

FACTORS INHIBITING THE IMPLEMENTATION OF THE OCCUPATIONAL SAFETY AND HEALTH MANAGEMENT SYSTEM (HOSHMS) AT CILEGON CITY REGIONAL HOSPITAL

Sri Amamal Afiah¹, Wiwik Eko Pertiwi^{2*}, Annissa³, Puji Eka Mathofani⁴

Community Health Studies Program, Universitas Faletehan, Serang
Jalan Raya Cilegon KM. 06 Pelamunan, Kramatwatu, Serang-Banten

Email: ¹ afiiah.saa9@gmail.com, ^{2*} wiwikekopertiwi@yahoo.com, ³ annissa1206@gmail.com,
⁴ pujimathofani@gmail.com

Abstract

Hospitals are one of the places that have a risk of occupational diseases and work accidents caused by various dangerous factors. The potential risk of disease or work accidents does not only occur to workers, patients but also to visitors and the community around the hospital. Therefore, hospitals are obliged to implement occupational safety and health through the management of the Hospital Occupational Safety and Health Management System (HOSHMS). This study aims to determine the relationship between inhibiting factors and the implementation of HOSHMS at Cilegon City Regional Hospital in 2023. The population in this study was all 335 nurses with a sample of 88 respondents. The samples were taken with proportional random *sampling*. The research design used is cross-sectional with chi square test at the level of significance (CI=95%, $\alpha=5\%$). The research data was collected through direct interviews using a questionnaire. The results of the analysis showed that there was no relationship between the quality of human resources and the implementation of OSHMS (p-value = 1.000) and no relationship between education and OSH training (p-value = 0.578) with the implementation of HOSHMS. In addition, there was a relationship between data management and OSH information (p value = 0.004) and a relationship between the implementation of law enforcement and the implementation of HOSHMS (p value = 0.012). Hospitals were advised to carry out a continuous OSH monitoring which is carried out in all work units and implement law enforcement more intensively.

Keywords: Human Resource Quality, Hospitals, OSHMS, OSH Data Management,

Introduction

Hospitals are health service institutions that provide comprehensive individual health services that provide inpatient, outpatient and emergency services (Regional Minister of Health Regulation No. 66, 2016). Hospitals have various workforce problems with various risks of Occupational Diseases (PAK) and even Occupational Accidents (CAC). (S. Putri et al., 2018a). This is because there are potential dangers in hospitals, including physical dangers, chemical dangers, biological dangers, ergonomic dangers and psychological dangers (Indriati & Setiawan, 2021).

The existence of these dangers means that hospitals are obliged to implement efforts to develop Occupational Safety and Health (Putri et al., 2018). Hospital Occupational Safety and Health are all activities to ensure and protect the safety and health of hospital human resources, patients, patient companions, visitors and the hospital environment through efforts to prevent work accidents and work-related illnesses in hospitals (RI Minister of Health Regulation No. 66, 2016). Implementing Hospital OSH cannot be separated from the Occupational Safety and Health Management System (OSHMS). The government itself has regulated the implementation of occupational safety and health in hospitals

through policies contained in Regulation of the Minister of Health of the Republic of Indonesia Number 66 of 2016.

The results of *National Safety Council* (NSC) in 2008 showed that the occurrence of work accidents in hospitals was 41% greater than in other industries. Cases that often occur are needle sticks, sprains, back pain, scratches, cuts, burns, infectious diseases and others (Ibrahim et al., 2017). *Survey* conducted on nurses at one of the regional hospitals in Indonesia in 2018, the types of work accidents experienced by nurses were 33.33% from needle pricks and 31.37% due to fatigue (Isnaniar, 2018). The Minister of Manpower fully encourages more and more hospitals to implement OSHMS consistently in accordance with applicable laws and regulations (Putri, 2023).

In general, hospitals have implemented OSHMS, but it is still not implemented well, including in terms of OSH seminars/training, regular health checks, use of Personal Protective Equipment (PPE), as well as monitoring Occupational Accidents and Occupational Diseases (PAK) (Aeni et al., 2022). This is because there are several inhibiting factors that interfere with the smooth implementation of OSHMS, including the quality of Human Resources (HR), data and information related to OSH, implementation law enforcement, wage levels and social security, management and worker commitment as well as OSH education and training (Amri, 2007).

