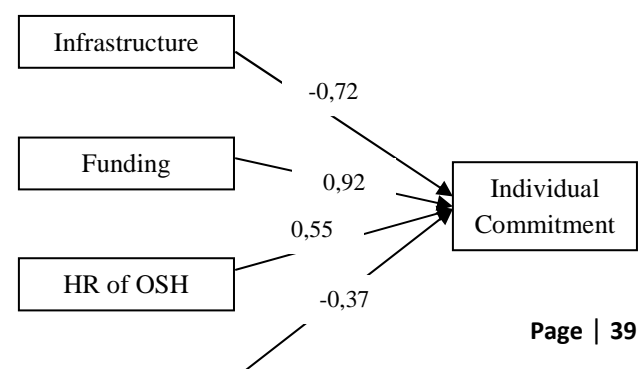
Relationship Between Individual Commitment with Work Behavior

Table 1.8 Relationship Between Individual Commitment with Work Behavior

	Work Behavior		Conclusion
	Correlation coefficient	Sig (2-tailed)	
Individual Commitment	0,069	0,588	Not significant

Table 1.8 shows the value of $p \geq \alpha$, which means there is no relationship between an individual's commitment to workplace behavior. The correlation coefficient between the individual's commitment to the work behavior of 0.069.

Results of path analysis produce models I to X models that meet the assumption of path analysis and all variables are statistically significant. XI the following models:



OSH Training

Fig. 1.1: Significant on Path Analysis Model

Based on Figure 1.1, note that:

1. Relationship between infrastructure with individual commitment
Direct effect = -0,72. Indirect effect = 0
Total effect = Direct effect + Indirect effect = -0,72
2. Relationship between funding with individual commitment
Direct effect = 0,92. Indirect effect = 0
Total effect = Direct effect + Indirect effect = 0,92
3. Relationship between human resources of OSH with individual commitment
Direct effect = 0,55. Indirect effect = 0
Total effect = Direct effect + Indirect effect = 0,55
4. Relationship between OSH training with individual commitment
Direct effect = -0,37. Indirect effect = 0
Total effect = Direct effect + Indirect effect = -0,37

According to the p-value (1.00) then the model XI is a model that significant and can be generalized to the population, the model does not only apply to the sample in this study, but also applies in all workers in Rumah Sakit X Surabaya.

IV. DISCUSSION

Relationship Between Length of Work with Individual Commitment at Rumah Sakit X

The data generated in this study through the analysis of the relationship as well as the path that is no longer working with the relationship between individual commitment. One indicator of individuals who have a continuance commitment is the individual will not feel any adverse effects if left the organization in the near future^[1]. This indicates that either a new or a worker who has been working, can leave the organization in the near future.

Relationship Between OSH Policy with Individual Commitment at Rumah Sakit X

Path analysis says there is no connection between the OSH policy with individual commitment, but analysis of the relationship resulted in that there is a relationship between OSH policy with individual commitment. The better the OSH policy, the better the individual commitment owned workers, and vice versa.

OSH policy is an important requirement OSH management system implementation in the organization. OSH policy is a clear form of management commitment to OSH are set forth in a written statement^[7]. If the OSH

policies in hospitals is good, then it OSH in the organization would also be good to guarantee the safety and health of workers at work. This comfortable feeling may increase the commitment of individual workers.

Relationship Between Infrastructure with Individual Commitment at Rumah Sakit X

Results of the analysis of the relationship as well as lane express the relationship between infrastructure with individual commitment. The better the infrastructure facilities provided at the hospital associated with the level of commitment of individual workers.

Members with high normative commitment will continue to be members in the organization because he felt he had to remain in the organization^[10]. Respondents felt that he should remain in the organization so committed individuals who are already good despite the respondents' assessment of the infrastructure is still lacking.

Relationship Between Funding with Individual Commitment at Rumah Sakit X

Both the analysis of data processing relationships as well as generating pathway that there is a relationship between funding and individual commitment. The better funding in hospital associated with the growing commitment of individual workers.

One dimension is the commitment continuance commitment that can develop due to a variety of events which may increase losses if it leaves the organization. Some of these events, namely investment, alternatives, and individual consideration. Eg investment of time, effort, or money to be released by individual leaving the organization. Alternative namely the possibility of individuals to enter into other organizations. The process of consideration is when the individual reaches awareness and alternative investments, and the impact on them^[10]. Assessment of respondents related to the financing can be seen from the amount of the budget related to the delivery of OSH are generally known by the workers. If the respondent has considered that the relevant funding of OSH has been good, the greater the investment must be released by the respondent. Substantial funds ensure that the OSH will run better than on a small budget. Comfort at work and investment can increase individual commitment.

