



Analysis of Factors Affecting The Implementation of SMK3 (Occupational Safety and Health Management System) Hospitals in Banda Aceh City

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ABSTRACT

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WHO states that hospitals that do not effectively implement an Occupational Safety and Health Management System (OSHMS) tend to have higher rates of occupational accidents. A study conducted in several hospitals in Indonesia showed that hospitals without adequate implementation of SMK3 experienced an increase in occupational accidents by 50-60% compared to hospitals that have implemented SMK3 properly. This research aims to determine the analysis of factors that influence the implementation of the Occupational Health and Safety Management System in Type B Hospitals in Banda Aceh City. This research is an Observational analytic research with a quantitative approach using a cross-sectional design. The sample in this study amounted to 356 people from all the workers recorded as health workers in two Type B Hospitals in Banda Aceh City. Data analysis was carried out in two stages: namely univariate and multivariate with the help of SmartPLS. The results showed that there was an influence of the implementation of OHS policies ($t=2.628$; $p=0.009$), OHS planning ($t=4.418$; $p=0.000$), OHS planning implementation ($t=3.706$; $p=0.000$), OHS review and improvement ($t=4.054$; $p=0.000$), and the implementation of Occupational Health and Safety (OHS) policies ($t=2.430$; $p=0.000$) on the implementation of OHSMS in hospitals. There is an influence of the implementation of OHS policies on OHS planning ($t=22.430$; $p=0.000$). There is an influence of OHS planning on OHS planning implementation ($t=156.313$; $p=0.000$). There is an influence of OHS implementation on OHS monitoring and evaluation ($t=25.945$; $p=0.000$). There is an influence of OHS performance monitoring and evaluation on OHS review and improvement ($t=4.414$; $p=0.000$). There is no relationship between OHS performance monitoring and evaluation and the implementation of OHS ($t=1.427$; $p=0.154$). In conclusion, The implementation of OHS policies, OHS planning, and OHS planning implementation are related to the implementation of OHS in hospitals, but OHS performance monitoring and evaluation are not related to the implementation of OHS in hospitals.

KEYWORDS:

OHS policy implementation, OHS planning, OHS planning implementation, OHS performance monitoring and evaluation, OHS implementation in hospitals, Hospitals

INTRODUCTION

The World Health Organization (WHO) recorded 35 million health workers of which 3 million were exposed to blood pathogens (2 million exposed to Hepatitis B virus, 900,000 exposed to HBC virus and 170,000 exposed to HIV/AIDS) the chance of HIV transmission after being pricked by a needle used by a Hepatitis B patient is 4:1000 (Ibrahim et al., 2017). In Indonesia, data on Occupational Diseases and

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Occupational Accidents (OCI) in health services in general have not been well documented Poetra, (2023), according to Matondang, (2022) the risk of hazards experienced by workers in hospitals is HIV infection (0.3%), risk of mucous membrane exposure (1%), risk of skin exposure (<1%). Riskesdas data in 2018, for cases of work accidents that occurred in public places such as hospitals nationally amounted to 9.2% (Balitbangkes, 2018). Regarding the OHS management system, there are a number of factors that cause the lack of implementation of the OHS management system in companies which are classified into 5 categories, namely (1) the factor of fulfilling laws and regulations, (2) the factor of OHS policy commitment, (3) human and environmental factors, (4) budget or financial factors and (5) the factor of support from the government (Kurnia, 2020).

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Based on data from PT Jamsostek BPJS Employment Banda Aceh Branch there were 1002 cases in the period January 1, 2018 to August 31, 2022 reported with details of 704 cases of minor work accidents, 298 cases of serious accidents and 30 cases of death. In Banda Aceh City itself there are 15 hospitals in the working area of the Banda Aceh City Health Office which consist of various classes, namely 2 class A hospitals, 3 class B hospitals, 5 class C hospitals, 2 class D hospitals and 2 hospitals with class status not yet determined (BPJS, 2022).

Based on the results of the researchers' initial survey interviews in September, Type B Hospitals in the city of Banda Aceh claimed that the implementation of SMK3 was in accordance with Permenkes No. 66 of 2016 concerning Hospital SMK3. It is known that one of the hospitals that will be used as a sample does not have a record of incident reports regarding occupational accident and disease data. Based on Permenkes (2016) that the ACC and PAK data report is one of the important points in compiling risk management and hospital OHS investigations.