The Cilegon City Regional General Hospital is a type B hospital in Cilegon City which is not far from industry and the city center and is the first referral health facility for people in the surrounding area with a total of 2,222 visitors/month. Based on data on work accidents in hospitals, in 2021 there were 5 cases of work accidents, including 2 cases due to needle sticks and 3 of them due to facilities and infrastructure. In 2022, the number of work accidents will increase by 9 cases, of which 3 are due to needle pricks and 6 of them are due to the facilities and infrastructure at the Cilegon City Regional Hospital (Cilegon City Hospital, 2022).

Based on the description above, the aim of this research is to determine the factors inhibiting the implementation of the Hospital Occupational Safety and Health Management System (HOSHMS) at the Cilegon City Regional Hospital in 2023.

Method

This research uses a cross-sectional design which aims to determine the factors inhibiting the implementation of the Hospital Occupational Safety and Health Management System (HOSHMS). The research was conducted at the Cilegon City Regional Hospital which was carried out in April - June 2023. The population in this study was all 335 nurses and the sample studied was 88 nurses in the inpatient department who were selected using the method of simple random sampling. The variables studied consist of independent variables, namely the quality of human resources, OSH education and training, data and information related to OSH and implementation law enforcement. The dependent variable of this research is the implementation of OSHMS. The instrument used in this research is a questionnaire that refers to the Hospital OSH guidelines issued by the Indonesian Ministry of Health No. 66 of 2016 concerning Hospital Work Safety.

Implementation of hospital OSHMS, OSH education and training, data and information related to OSH and implementation law enforcement categorized into poor and good. The category is not good if the value obtained based on data analysis shows less than the average value. The good category is determined if the value obtained by the respondent shows more than the average value. The quality of human resources is declared good if they meet all the criteria, namely (minimum D3 education, have STR and work in accordance with their competencies). The collected data was analyzed using a chi-square *test*, with a significance limit of $\alpha = 5\%$ with a confidence level of 95%. This research has received ethical approval from the Faletihan University Research Ethics Committee with number 297/KEPK.UF/VI/2023.

Results

Frequency Distribution of Hospital OSHMS Implementation and Inhibiting Factors

Table 1. Frequency Distribution of Hospital OSHMS Implementation and Inhibiting Factors

Variable	Amount	(%)
Implementation of OSHMS		
Not good	35	39,8%
Good	53	60,2%
Quality of HR		
Not good	2	2,3%
Good	86	97,7%
OSH Education and Training		
Not good	32	36,6%
Good	56	63,4%
OSH Data and Information Management		
Not good	20	22,7%
Good	68	77,3%
Law Enforcement Implementation		
Not good	28	31,8%
Good	60	68,2%

Based on table 1, it is known that the majority of respondents stated that the implementation of HOSHMS was in the good category. The quality of human resources is in the good category, OSH education and training is not good at 36.6%, OSH data and information is not good at 22.7% and law enforcement implementation more were in the good category (68.2%).

Factors Inhibiting the Implementation of OSHMSRS

Table 2. Relationship between factors inhibiting Occupational Safety and Health with the implementation of HOSHMS

Variable	Implementation of OSHMS				<i>P value</i>	OR
	Not good		Good			
	N	%	N	%		
Quality of HR						
Not good	1	50	1	50	1,000	-
Good	34	39,5	52	60,5		
OSH Education and Training						
Not good	11	34,4	21	65,6	0,578	-
Good	24	42,9	32	57,1		
OSH Data and Information Management						
Not available	14	70	6	30	0,004	5,222
Available	21	30,9	47	69,1		
Law Enforcement Implementation						

Not good	17	60,7	11	39,3	0,012	3,606
Good	18	30	42	70		

Based on table 2, it is known that the variables that are obstacles to the implementation of HOSHMS are the management of OSH data and information and law enforcement implementation. The quality of human resources as well as OSH education and training variables are not inhibiting factors in the implementation of hospital OSHMS.

