



THE IMPLEMENTATION OF OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM (SMK3) ON NURSES' PERFORMANCE IN THE OPERATING ROOM SIDOWARAS HOSPITAL

Arif Hidayat, Sulis Diana

STIKES Majapahit Mojokerto

Corresponding Email: diana.sulis6@gmail.com

ABSTRACT	Keywords
<p>K3 maintains the safety of nurses in every health service facility to carry out their performance and maintain the safety of recipients or users of health services. To determine the effect of the implementation of SMK3 on the performance of nurses in the operating room of Sidowaras Hospital, Mojokerto Regency.</p> <p>This study uses a quantitative method, analytical observational research design with a cross-sectional approach.. Population this study, all employees of the Sidowaras Hospital operating room, totaling 45 nurses, sample of 35 respondents was obtained. Questionnaire data collection technique. Using the Chi-Square Test and Logistic Regression Test.</p> <p>0.005 < 0.05 means that there is an influence between occupational health and performance. And 0.031 < 0.05 means that there is an influence between occupational safety and performance. Occupational safety has a sig wald value of 0.955 > 0.05 which means that occupational safety does not provide a significant partial influence on performance. Occupational health has a sig Wald value of 0.031 > 0.05 which means that occupational health does not provide a significant partial influence on performance.</p> <p>They need to provide facilities and infrastructure for occupational safety in each work unit, especially operating rooms, to reduce the risk of work accidents.</p>	<p>Occupational Health, Occupational Safety, Nurse Performance</p>

INTRODUCTION

Health workers have the largest human resources (nursing) which play an important role in the success of a health service facility such as a hospital (Abdullah & Spickett, 2019), this is intended to create

professional nursing health workers and contribute optimally in efforts to achieve the goals of health service facilities. Operational activities of occupational health and safety (K3) in nursing professionals are vital activities in health service facilities

(hospitals) through an occupational health and safety management system (Ajubra, Sakka & Harun, 2019). K3 maintains the safety of nurses in every health service facility to carry out its performance and maintain the safety of recipients or users of health services (patients and families) and maintains the safety of health service equipment used by nurses to remain efficient. (Arikhman, 2020).

Researchers (Hasana, 2017) show that K3 is a moral responsibility to protect the safety of fellow human beings, both health service providers (nurses) and patients as recipients of health services. Researchers (Ivana, Widjasena and Jayanti, 2017). Explain that the safety and protection factors at work are one of the safety and protection factors at work that influence nurse performance. Research (Wati, Ramon, Husin & Elianto, 2018) shows that when a nurse has a sense of security and comfort at work, the nurse will perform optimally while (Damanik, 2018) explains that nurse performance plays an important role for an organization, because the low performance of nurses in an organization results in obstacles to achieving organizational goals because nurses are the largest workforce. Research (Elphiana, Yuliansyah and Kosasih, 2017). shows that nurse performance has a vital interest in health facilities, so it requires SMK3 to maintain these vital interests.

Sidowaras Hospital Mojokerto still found that there were work accidents, even though they were in the minor accident category, one of which was caused by nurse negligence and inadequate equipment. Hospitals should provide supporting facilities for nurses such as the availability of work equipment according to work safety standards. The following is data on the number of work accidents that occurred at Sidowaras Hospital in 2021, namely light accidents, 11 serious accidents, 6 or an

accident rate of 40.47%. In 2022, there will be 19 light work accidents and 7 serious work accidents or an accident rate of 61.90%. In 2023, there will be 18 minor accidents and 5 serious accidents. The accident rate is 54/76%. Accidents that occur at Sidowaras Hospital range from serious (scratched by an operating knife, pricked by a needle, contact with patient fluids in the eye) to mild cases (slipping, getting hit). glass doors, sprains/sprains). Work accidents generally occur because nurses do not use the protective equipment provided properly and correctly. The number of accidents that still occur in the operating room at Sidowaras Hospital causes the assessment of nurses' performance to decrease or be less than optimal in the field of nursing services at Sidowaras Hospital.

From the research results obtained variables of occupational health and safety management system SMK3 affect the performance of nurses in the operating room of Sidowaras Hospital, the results of this study are in line with the research hypothesis which states that the occupational health and safety management system SMK3 affects the performance of nurses in the operating room of Sidowaras Hospital. From several theories put forward above, it is clear that the occupational health and safety management system SMK3 affects the performance of nurses in the operating room because comfortable, safe working conditions and the guarantee of occupational safety and health will create healthy, safe and productive nurses so that they have good performance.