Researchers also found several situations when visiting type B hospitals in Banda Aceh City such as the absence of signs or markers in rooms where construction activities were being carried out, and in other locations there were also buildings that did not meet K3 requirements but were still occupied by officers. From the description above, it is necessary to implement an occupational health and safety management

system to reduce accidents and occupational diseases, reduce costs by reducing accidents and damage so as to reduce loss costs, create an effective management system, increase customer/patient trust and satisfaction at the Banda Aceh City Hospital. This is interesting for researchers to conduct research and explore the Factors Affecting the Implementation of SMK3 in Type B Hospitals in Banda Aceh City.

METHOD

This study is an observational analytic research study with a quantitative approach that uses a cross sectional design (Wang & Cheng, 2020). The study sample consisted of 356 health workers who worked at Type B Hospitals in Banda Aceh City and met the predetermined criteria. The sampling method used was purposive sampling (Sugiyono, 2019). Researchers conducted interviews and distributed google forms to obtain clear information and data from respondents. The data that has been processed is then tested univariately and multivariately using Smart PLS Version 3.0 (Muhson, 2022).

RESULTS AND DISCUSSION

Respondent Characteristics

The characteristics of respondents in this study were measured based on age and education. Data regarding the characteristics of respondents can be seen in table 1 below:

Table 1. Distribution Based on Characteristics

Age Group	Frequency	%
20-35	135	37,9
36-50	157	44,1
51-57	64	18,0
Education	Frequency	%
High School	110	30,9
DIII	133	37,4
S1	108	30,3
S2	5	1,4

The majority of respondents were between 36-50 years old, accounting for 44.1% of the total, followed by the 20-35 age group with 37.9%. The 51-57 years age group made up the minority with 18.0%. In terms of education level, the

majority of respondents had a DIII degree (37.4%), followed by those with high school degrees (30.9%) and S1 degrees (30.3%). Respondents with a master's degree only accounted for 1.4% of the total.

Table 2. Univariate Analysis Results

Variables	Category	Total	
		f	%
Implementation of SMK3 policy	Meets Criteria	213	59,8
	Does not meet the criteria	143	40,2
SMK3 Planning	Meets Criteria	198	55,6
	Does not meet the criteria	158	44,4
Implementation of SMK3 Planning	Meets Criteria	205	57,6
	Does not meet the criteria	151	42,4

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Monitoring and Evaluation of SMK3 Performance	Meets Criteria	277	77,8
	Does not meet the criteria	79	22,2
Review and Improvement of SMK3 Performance	Meets Criteria	201	56,5
	Does not meet the criteria	155	43,5
Implementation of SMK3RS	Meets Criteria	222	62,4
	Does not meet the criteria	134	37,6

In general, most hospitals (more than 55%) have met the criteria in various aspects of implementing the Occupational Safety and Health Management System (SMK3), such as policy implementation, planning, implementation, monitoring and evaluation, and implementation of SMK3RS. However, there are still 22-44% of hospitals that have not met

the criteria in several aspects, especially in planning, implementation of planning, and review and improvement of SMK3 performance. The aspect with the highest level of criteria fulfillment is monitoring and evaluation of SMK3 performance, where 77.8% of hospitals have met the criteria.

3. MULTIVARIATE ANALYSIS

Table 3. Hypothesis Test

	Original Sample (O)	Sample Mean (M)	Deviation (STDEV)	T Statistic ((O/STDEV))	P Value
Implementation of SMK3 planning → implementation of SMK3RS	0,876	0,834	0,236	3,706	0,000
Monitoring and Evaluation of SMK3 Performance → implementation of SMK3RS	0,160	0,163	0,112	1,427	0,154
Implementation of SMK3 policy → implementation of SMK3RS	0,210	0,212	0,080	2,628	0,009
Review and Improvement of SMK3 Performance → implementation of SMK3RS	1,015	0,985	0,250	4,054	0,000
SMK3 Planning → implementation of SMK3RS	0,807	0,801	0,183	4,418	0,000

Source: Data processing with SmartPLS, (2024)