Discussion

Based on the analysis, it is known that the implementation of the Occupational Safety and Health Management System (OSHMS) is in the good category. This is in line with previous research which states that there are more applications of OSHMS in the good category compared to those that are not good (Aeni et al., 2022b). This is because the OSHMSRS implementation standards are in accordance with Minister of Health Regulation No. 66 of 2016, namely in terms of establishing HOSHMS policies, HOSHMS planning, implementing HOSHMS plans, monitoring and evaluating HOSHMS as well as reviewing and improving HOSHMS performance. There are several OSHMS implementation programs that are not yet running, namely the extra fooding program. This is supported by findings which show that as many as 72.7% of respondents stated that they had never received supplementary food with adequate nutrition (*extra fooding*). Apart from that, 37 (42%) respondents have never carried out regular health checks because they have not been running since 2017. However, as an effort to protect employees, starting in 2024 the head of the HOSHMS installation plans to start holding regular health checks again for employees, especially those who have the highest risk in their workplace/environment. The implementation of hospital OSH will run well and optimally if all the supporting activities are also carried out well (Bando et al., 2020).

The results of the research show that Cilegon Hospital nurses have met the qualifications and standards for nurses, namely a minimum D3 Nursing education, have a Nurse Registration Certificate (STR) and work according to their competencies. The results of this research are strengthened by previous research which states that as many as 97.7% of respondents have good quality (Ningsih, 2018). Indonesian nurse competency standards state that the quality of human resources for nurses is good, namely those who have completed nursing education programs both inside and outside country recognized by the Government of the Republic of Indonesia, with the lowest level of education, namely a three-diploma (D III) nursing program, has an active registration certificate (STR) given by the Nursing Council and is able to work according to their competence in the field of nursing (Republic of Indonesia, 2014).

In this research, it was discovered that the respondents' last education was Diploma 3 for 46.6% and Bachelor's Degree for 17% of respondents and Nursing for 36.4% of respondents. The majority of respondents already have an active STR (97.7%). All respondents were able to work according to their competence. Competencies that nurses need to have include carrying out tasks in a timely manner, being able to document both nursing records and reporting. Nurses are also required to have skills *Basic Trauma Cardiac Support* (BTCLS) and *Basic Life Support* (BHD). Skills that nurse also need to have are Emergency Patient Management (PPGD) training, TB DOTS training, Resuscitation training, Maternal Neonatal Health training and Hecting.

These competencies are able to encourage nurses to provide good and quality services to patients, patient families and other hospital visitors. If the workforce is not qualified while health service facilities are becoming increasingly sophisticated, it will potentially cause difficulties and the ability to operate modern equipment will be very limited. This can cause work accidents (Masram & Mu'ah, 2015). The results of field observations show that the quality of human resources at the Cilegon City Regional

Hospital is almost entirely good because there is administrative selection at the start of work that meets statutory requirements. Poor quality of human resources does not necessarily affect the implementation of OSHMS, if human resources are balanced with the implementation of OSH behavior and culture so that it can encourage the implementation of OSHMS.

HR competency needs to continue to be improved through education and training, especially those related to aspects of Occupational Safety and Health (OSH). The findings in the field showed that there were still respondents who were in the poor category (36.4%) in terms of OSH education and training. This is in line with research conducted by Ningsih (2018), which found results from 97 respondents who stated that OSH training was in the good category as many as 65 (67.01%) respondents and OSH training in the poor category as many as 23 (23.71) respondents.

OSH education and training is a program that is expected to provide a response to improving abilities in certain jobs and gaining general knowledge and understanding of the entire work environment (Husna et al., 2021). In general, 70 (80.7%) of the respondents had taken part in socialization regarding work-related diseases and work-related accidents, 71 (80.7%) of the respondents had attended OSH training, including hazard identification training, fire prevention training, training emergency or disaster response, training in the use of PPE. The period of time that respondents attended OSH training was more than 1 year ago, as many as 39 (44.3%) respondents. As an effort to encourage good OSH implementation, one way is by providing regular OSH education and training to all hospital human resources so that information and knowledge during OSH education and training activities can influence behavior and discipline, especially regarding OSH issues.

