

## Research Article

## Factors Related to Unsafe Action in Nurses at Hikmah Hospital Makassar

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**Abstract:** Unsafe action are actions or behaviors that do not need to be done in doing work where these actions can increase the possibility of harm or injury if not changed. This study aims to determine the factors associated with unsafe actions on nurses at Makassar Hikmah Hospital. This type of research used in this study was observational using a cross sectional study design with a total of 76 samples. The results of this study are based on the chi-square statistical test between unsafe action and training of K3, workload, length of service, and length of work  $p = 0.001$ ,  $p=0.818$ ,  $p=0.884$ , and  $p=0.225$  with significance value  $p=0.005$ . It can be concluded that there is a significant relationship between unsafe action and K3 training, but there is no relationship between workload, work period, and length of work with unsafe action on nurses at Hikmah Hospital Makassar in 2019. Thus it is recommended to nurses to be able to increase knowledge about occupational health and safety in the company environment through training and to obey all regulations of the company to improve safety behavior and prevent unsafe actions or unsafe actions so as to reduce the number of work accidents.

**Keywords:** Unsafe action, K3, work.

## INTRODUCTION

The application of Occupational Safety and Health (K3) must be carried out consistently and continuously, in accordance with the Work Safety Act No.1 of 1970 and the Labor Law No. 13 of 2003 states that employers must protect workers / employees and the potential hazards they face. Occupational Safety and Health Management System, hereinafter referred to as SMK3, is part of the overall company management system in the context of controlling risks related to work activities in order to create a safe, efficient and productive workplace.

Application of Occupational Safety and Health Management System (SMK3) which is not optimal often triggers unapproved events such as accidents. Accidents in the workplace are generally caused by 2 (two) main things, namely unsafe actions and unsafe conditions. Some research results show that human factors play an important role in the emergence of work accidents. The results of the study stated that 80% -85% of work accidents are caused by negligence or human error (Depkes, 2004).

Based on data from the South Sulawesi Manpower Office, the number of work accidents in 2010 was 531 cases, in 2011 there were 501 cases, in 2012 it increased to 912 cases and in 2013 there were 632 cases (excluding cases not reported). Workers who have access to adequate occupational health services are around 5% -10% in developing countries, 20% - 50% of workers in industrialized countries. A study revealed that more than 80% of work accidents are caused by unsafe actions (Ismail, *et al.*, 2012).

In 2018 there was 1 work accident in the form of a needle pricked by a nurse in the operating room. The lack of awareness regarding the implementation of Occupational Safety and Health causes the poor recording of work accidents and occupational diseases suffered by workers in the hospital so that there are other possible but not recorded events. In addition, based on the results of preliminary observations with the interview method it was found that there were some nurses whose level of awareness of unsafe actions tended to be less. Based on this background, the researchers took the title "Factors related to unsafe actions on nurses at Makassar Hikmah Hospital in 2019".

Quick Response Code



Journal homepage:

<http://www.easpublisher.com/easjnm/>

Article History

Received: 15.11.2019

Accepted: 24.11.2019

Published: 07.12.2019

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**METHODOLOGY**

This type of research used in this research is observational using the Cross Sectional Study design, which is a study to study the dynamics of the correlation between cause and effect by approaching, observing or collecting data at once at one time (point

time approach). This research was conducted at Makassar Hikmah Hospital in 2019, and the study was conducted in June 2019. The population in this study were all employees of Makassar Hikmah Hospital in 2019 amounting to 214 people with a total of 76 nurses and using a total sampling method to nurses.

**RESULTS**

**Table 1. Frequency Distribution Based on Characteristics of Respondents in Makassar Hikmah Hospital in 2019**

Variable	n = 76	%
<b>Age</b>		
Old (>40 Years Old)	40	53,1
Young (≤40 Years Old)	36	7,2
<b>Last education</b>		
D3 / equivalent	59	77,6
S1 / equivalent	17	22,4
<b>Sex</b>		
Male	17	22,4
Female	59	77,6

Source: Primary Data, 2019

The results of the study at Makassar Hikmah Hospital based on the characteristics of the respondents found that respondents in this study were more female 77.6% compared to male 22.4%. Based on age, most

were aged > 40 years, i.e. 53.1%. Based on their most recent education, the majority of respondents with the last D3 education were 77.6% (Table 1).

**Table 2. Relationship of Independent Variables with Dependent Variables in Nurses at Makassar Hikmah Hospital in 2019**

Independent Variable	Unsafe Action						Statistical Test Result
	Unsafe		Safe		Total		
	n	%	n	%	n		
<b>K3 training</b>							
Less Good	27	56,2	21	43,8	48	100,0	<i>p</i> =0.001
Good	24	85,7	4	14,3	28	100,0	
<b>Workload</b>							
Weight	15	65,2	8	34,8	23	100,0	<i>p</i> =0.818
Light	36	67,9	17	32,1	53	100,0	
<b>Years of service</b>							
Long	18	64,3	10	35,7	28	100,0	<i>p</i> =0.884
New	33	68,8	15	31,2	48	100,0	
<b>Length of working</b>							
Qualify	20	58,8	14	41,2	34	100,0	<i>p</i> =0.225
Not eligible	31	73,8	11	26,2	48	100,0	

