

RELATIONSHIP BETWEEN FACTORS AFFECTING THE IMPLEMENTATION OF OCCUPATIONAL SAFETY AND HEALTH AT HOSPITAL X

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ABSTRACT

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Background: Occupational Safety and Health (OHS) services are a crucial aspect in creating a safe and healthy work environment, especially in hospitals that have a high potential for physical, chemical, biological, ergonomic, and psychosocial hazards. The Hospital OHS Service is one of the efforts to improve the quality of Hospital services, particularly in terms of health and safety for hospital staff, patients, visitors/patient escorts, and the surrounding community. According to the guidelines of the Minister of Health Regulation No. 66 of 2016 concerning Hospital Occupational Safety and Health, it is stated that OHS Service efforts must be implemented in all workplaces, especially workplaces that have a risk of health hazards and are easily infected by disease. Method: Observational with a cross-sectional study approach Result: The results of the study showed that there was a significant relationship between knowledge ($p=0.000$), training ($p=0.000$), workload ($p=0.012$), and length of service ($p=0.003$) with the implementation of occupational health and safety at Hospital X. Conclusion: It is hoped that employees will always follow the hospital's occupational health and safety guidelines so that in carrying out their duties work accidents can be avoided..

1. INTRODUCTION

Occupational Safety and Health (OHS Service) is a systematic effort to protect workers, patients, and visitors from various potential hazards that may arise in the work environment. Hospitals as health service institutions have high occupational risks because they involve various medical and non-medical activities that are in direct contact with humans, chemicals, sharp medical instruments, infectious waste, and high work pressure. Therefore, the

implementation of Occupational Safety and Health (OHS Service) in hospitals is a necessity in order to create a safe, comfortable, and healthy workplace. (Zuniawati, 2025). The implementation of Occupational Safety and Health (OHS Service) is one form of effort to create a safe, healthy workplace, free from environmental pollution, so that it can reduce and/or be free from work accidents and occupational

diseases, which can ultimately increase work efficiency and productivity.

Hospital workers are at 1.5 times greater risk than other worker groups. The probability of HIV transmission after a needle stick injury contaminated with HIV is 4: 1000. The risk of HBV transmission after a needle stick injury contaminated with HBV is 27 - 37: 100. The risk of HCV transmission after a needle stick injury containing HCV is 3 - 10: 100. Based on existing data, acute incidents are significantly greater in hospital workers compared to all workers in all categories (gender, race, age, and employment status) (Zuniawati, 2025).

Hospital workers are a high-risk group for various occupational hazards due to direct exposure to patients, chemicals, medical equipment, waste, and high work pressure. Hospitals are not only places for healing but also potential sources of various hazards that can threaten the safety and health of workers (Enne, N., Suharni, & Samsualam. (2023)

Hospitals, as healthcare facilities, must prioritize improving the quality of services to the community without neglecting Occupational Safety and Health (K3) efforts for all hospital workers. Hospitals with good quality management can increase the utilization of healthcare facilities by the community, so the demand for Occupational Health and Safety (OHS Service) program management in hospitals is increasingly high because of Human Resources (HR). Human Resources (HR) are all individuals involved in an organization and play a key role in achieving the organization's goals. Hospitals, visitors/patient escorts, patients, and the community around the hospital want to get protection from health problems and work accidents, or because the condition of the facilities and infrastructure in the hospital does not meet standards (J. J. Bando, 2020).

Despite having implemented the OHS Service program (occupational safety and health), based on initial data collection, there have been 21 work accidents at

Hospital X from 2017 to mid-2025, with the most frequent occurrence being slipping due to slippery bathroom floors and the absence of handles in the bathroom. The benefits arising from the implementation of occupational safety and health, at least Hospital X has shown efforts to prevent and reduce the level of accidents in the Hospital. The form of implementation of occupational safety and health (OHS Service) at Hospital X is the existence of an occupational safety and health (OHS Service) program that has been implemented since 2009 and continues to be implemented and revised until now. Based on the above, the researcher is interested in researching "The Relationship of Factors Influencing the Implementation of Occupational Safety and Health at Hospital X."

2. METODE

The type of research used in this study is observational with a cross-sectional study approach that aims to see factors related to the implementation of occupational health and safety at Hospital X Hospital observed in the same time period. This study was conducted at Hospital X and was conducted in November 2025. The population in this study were all employees of Hospital X, both medical and non-medical personnel, totaling 180 people. The sample in this study was some of the employees of Hospital X, with sampling carried out by Purposive Sampling.

Secondary data is data not obtained directly by the researcher. Supporting data is obtained from Hospital X and related agencies. Primary data was obtained through direct interviews with employees using a questionnaire and direct observation of the research subjects regarding OHS implementation.