Relationship Between Human Resources of OSH with Individual Commitment at Rumah Sakit X

There is a relationship between human resources of OSH with good individual commitments derived from the processing of data analysis and pathway relationship. The better the human resources of OSH related to the better individual commitment.

Individual commitments relating to the relationship between the members, the organization and the activities within it^[10]. The existence of human resources of OSH at

hospital related to individual commitments because of the role of individuals within the organization affects the formation of affective commitment. Individual commitments relating to the relationship between the members, the organization and the activities within it, including the relationship between workers each unit with HR of OSH. The respondents' assessment of the human resources of OSH that are already good can increase individual commitment. The involvement of members of the hospital in the activities of OSH also make workers can increase individual commitment.

Relationship Between OSH Training with Individual Commitment at Rumah Sakit X

All respondents with less of OSH training category with considerable individual commitment. Results of analysis of the relationship and the line stating that there is a relationship between the OSH training with individual commitment.

OSH training is valuable because each individual requires training to carry out their work in order to achieve certain goals^[3]. OSH training which is rarely done by hospitals but produces individual commitments that have been good. Individuals rate according to the felt and seen so far, although the majority of respondents are not directly involved in the training of OSH that has been done at Rumah Sakit X.

Relationship Between Provision of PPE with Individual Commitment at Rumah Sakit X

Results of the analysis of the relationship express the relationship between the provision of PPE with the commitment of the individual, but the path analysis revealed no relationship between the provision of PPE with the individual commitment.

Members of the organization with high normative commitment will continue to be members in the organization because he felt he should remain in the organization^[10]. Respondents considered that although the hospital to provide PPE less but does not affect the size of individual commitments for reasons of individuals survive in the organization is under an obligation to keep him in the organization, not because the provision of PPE.

Relationship Between Individual Commitment with Work Behavior at Rumah Sakit X

In the analysis of the relationship and the path, there is no relationship between an individual's commitment to work so that the better the behavior of individual commitment not related to safe or unsafe behaviors that work done.

Members of the hospital that has a dimension of individual commitment of high affective commitment will continue to be a member of the organization since members have the desire for it^[10]. It makes them to do the best for the hospital as it works according to the SPO and the use of PPE when working so the work safely. This is

different from the individual who has the dimension of individual commitment continuance commitment is high, people will be passive or let alone state that is not going well^[10]. Workers who have committed individual with such dimensions, can allow only the behavior of unsafe working well it is doing himself or performed by others in the vicinity. This shows that the better the individual commitment which is owned by the respondent, work behavior owned not become more secure or insecure since the two are not interconnected.

V. CONCLUSION AND SUGGESTION

Conclusion in this study can be concluded the following:

1. There is a significant relationship between the length of work with individual commitment.
2. There is no relationship between OSH policy with individual commitment.
3. There is a relationship between infrastructure with individual commitment. High individual commitment which has been owned by the respondent despite the respondents' assessment of the infrastructure is still lacking.
4. There is a relationship between funding and individual commitment. The better funding at the hospital associated with the better individual commitment.
5. There is a relationship between human resources of OSH with individual commitment. The better the human resources of OSH associated with the better individual commitment.
6. There is a relationship between the OSH training with individual commitment. OSH training sufficient can produce good individual commitment.
7. There is no connection between the provision of PPE with the individual commitment.
8. There is no significant relationship between individual commitment to workplace behavior.
9. The model fit the resulting path analysis is the relationship of infrastructure, funding, human resources of OSH, and OSH training with individual commitment.

Recommendation given to the hospitals and the respondents are:

1. Facilities and infrastructure in the hospital should be in accordance with Attachment Decree of the Minister of Health of the Republic of Indonesia Number 1087 Year 2010 on Health and Safety in the Hospital.
2. The hospital is expected to provide a budget sufficient funds for the OSH implementation of the minimum can be used for organizing Occupational Safety and Health Committee of the Hospital, OSH

- training and provision of OSH infrastructure facilities.
3. Hospitals procure new power special care of human existence of OSH because the Occupational Safety and Health of the Hospital has been set in Decree of the Minister of Health of the Republic of Indonesia Number 1087 Year 2010.
 4. Understanding and culture regarding safety while working at the hospital should be established through training and coaching. Hospitals should conduct an analysis of OSH training needs for workers according to the nature of the hazard, the scale of activities and working conditions.
 5. The commitment of individuals in hospitals should be improved in various ways such as giving credence to the members to work with challenging new task; reward when doing a good job; knowledge increased significantly through training, refresher, and regular meetings; and a clear career path for each employee in the hospital.

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