Table 3 illustrates that the implementation of SMK3 planning has a strong and significant influence on the implementation of SMK3RS, with a value of $t = 3.706$ and $p = 0.000$. This indicates that the implementation of SMK3 planning has an important role in the successful implementation of SMK3RS. On the other hand, monitoring and evaluation of SMK3 performance does not show a significant influence on SMK3RS implementation, with a value of $t=1.427$ and $p=0.154$. This means that monitoring and evaluation of SMK3 performance does not have a major impact on SMK3RS implementation. Furthermore, the implementation

of SMK3 policy shows a significant influence on the implementation of SMK3RS, with a value of $t=2.628$ and $p=0.009$. This indicates that a well-implemented SMK3 policy can support the successful implementation of SMK3RS. Finally, SMK3 performance review and improvement and SMK3 planning show a highly significant influence on SMK3RS implementation, with t -values of 4.054 and 4.418 respectively, and a p -value of 0.000. This means that these two factors have an important and dominant role in the implementation of SMK3RS. The following is an image of the inner model of this research.

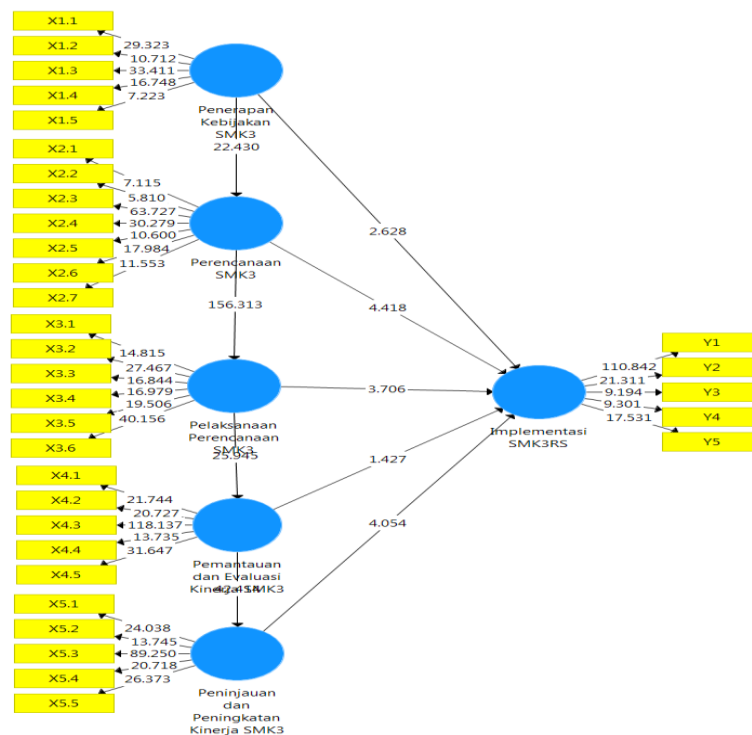


Figure. Inner Model

4. DISCUSSION

a. Effect of SMK3 Policy Implementation on SMK3RS Implementation

The study found that the implementation of SMK3 policy has a positive effect on the implementation of SMK3RS in hospitals. This suggests that hospitals with clear and structured SMK3 policies tend to be more successful in implementing occupational safety and health management systems. A good SMK3 policy includes setting occupational safety and health standards, allocating adequate resources, and support from top management. Mustafa & Putra, (2021) stated that the implementation of an effective SMK3 policy includes various steps, such as making clear and detailed occupational safety and health policies, implementing procedures in accordance with these policies, and enforcing rules and regulations related to occupational safety and health.

b. Effect of SMK3 Planning on SMK3RS Implementation

The research shows that SMK3 planning has a positive effect on the implementation of SMK3RS in hospitals. This means that hospitals that have well-thought-out and structured SMK3 planning tend to be more successful in implementing occupational safety and health management systems. Good SMK3 planning allows hospitals to identify potential risks, set clear occupational safety and health performance goals and targets, and develop strategies to achieve these goals. Kurniawan, (2022) mentioned that effective implementation of SMK3 policies can also help reduce the risk of occupational accidents and injuries, which in turn can reduce costs associated with insurance claims, treatment, and compensation. Ajib, (2016) mentioned that effective SMK3

planning also allows hospitals to allocate resources efficiently to support the implementation of SMK3RS.

c. Effect of SMK3 Planning Implementation on SMK3RS Implementation

The research shows that the implementation of SMK3 planning has a positive effect on the implementation of SMK3RS in hospitals. This means that hospitals that consistently and appropriately implement SMK3 planning tend to be more successful in implementing occupational safety and health management systems. Ramadhani, (2022) states that the implementation of good SMK3 planning ensures that the steps planned in SMK3 planning are carried out effectively and efficiently.