METHOD

The design used in this study is observational Analytical is a study that examines the relationship between two or more variables and researchers only need to observe without intervening in the research

subjects. The approach used is Cross Sectional. This study was conducted in the operating room of Sidowaras Hospital in February-May 2024. The population in this study were all employees of the operating room of Sidowaras Hospital, totaling 45 nurses. The minimum sample was 31 respondents with the Simple Random Sampling technique. The independent variables in this study are occupational health and safety while the dependent variable is nurse performance. Research instruments are tools chosen and used by researchers in their activities to collect data in this research. The research instrument is a questionnaire. Data processing and data analysis are carried out by computer using SPSS (Statistical Program and Service Solution). Data collection in this study is primary data, primary data sources, namely age, gender, education, length of service for operating room nurses at Sidowaras Hospital. The independent variable uses an occupational safety and occupational health questionnaire for the dependent variable using a nurse performance questionnaire. The analysis used a f test, chi square..

RESULTS

Table 1. Frequency Distribution of Respondents Based on Age of Nurses in the Operating Room of Sidowaras Hospital.

No.	Age	Frequency (f)	Percentage (%)
1.	20 – 35 years	20	57.1
2.	36 – 40 years	10	28.5
3.	41 – 56 years	5	14.2
	Amount	35	100

Based on table 1, it is known that more than half of the respondents are aged 20-35 years, namely 20 respondents (57.1%).

Table 2. Frequency Distribution of Respondents Based on Gender Nurses in the Operating Room of Sidowaras Hospital.

No.	Gender	Frequency (f)	Percentage (%)
1.	Man	10	28.6
2.	Woman	25	71.4
	Amount	35	100

Based on table 2, it is known that the majority of respondents were female, namely 25 respondents (71.4%).

Table 3. Frequency Distribution of Respondents Based on Education Nurses in the Operating Room of Sidowaras Hospital.

No.	Education	Frequency (f)	Percentage (%)
1.	D3	25	71.4
2.	S1	10	28.5
3.	S2	0	0
	Amount	35	100

Based on table 3, it can be concluded that most respondents have a D3 education, namely 25 respondents (71.4%).

Table 4. Frequency Distribution of Respondents Based on Years of service Nurses in the Operating Room of Sidowaras Hospital

No.	Years	Frequency (f)	Percentage (%)
1.	0 – 5 years	20	57.1
2.	6 – 15 years	10	28.5
3.	16 – 25 years	5	14.2
	Amount	35	100

Based on table 4, it can be concluded that more than half of the respondents have a working period of 0-5 years, namely 20 respondents (57.1%).

Table 5. Frequency Distribution of Respondents Based on Nurses' Occupational Health in the Operating Room of Sidowaras Hospital

No.	Occupational Health	Frequency (f)	Percentage (%)
1.	Good	16	45.7
2.	Not enough	19	54.3
Amount		35	100

Based on table 5, it can be seen that more than half of the respondents have poor occupational health, namely 19 respondents (54.3%).

Table 6. Frequency Distribution of Respondents Based on Nurses' Occupational Safety in the Operating Room of Sidowaras Hospital

No.	Occupational Health	Frequency (f)	Percentage (%)
1.	Good	16	45.7
2.	Not enough	19	54.3
Amount		35	100

Based on table 6, it can be seen that more than half of the respondents have poor work safety, namely 19 respondents (54.3%).

Table 7. Frequency Distribution of Respondents Based on Nurse Performance in the Operating Room of Sidowaras Hospital

No.	Occupational Health	Frequency (f)	Percentage (%)
1.	Good	15	42.9
2.	Not enough	20	57.1
Amount		35	100

Based on table 7, it can be seen that more than half of the respondents have poor performance, namely 20 respondents (57.1%).