The results of this research are not in line with research conducted by Ningsih (2018) which shows that there is a significant relationship between OSH education and training and OSHMS implementation (Ningsih, 2018a). Where OSH education and training carried out by employees has an influence on the implementation of OSHMS because it can influence skills related to OSH so that it can prevent sources of risk of work accidents (Ningsih, 2018).

The results of field observations show that the Cilegon City Regional Hospital has held OSH education and training activities which are carried out every year. It is recorded that in 2022, OSH education and training activities have a target of 150 people coming from all employees, both medical and non-medical officers. The training carried out is training on risk identification, fire prevention, use of PPE, emergency or disaster response. However, OSH education and training activities at the Cilegon City Regional Hospital are carried out in an integrated manner rolling. This means that employees who have participated in OSH education and training activities in the previous year are advised not to participate in activities in the following year. This system aims to provide opportunities for other employees to take part in these activities. This results in employees being at risk of forgetting their skills and knowledge regarding OSH, so that in this study there was no significant influence between OSH education and training and the implementation of OHSMS in hospitals.

Based on univariate analysis, it is known that data management related to OSH is in the good category as many as 68 (77.3%) respondents and data management related to OSH is in the poor category as many as 20 (22.7%) respondents. This is in line with previous research which showed the same results. Management of data and information related to OSH is very important because it can be used as a means to determine the level of success of a OSH program and whether the implementation of the program has achieved the expected targets (Ningsih, 2018b). Respondents who stated that they did not record and report incidents of CAC and PAK that they experienced were because they forgot and considered accidents such as needle sticks or slips to be minor incidents that did not need to be recorded or reported. However, data and information related to OSH problems, incidents of PAK and CAC are very important so they need to be recorded and reported to make it easier for hospitals to know about OSH problems that need follow-up. Completeness of data and information relating to OSH can be used

as a means to determine the level of success of an OSH program and whether the implementation of the program has achieved the expected targets (Aeni et al., 2022b).

The results of field observations show that the data and information relating to OSH in the Cilegon City Regional Hospital is good, namely in terms of the implementation of the OSH program which is always recorded and reported, there are problems related to OSH which are always recorded and reported as well as the occurrence of work-related accidents (CAC) and Occupational Diseases (PAK) experienced by respondents were recorded and reported. The completeness of data and information related to OSH aims to identify problems so that there can be follow-up and improvements related to Occupational Safety and Health (OSH). With complete data and information related to OSH, it makes it faster and easier for hospital management to determine priorities for handling work accident problems so that they can prevent risks arising from these problems (Aeni et al., 2022).

Implementation Law enforcement *is also* significantly related to the implementation of hospital OSHMS. Weak Law enforcement is one of the inhibiting factors in the implementation of RS OSHMS. Implementation Law enforcement is the implementation of provisions/regulations related to OSH as well as binding sanctions for any violations of these provisions/regulations. Low level of implementation law enforcement in hospitals causes a lack of awareness among employees in hospitals to always implement OSHRS in every aspect of their work so that employees are vulnerable to experiencing PAK and KAK (Amri, 2007). The results of this research are in line with research conducted by Aeni et al., (2022) which states that there is a significant relationship between the implementation law *enforcement* and the implementation of OSHMS. Implementation Law enforcement which is not yet optimal regarding violations of existing OSH provisions, resulting in companies paying less attention to the implementation of OSH (Aeni et al., 2022). The research results show that the form of sanctions for every violation regarding OSH is only in the form of a warning/warning and a reduction in the value on the worksheet. Application Law enforcement good ones can influence a person's compliance attitude, so that they can change habits or behavior in complying with policies/regulations regarding OSH so as to encourage good implementation of OSHMS.

Conclusion

The inhibiting factor in implementing the Hospital Occupational Safety and Health Management System (OSHMS) is the management of OSH data and information and implementation law *enforcement*. The quality of human resources, OSH education and training is not an inhibiting factor in implementing RS OSHMS.