The purpose of data analysis is to facilitate the description and interpretation of the processed data, thereby gaining meaning or significance from the research. Univariate analysis aims to explain or describe each research variable. Generally,

this analysis only produces frequency distributions and percentages for each variable. Bivariate analysis is performed on two variables suspected of being related or correlated. This analysis is conducted to determine the relationship between the dependent and independent variables in the form of a crosstab using the computerized SPSS program with the Chi-Square statistical test. The processed data is then compiled into a table accompanied by a table explanation.

3. RESULTS AND DISCUSSION

Table 1. Frequency Distribution of Respondents by Gender at Hospital X

No	Gender	n	Percentage
1	Male	18	29.5
2	Female	44	70.5
3	Total	62	100

Table 1 shows that of the 62 respondents, 29.5% were male and 70.5% were female.

Table 2. Frequency Distribution of Respondents by Age Group at Hospital X

No	Age	n	Percentage
1	20-25	3	4.9
2	26-30	6	9.8
3	31-35	15	24.6
4	36-40	25	41.0
5	41-45	8	13.1
6	51- 55	5	6.6
7	Total	62	100

Table 2 shows that of the 62 respondents, the largest number (41%) were in the 36-40 age range, and the smallest number (4.9%) were in the 20-25 age range.

Table 3. Frequency Distribution of Respondents by Knowledge at Hospital X

No	Knowledge	n	Percentage
1	Sufficient	39	63.9
2	Insufficient	23	36.1
3	Total	62	100

Table 3 shows that of the 62 respondents surveyed, 63.9% had sufficient knowledge and 36.1% had insufficient knowledge.

Table 4. Frequency Distribution Respondents by Training at Hospital X

No	Training	n	Percentage
1	Attended	44	72.1
2	Never attended	18	27.9
3	Total	62	100

Table 4 shows that of the 62 respondents recorded, 72.1% had attended training and 27.9% had never attended training.

Table 5. Frequency Distribution of Respondents According to Workload at Hospital X

No	Workload	n	Percentage
1	Normal	43	70.5
2	Abnormal	19	29.5
3	Total	62	100

Table 5 shows that of the 62 respondents surveyed, 70.5% had a normal workload and 29.5% had an abnormal workload.

Table 6. Frequency Distribution of Respondents by Length of Service at Hospital X

No	Length of Service	n	Percentage
1	Old	42	68.9
2	New	20	31.1
3	Total	62	100

Table 6 shows that of the 62 respondents, 68.9% had been employed for a long time and 31.1% had recently started working.

Table 7. Frequency Distribution of Respondents According to Hospital Occupational Health and Safety Implementation at Hospital X

No	OHS Service	n	Percentage
1	Apply	44	72.1
2	Not applying	18	27.9
3	Total	62	100

Table 7 shows that of the 62 respondents surveyed, 72.1% implemented hospital OHS practices and 27.9% did not.

Table 8. Cross-tabulation results between knowledge variables and hospital OHS implementation at Hospital X.

Knowledge	Applying OHS				Total	χ^2 (p)
	Applying	%	Not Applying	%		
Sufficient	34	87.2	5	12.8	39	12.182 (0,000)
Insufficient	10	45.5	13	54.5	23	
Total	44	72.1	18	27.9	62	

Table 8 shows that of the 39 respondents at Hospital X with sufficient knowledge, 87.2% implemented hospital OHS practices, compared to 12.8% who did not.

Based on the statistical test, the chi-square test result was $X^2 = 12.182$ with a p-value of 0.000 ($p < 0.05$). It can be concluded that there is a significant relationship between knowledge and hospital OHS implementation at Hospital X.

Table 9. Cross-tabulation Results of Training Variables on Hospital OHS Implementation at Hospital X

Training	Applying OHS				Total
	Applying	%	Not Applying	%	
Attended	38	86.4	6	13.6	44
Never attended	6	35.3	12	64.7	18
Total	44	72.1	18	27.9	62

Table 9 shows that of the 44 respondents who had attended training, 72% implemented hospital OHS practices, compared to 27.9% who did not.

Based on statistical testing, Fisher's Exact Test yielded a p-value of 0.000 ($p < 0.05$). These results indicate a significant relationship between training variables and hospital OHS implementation.

Table 10. Cross-tabulation Results Workload Variables on Hospital OHS Implementation at Hospital X

Workload	Applying OHS				Total	χ^2 (p)
	Applying	%	Not Applying	%		
Normal	35	81.4	8	18.6	43	6.222 (0,013)
Abnormal	9	50	10	50	19	
Total	44	72.1	18	27.9	62	

Table 10 shows that of the 43 respondents with a normal workload, 81.4% implemented hospital OHS, compared to 18.6% who did not.