d. The Effect of Monitoring and Evaluation of SMK3 Performance on SMK3RS Implementation

The study did not find a significant relationship between monitoring and evaluation of SMK3 performance and implementation of SMK3RS in hospitals. This suggests that monitoring and evaluation of SMK3 performance may not always be in line with concrete efforts to implement occupational safety and health management systems in hospitals. The complexity of SMK3RS with its various elements (technical, administrative, and social) may not be thoroughly covered in the monitoring and evaluation of SMK3 performance. This can lead to gaps between what is monitored and evaluated and what is implemented (Mustafa & Putra, 2021).

e. Effect of SMK3 Review and Improvement on SMK3RS Implementation

The research shows that the review and improvement of SMK3 has a positive effect on the implementation of

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SMK3RS in hospitals. This means that hospitals that regularly conduct SMK3 review and improvement tend to be more successful in implementing occupational safety and health management systems. Jeli et al., (2021) mentioned that the review and improvement of SMK3 allows hospitals to identify shortcomings and weaknesses in the SMK3 system and make necessary improvements.

f. Effect of SMK3 Policy Implementation on SMK3 Planning

The research shows that the implementation of SMK3 policy has a positive effect on SMK3 planning in hospitals. This means that hospitals that have a clear and structured SMK3 policy tend to have better SMK3 planning. A good SMK3 policy provides guidance for the SMK3 planning process and ensures that the planning is aligned with the organization's occupational safety and health goals and objectives. Regular evaluation of the established plan, the organization can identify deficiencies or discrepancies, and take the necessary corrective actions to improve the effectiveness of SMK3 implementation (Kurnia, 2020).

g. The Effect of SMK3 Planning on the Implementation of SMK3 Planning

This study found that SMK3 planning has a positive influence on the implementation of SMK3 planning in hospitals. This means that hospitals that have a mature and structured SMK3 planning tend to be more successful in implementing SMK3 planning in the field. Toding et al., (2016) mentioned that effective planning also allows organizations to deal with changes in the work environment and regulations more responsively. Good SMK3 planning provides clear direction and objectives for every step in the effort to improve occupational safety and health in hospitals. By formulating a detailed plan, hospitals can identify potential risks, establish appropriate prevention strategies, and determine the allocation of resources needed to support the implementation of occupational safety and health programs.

h. Effect of SMK3 Planning Implementation on Monitoring and Evaluation of SMK3 Performance

The research shows that the implementation of effective SMK3 planning has a significant influence on the monitoring and evaluation of SMK3 performance. SMK3 performance evaluation is an important component in ensuring the effectiveness of the occupational safety and health management system. By conducting regular monitoring and evaluation, organizations can identify and address potential hazards, improve worker safety and health, and achieve overall OHS objectives.

i. The influence of Monitoring and Evaluation of SMK3 Performance on Reviewing and improving SMK3 performance

This study shows that the monitoring and evaluation of SMK3 performance has a significant influence on the review and improvement of SMK3 performance. This means that hospitals that regularly monitor and evaluate their SMK3

performance tend to be more successful in improving overall SMK3 performance. This study makes an important contribution in understanding the importance of monitoring and evaluating SMK3 performance in improving the effectiveness of occupational safety and health management systems. The findings of this study can help hospitals to develop and implement effective SMK3 performance monitoring and evaluation systems to achieve optimal occupational safety and health goals.

CONCLUSION

Overall, this study shows that various factors, including SMK3 policy, SMK3 planning, SMK3 planning implementation, SMK3 review and improvement, and the relationship between SMK3 elements, have a significant influence on the implementation of SMK3RS in hospitals. Effective implementation of SMK3RS in hospitals requires attention to all these factors and the development of an integrated and comprehensive management system.

RECOMMENDATION

Based on the results of the study, hospital management is advised to maintain and improve the quality of Occupational Safety and Health Management System (SMK3) planning because SMK3 planning factors are proven to significantly affect SMK3 implementation. One important recommendation is for Hospital management to prioritize the development of more comprehensive and structured SMK3 planning, such as conducting regular audits and evaluations of occupational safety procedures and policies. This is to identify weaknesses, new risks, or regulatory changes that require corrective action. In addition, this study also suggests that Hospital management carry out a careful and scheduled monitoring and evaluation process of SMK3, and utilize the evaluation results to identify areas of improvement and make necessary adjustments in SMK3 implementation.

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