Table 8. The Influence of Occupational Health on Nurse Performance in the Operating Room of Sidowaras Hospital

Occupational health	Nurse Performance				Total		P value
	Good		Not enough				
	f	%	f	%	f	%	
Good	1	31	5	14	1	45	0.05
	1	.4		.2	6	.7	
Not enough	4	11	1	42	1	54	
		.4	5	.8	9	.2	
Total	1	42	2	57	3	10	
	5	.8	0	.1	5	0	

Based on table 8. above, the results of the cross-tabulation of respondents who have an understanding health Work Good by (31.4%) on the performance of nurses in the operating room of Sidowaras Hospital and has poor occupational health by (11.4%) on the performance of nurses in the operating room of Sidowaras Hospital. After the tabulation calculation was carried out, a Chi-square test was carried out between the Occupational Health variables and performance showing a Significance value (P-Value) of 0.005 (with a value of $\alpha = 0.05$) meaning that there is an influence between occupational health and performance.

Table 9. The Influence of Occupational Safety on Nurse Performance in the Operating Room of Sidowaras Hospital

Work safety	Nurse Performance				Total	P value
	Good		Not enough			
	f	%	f	%	f	%
Good	1	28.	6	17.	1	45.
	0	5		1	6	7
Not enough	5	14.	1	40	1	54.
		2	4		9	2
Total	1	42.	2	57.	3	10
	5	8	0	1	5	0

From table 9. above, from the results of the cross tabulation of respondents who have a good understanding of work safety and good

performance of 16 people (45.7%), while the understanding of work safety is lacking and has poor performance of 19 people (54.2%). While the calculation of the Chi-square test tabulation between work safety variables and performance shows a significance value (P-value) of 0.031 (with a value of $\alpha = 0.05$), meaning that there is an influence between work safety and performance.

Table 10. Multivariate Logistic Regression Test Results

Variables	B	S.E.	Sig.	Exp. p (B)	95% CI for EXP(B)	
					Lower	Upper
Work safety	-.069	1.234	.955	.933	.083	10.485
Occupational Health	2.164	1.235	.080	8.704	.773	97.996
Constant	-2.874	1.289	.026	.056		

The results of the logistic regression test show that based on the variables in the equation above: all independent variables have a P Value Wald test (sig) value > 0.05 . This means that all variables do not have a significant partial effect on performance in the model. Occupational safety has a Wald sig value of $0.955 > 0.05$ so that it accepts H_0 or which means that occupational safety does not provide a significant partial effect on performance. Occupational health has a Wald sig value of $0.031 > 0.05$ so that it accepts H_0 or which means that occupational health does not provide a significant partial effect on performance.

DISCUSSION

1. The Influence of Health Management System on Nurse Performance in the Operating Room of Sidowaras Hospital

The results of the study showed that most OK nurses had poor occupational health management of 54.7%. Those who had poor occupational health management turned out to have poor performance of 42.8%. The results of the bivariate test showed that occupational health and performance showed a significance (p-value) of 0.005, meaning that there was an influence between occupational health and performance. This study shows that occupational health affects performance. The cross-tabulation results in table 4.7 show that the poor performance of nurses is caused by the implementation of an inadequate occupational health system as many as 20 respondents (42.8%)

This study is in line with previous research conducted by (Maduningtias et al., 2021) that Occupational health has a significant and positive effect on Nurse Performance. Efforts in the event of work accidents carried out by health providers such as Hospitals are carried out to control, reduce and if possible eliminate them, so that Hospital Occupational Health and Safety Management (SMK3) must be managed properly. SMK3 is something new and is a target in hospital accreditation assessments. Then SMK3 is also a factor that is indirectly related to patients, but plays a very important role in the services provided by the hospital. (Cahyani, 2022).

The lack of occupational health and safety issues is not only in Sidowaras Hospital but also occurs in many places, the Director General of Manpower Supervision and Occupational Safety and Health (PPK and K3) of the Ministry of Manpower also stated that one of the main causes

of work accidents in Indonesia is the low awareness of the importance of implementing occupational safety and health (K3) among industry and the community. Of the 2021 workforce of 121 million, in fact they only learned about K3 problems after entering the world of work (Handayani, ZS, 2023).

According to researchers, health management at Sidowaras Hospital is not good and does not yet have an OHS organization tasked with implementing OHS and supervising the implementation of OHS.nurseoperating room. Therefore, the hospital formed an OHS organization, then the director of Sidowaras Hospital will compile an OHS organization and start planning a medical check-up, namely an initial examination for workers and immunization and providing health insurance so that future occupational health gets a very good score. Sidowaras Hospital must conduct a study and identification of sources of danger, assessment and control of risk factors.