Based on statistical tests, the chi-square test yielded $X^2 = 6.222$ with a p-value of 0.013 ($p < 0.05$). These results indicate a significant relationship between workload and hospital OHS implementation.

Table 11. Cross-tabulation Results Between Length of Service and Hospital Occupational Health and Safety Implementation at Hospital X

Length of Service	Applying OHS				Length of Service	χ^2 (p)
	Applying	%	Not Applying	%		
Old	35	83.3	8	16.7	42	8.418 (0,004)
New	9	47.4	11	52.6	20	
Total	44	72.1	18	27.9	62	

Table 11 shows that of the 42 respondents with a long tenure, 83.3% implemented hospital OHS practices, compared to 16.7% who did not.

The statistical test yielded a chi-square test of $X^2 = 8.418$ with a p-value of 0.004 ($p < 0.05$). These results indicate a significant relationship between length of service and hospital OHS practices.

DISCUSSION

Worker knowledge is the level of understanding or insight a person has regarding the work they perform, including tasks, responsibilities, work procedures, tools used, and risks and how to prevent them. Worker knowledge of task implementation, as well as general knowledge that influences the task

implementation significantly determines the success or failure of task implementation (Nengcy, 2025). Workers who lack sufficient knowledge of their field of work will perform less than optimally (Maskat, M., & Hoessin, 2022).

The bivariate analysis showed that 87.2% of the 39 respondents with sufficient knowledge implemented hospital OHS, compared to 12.8% of those who did not. Meanwhile, 45.5% of the 22 respondents with insufficient knowledge implemented hospital OHS, compared to 54.5% of those who did not.

Based on the statistical test, the chi-square test result was $X^2 = 12.182$ with a p-value of 0.000 ($p < 0.05$). These results indicate a significant relationship between knowledge and hospital OHS implementation.

The results of this study indicate that employee OHS knowledge is a significant factor in supporting the implementation of OHS in hospitals. This is supported by employee training. Training is one way to improve knowledge (Narulita, 2022). Training is specific, practical, and immediate. Specificity means that the training is related to the field of work being carried out, practicality, and immediate means that what has been trained can be put into practice (Nawawi, 2023). Generally, training is intended to improve mastery of various work skills in a relatively short period of time. Training seeks to prepare employees for the work at hand. (Purba, 2024). However, there are still employees who do not implement OHS in hospitals despite having sufficient knowledge. This is due to the attitude of employees who support the implementation of OHS in hospitals.

A person's attitude is a person's response or tendency to think, feel, and act towards an object, situation, or other person. A person's attitude in responding to a problem is influenced by a person's personality, which is related to mental preparedness that is learned and organized through a person's experience of others.

people, objects, and situations related them (Simarmata, 2023)

Training is a systematic process to improve a person's knowledge, skills, and attitudes so they can perform tasks or jobs more effectively and efficiently (Suma'mur, 2019). Lack of proper training results in numerous errors in the operation of heavy equipment, which also impacts the company, requiring the company to replace spare parts for the equipment. "Training is the process of teaching new or existing employees the basic skills they need to perform their jobs" (Suma'mur, 2019). Training is one way to improve the quality of human resources in the workplace. Employees, both new and existing, need to undergo training because job demands can change due to changes in the work environment, strategies, and so on.

The results of the study showed that of the 62 respondents recorded, 72.1% had attended training, and 27.9% had never attended training. Meanwhile, the results of the bivariate analysis showed that of the 44 respondents who had attended training, 87.2% implemented hospital OHS, compared to 12.8% who did not implement hospital OHS. Meanwhile, of the 17 respondents who had never attended training, 35.3% implemented hospital OHS, which was smaller than the 64.7% who did not implement hospital OHS.

Based on statistical tests, Fisher's Exact Test results showed a p-value of 0.000 ($p < 0.05$). These results indicate a significant relationship between training and hospital OHS implementation.

Training is a form of education that involves the learning process to acquire and improve skills outside the formal education system in a relatively short time, with methods that emphasize practice over theory. Good training brings benefits, including: increasing employee knowledge of external cultures and competitors, helping skilled employees work with new technologies, helping employees understand how to work effectively in teams to produce quality services and products, ensuring that

the company culture emphasizes innovation, creativity, and learning, ensuring safety by providing new ways for employees to contribute to the company when their jobs and interests change or when their skills become obsolete, and preparing employees to accept and work more effectively with each other, especially with minorities and women (Tanjung, 2022).