References

- [1] Aeni, H. F., Indragiri, S., Septiani, J. D., & Banowati, L. (2022a). The Relationship Between Factors Inhibiting OSHMS and the Implementation of OSHMS. *Health Journal*, 13(1), 40–49. <https://doi.org/10.38165/jk.v13i1.280>
- [2] Aeni, H. F., Indragiri, S., Septiani, J. D., & Banowati, L. (2022b). Relationship between Inhibiting Factors for OSHMS and Implementation of OSHMS. *Health Journal*, 13(1). <https://doi.org/10.38165/jk.v13i1.280>
- [3] Amri, T. T. (2007). The Relationship Between Inhibiting Factors of the Occupational Safety and Health Management System (OSHMS) and the Implementation of the Occupational Safety and Health Management System (Study at Balung Hospital, Jember Regency). In *Thesis*. <http://repository.unej.ac.id/handle/123456789/73102>
- [4] Bando, J. J., Kawatu, P. A. T., Ratag, B. T., Health, F., University, M., Manado, S. R., Basic Concepts of Health, A., & Rumah, K. (2020). Overview of the Implementation Of The Hospital

- Work Safety And Health Program (OSH Hospital) At The Manado Advent Hospital. *KESMAS Journal* (Vol. 9, Issue 2).
- [5] Husna, I. N., Wahidin, M., & Wekadigunawan, C. S. P. (2021). Factors Related to Unsafe Actions in Mechanical Workers of PT. X. *Health Publica*, 2(02). <https://doi.org/10.47007/hp.v2i02.4177>
 - [6] Ibrahim, H., Damayati, D. S., Amansyah, M., & Sunandar. (2017). Overview of the Implementation of Hospital Occupational Safety and Health Management Standards at the Haji Makassar Regional General Hospital. *Al-Sihah: Public Health Science Journal*, 9(2).
 - [7] Indriati, G., & Setiawan, P. (2021). Analysis of OSHRS Risk Management in the Emergency Installation of RSUP Dr. M. Djamil Padang. *Encyclopedia of Journals*, 3(3). <https://doi.org/https://doi.org/10.33559/eoj.v3i3.742>
 - [8] Isnaniar. (2018, December 2). *Survey of Work Accidents for Hospital Inpatient Nurses*. <https://fmipa.umri.ac.id/?p=7277>
 - [9] Masram, & Mu'ah. (2015). *Human Resource Management* (1st ed.). Contact Publisher.
 - [10] Ningsih, S. (2018a). Factors Related to the Implementation of OSH Management Standards at Bina Kasih General Hospital Medan in 2017. *The Indonesian Journal of Medical Laboratory*, 1(1). <https://ijml.jurnalsenior.com/index.php/ijml/article/view/6>
 - [11] Ningsih, S. (2018b). Factors Related to the Implementation of OSH Management Standards at the Bina Kasih General Hospital in Medan in 2017. *The Indonesian Journal of Medical Laboratory*, 1(1).
 - [12] Regulation of the Minister of Health of the Republic of Indonesia No. 66 of 2016. (2016). *About Hospital Occupational Safety and Health*.
 - [13] Putri, R. D. (2023, January 12). *Minister of Manpower: The Number of Work Accidents Has Increased in the Last Three Years*. Titro.Id. <https://tirto.id/menaker-jumlah-kecelakaan-kerja-meningkat-tiga-tahun-terakhir-gA3q>
 - [14] Putri, S., Santoso, S., & Rahayu, E. P. (2018a). Implementation of Occupational Safety and Health in Occupational Accidents for Hospital Nurses. *Endurance Journal*, 3(2). <https://doi.org/10.22216/jen.v3i2.2686>
 - [15] Putri, S., Santoso, S., & Rahayu, E. P. (2018b). Implementation of Occupational Safety and Health in Occupational Accidents for Hospital Nurses. *Endurance Journal*, 3(2), 271. <https://doi.org/10.22216/jen.v3i2.2686>
 - [16] Republic of Indonesia. (2014). *Law of the Republic of Indonesia Number 38 of 2014 concerning Nursing*. <https://peraturan.bpk.go.id/Details/38782/uu-no-38-tahun-2014>
 - [17] Cilegon City Regional Hospital. (2022). *Profile of Cilegon City Regional Hospital*.