2. Implementation of the Occupational Safety Management System (SMK3) on Nurse Performance in the Operating Room of SidoWaras Hospital

The results of the study showed that work safety and performance showed a significance value (p-value) of 0.031, meaning that there is an influence of work safety on performance.nurse.After testing and analysis of work safety variables andhealthwork on performance when tested separately, both occupational safety and occupational health variables have an influence on performance. In an institution such as a hospital, equipment is always needed to support all

activities to create Occupational Safety so that it can be in the very good category (Arrazy et al., 2014). Based on the results of the cross tabulation in table 4.8, it explains that the poor performance of nurses comes from the implementation of a poor occupational safety system, which is 20 respondents (40%).

According to (Makadao E., 2017) safety is the protection of employees from injuries caused by work-related accidents. By making occupational safety and health one of the company's requirements in employee regulations or employees in hospitals and companies will strive to reduce the number of work accidents to the lowest possible.

The hospital's SMK3 is guided by the fact that the process of its activities begins with the planning, organizing, implementing and controlling steps which aim to make culture not just a program in the hospital (Buntaro, 2015) in line with (Arazzy et al., 2014) and (Buntaro, 2015) the results of the study show that the condition of Sidowaras Hospital requires the provision of facilities, infrastructure for occupational safety in every work unit in the hospital including the operating room to reduce the risk of work accidents that may occur to operating room nurses, therefore According to researchers, Sidowaras Hospital must create a work program that is ongoing and periodic and related roles and design and fulfillment of facilities such as personal protective equipment and complete infrastructure and seek professional resources who have special expertise in the field of SMK3 to manage occupational safety management in hospitals, especially in operating rooms

so that the implementation of occupational safety does not experience a less than good category in the implementation in the future.

Occupational safety and health will create the realization of good employee maintenance. This safety and health must be instilled in each individual employee, with good guidance and coaching so that they realize the importance of occupational safety for themselves and for the company. Occupational safety and health (K3) in the operating room is very important to reduce the risk of accidents and occupational diseases.

If we analyze, the procurement of standard PPE and socialization of its use to nurses is very important to improve nurse compliance in implementing occupational safety guidelines. Regular training on occupational health and safety can also improve occupational health and safety behavior.

3. Occupational Health and Safety Management (SMK3) with Nurse Performance in the Operating Room of SidoWaras Hospital

The results of the joint test of the P value of the Wald test (Sig) > 0.05, meaning that all variables do not have a significant partial effect on Performance in the model. Occupational safety does not provide a significant partial effect on Performance. Occupational health does not provide a significant partial effect on performance. Overall operating room nurse performance is in the category of less than good and good has not reached very good. (Nursalam, 2017) explains that the standard of nurse performance is quality nursing services that have been given to patients which is an

advantage compared to other services because it is given 24 hours and continuously. where a bad work environment will affect the level of employee performance. (Dhaini et al., 2016) stated that 30% of nurse performance has not reached the good category influenced by factors of quality, quantity, punctuality, effectiveness, independence and work commitment.

In improving the performance of nurses at Sidowaras Hospital according to the results of the study which still show in the category of less, according to the researcher it is necessary to strengthen individual factors (psychological and organizational), quality, quantity, punctuality, effectiveness, independence and work commitment to improve the welfare of nurses. The operating room work environment also greatly influences the performance of nurses that the work environment both physically and non-physically has positive and negative impacts where a poor work environment will affect the work of operating room nurses So that in the future the performance of operating room nurses at Sidowaras Hospital gets a very good score.

The results of this study are not the same as the study (Dodi W., 2020) research on employees of PT. Apie Indo explanatory research method with 80 samples. shows that occupational health has a significant influence on employee performance. The employee performance variable (Y) is significantly influenced by occupational safety (X1) and occupational health (X2). Occupational safety has the most dominant influence, amounting to 0.407, on employee performance.

CONCLUSIONS

After the analysis was conducted, this study concluded that most of the implementation of the occupational health management system was not good and most of the implementation of occupational safety (SMK3) on nurse performance was not good. And there is an influence of the implementation of the occupational health and safety management system (SMK3) on the performance of nurses in the Operating Room of SidoWaras Hospital in 2024. When a joint test was conducted, there was no influence of the Implementation of the Occupational Health and Safety Management System (SMK3) on Nurse Performance in the Operating Room of Sido Waras Hospital, Mojokerto Regency, meaning that both are very important, none is dominant.

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