According to Health Law No. 36 of 2009, workload is defined as the amount of work a position/organizational unit must undertake and is the product of the amount of work performed and the time required. Every worker can work healthily without endangering themselves or the surrounding community. Therefore, efforts are needed to harmonize workloads to achieve optimal work productivity. (Wibowo, 2018). Productivity is the ability of an individual, group, or organization to produce output (work results) effectively and efficiently by utilizing available resources such as time, energy, and materials. Simply put, productivity indicates the ratio between the results achieved and the resources used. The greater the results obtained with the same resources, the higher the productivity. (Wibowo, 2019)

The results showed that of the 62 respondents surveyed, 70.5% had a normal workload and 29.5% had an abnormal workload. Bivariate analysis showed that 81.4% of the 43 respondents with a normal workload implemented hospital OHS practices, compared to 18.6% of those without. Furthermore, 50% of the 18 respondents with an abnormal workload implemented hospital OHS practices, the same as the 50% who did not implement hospital OHS practices.

Statistical tests yielded a chi-square test of $X^2 = 6.222$ with a p-value of 0.013 ($p < 0.05$). These results indicate a significant relationship between workload and hospital OHS implementation.

Workload is the amount of work or task demands that must be completed by a person within a certain period of time.

physically and mentally. Workload can originate from job demands, the work environment, working hours, and the individual's ability to adapt to the task. Employee workload greatly determines work productivity and influences employee attitudes in implementing hospital OHS. A workload that is in accordance with established standards, for example, working hours that are appropriate for Indonesian society are 8 hours a day. However, there are still those who have a normal workload but still consider their workload to be inappropriate for the job. This is caused by the attitude and willingness of employees to implement hospital OHS. Employees are negligent in implementing occupational health and safety because they are considered to hinder their work, even though this is done to protect employees from work-related accidents.

Tenure is usually associated with the time a person started work, where work experience also determines a person's performance. Longer tenure means better skills because they have adapted to the job. The study results showed that of the 62 respondents surveyed, 68.9% had long-term employment and 31.1% had recently started. Bivariate analysis revealed that 83.3% of the 42 respondents with long-term employment implemented hospital OHS, compared to 16.7% who did not.

Based on statistical tests, the chi-square test yielded $X^2 = 8.418$ with a p-value of 0.004 ($p < 0.05$). These results indicate a significant relationship between length of service and hospital OHS implementation. Length of service is the length of time a person has worked or served at a particular agency, company, or institution, from the time they were first hired until a specific date. Length of service is often used as an indicator of a worker's experience and level of loyalty to their workplace.

In general, employees with longer tenure demonstrate better performance than those with shorter tenure. The improved performance of employees with longer

tenure is possible because they are increasingly skilled at their jobs.

Work experience is a key factor in implementing hospital OHS. This is due to the tendency for employees with more experience working in hospitals to be better equipped to implement OHS. With more work experience, employees naturally have more experience implementing OHS in hospitals, especially when facing various challenges. In addition to extensive experience, work experience also makes employees more skilled and careful in carrying out their work, ensuring that their work does not cause injury to themselves or others (Wunaini, 2023).

Most activities in hospitals are repetitive, including the implementation of hospital OHS. This repetition makes employees more skilled at their work, thus improving their performance. As is the case in other workplaces, new or recently hired employees still need time to learn and adapt to the work. They lack experience, so it's natural for some of them to make mistakes and not demonstrate good performance in implementing hospital OHS. Furthermore, some employees still haven't consistently implemented hospital OHS despite having long tenures. This is due to employees often feeling bored with carrying out repetitive activities based on SOPs, which leads to neglecting to implement hospital OHS in their work. Furthermore, as tenure increases, employees' age also increases, potentially resulting in decreased concentration or focus in implementing hospital OHS (Zainuddin, 2021).

Hospital Occupational Safety and Health (K3RS) is an effort to create a safe, healthy, and comfortable work environment for all employees, patients, visitors, and other parties in the hospital. Hospitals have a high potential for hazards, such as biological, chemical, physical, ergonomic, and psychosocial hazards. Therefore, the implementation of K3RS is crucial to prevent workplace accidents and occupational diseases. With proper K3RS

implementation, hospitals can improve safety, work efficiency, productivity, and public trust in the quality of healthcare services.

4. CONCLUSION

Implications for Practice and Future Theory. Practical Implications: The results indicate the need to strengthen continuous OHS training, ensure appropriate workload distribution, and use experienced staff to support safer work practices. Theoretical Implications: This study reinforces that knowledge, training, workload, and experience are key predictors of safety behavior and supports further development of integrated models of OHS implementation in hospitals. Based on the results of research on the topic of the Relationship between Factors Influencing the Implementation of Occupational Safety and Health at Hospital X, there is a significant relationship between knowledge, training, workload, length of service, and the implementation of hospital OHS Service at Hospital X.

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