Source: Primary Data, 2019

Based on research conducted using the chi-square test, the results of data analysis regarding the relationship between OHS training and Unsafe Action obtained *p* = 0.001 (*p* < 0.05). Unsafe Action Obtained *p* = 0.818 (*p* > 0.05), this means that H0 is accepted and Ha is rejected, so it can be concluded that workload has no relationship with Unsafe Action. Then the value of *p* = 0.884 (*p* > 0.05) is obtained, this means that H0 is accepted and Ha is rejected, so it can be concluded that the working period has no relationship with Unsafe Action. The value of *p* = 0.225 (*p* > 0.05), this means that H0 is accepted and

Ha is rejected, so it can be concluded that the length of work has no relationship with Unsafe Action on nurses at the Hikmah Hospital in Makassar City (Table 2).

**DISCUSSION**

Unsafe Action on nurses at Makassar City Hikmah Hospital in this study was reviewed from the chance of an unsafe condition based on the results of previous observations and Unsafe Action assessment based on a questionnaire. Unsafe actions are actions or behaviors that do not need to be done in doing work

where the actions can increase the possibility of harm or injury if not changed (Suma'mur, 2014).

K3 training influences a person's likelihood of experiencing Unsafe Condition. In Domino's theory, it is explained that most work accidents experienced are caused by human factors. To prevent accidents caused by human factors, among others, it can be done by providing training to workers. K3 training is a training and effort aimed at ensuring the integrity and perfection of both the physical and spiritual workforce in particular and in humans in general, the work and culture towards a just and prosperous society (Mangkunegara, 2005). Based on statistical tests, the value of  $p = 0.01$  ( $p < 0.05$ ) means that there is a relationship between K3 training and the Unsafe Action incidents in nurses at the Hikmah Hospital in Makassar. The results of this study are in line with research conducted by Waoma (2018) which states that there is a significant relationship between OSH training and occupational accidents at the Nutrition Installation of RS X Purwodadi caused by unsafe working conditions.

A workforce has different abilities in relation to workload (Sama'mur, 1995). There are several types of workload definitions, the first workload is an activity carried out by the human body and the severity of the workload greatly affects energy consumption, secondly the workload is the burden received by workers to complete their work such as lifting, hoeing, running, carrying, rowing and others, the third is the physical and non-physical workload borne by workers to complete their work (Depkes, 2004). Based on statistical tests obtained  $p$  value = 0.818 ( $p > 0.05$ ) which means there is no relationship between workload and Unsafe Action incidents in nurses at the Hikmah Hospital in Makassar. This study is in line with research by Pratiwi (2012) which explains that there is no significant relationship between workload and unsafe actions with  $p = 0.203$ . The longer work period of a person can cause fatigue in the endurance of muscles and bones physically and psychologically, this is because the level of muscle endurance that is often used for work will decrease with the length of time someone works (Occupational Safety and Health Council, 2004; Kiernan, 2006; Barker & Nussbaum, 2011).

Based on statistical tests, the value of  $p = 0.884$  ( $p > 0.05$ ) means that there is no relationship between work period and Unsafe Action incidents for nurses at the Hikmah Hospital in Makassar. The results of this study are in line with research conducted by Istih *et al.*, (2017) which states that respondents who are mostly young and classified as short / junior work periods but found no difference between nurses with short work periods (<6 years) and years of service old (<10 years) who has had a work accident.

Based on Act No. 13 of 2003 concerning manpower, the Regulation on Manpower has been specifically regulated in Act No. 13 of 2003, article 77. Where, Article 77 paragraph 1, Law No. 13/2003 requires every employer to implement the provisions of hours work that is 40 (forty) hours in 1 (one) week. If it exceeds the stipulated working hours, it will cause work fatigue, health problems, illness and accidents due to work and workers' dissatisfaction with the work. Based on statistical tests, the value of  $p = 0.225$  ( $p > 0.05$ ) means that there is no relationship between the length of work and the Unsafe Action incidents in nurses at the Hikmah Hospital in Makassar. The results of this study are in line with research conducted by Bancin (2017) which states that based on the results of the analysis of the relationship of work duration factors to unsafe actions it can be seen that with the chi-square test at a 95% confidence level it turns out that the work fatigue factor variable has relationship with the unsafe action variable where the  $p$ -value of  $0.033 < \alpha = 0.05$  means that there is a significant relationship between the factors of work duration and Unsafe Action.

## CONCLUSION

Based on the results of research from the analysis of variables studied about factors related to unsafe actions (nurses at unsafe action) at Hikmah Makassar Hospital in 2019, it can be concluded that there is a relationship between OHS training with unsafe actions on nurses at Makassar Hikmah Hospital in 2019 with a value of  $p = 0.001$ . But there is no relationship between workload, work period, and length of work with unsafe actions (unsafe actions) on nurses at Hikmah Makassar Hospital in 2019 with their respective values  $p = 0.818$ ,  $p = 0.884$ , and  $p = 0.225$ . Thus, all workers are encouraged to be able to increase knowledge about work health and safety in the company environment through training and to obey all regulations from the company to improve safety behavior and prevent unsafe actions or actions that can reduce work accident rates and always use PPE that suitable when working.

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