

The Relationship Between Unsafe Action and Unsafe Condition with the Incident on Workers Accidents in Welding Shop, West Aceh

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Abstrak: Welding shop is a business place specializing in welding service for various types of metal in various ways ; Manually through electric welding, carbide, Argon, lathe, acetylene, or using the help of robotic or laser welding machines. The work accidents on worker in welding shop is often found. The research problem proposed is what factors are the risk factors for work accidents in welding shop of West Aceh Regency. The research design used cross-sectional method with person correlation analysis. The results of the study found a strong relationship between unsafe acts and work accidents on welding shop workers in West Aceh Regency. The P Value of the variable is $0.000 < 0.05$, it means there is a moderately strong relationship between unsafe conditions and work accidents for welding shop worker in West Aceh Regency, because the P Value of the variable is $0.023 < 0.05$. Suggestions for this research is the need to provide education and information about risk factors that can cause work accidents in welding shop workers in West Aceh district.

Keywords: Unsafe Action, Unsafe condition, Work Accident

INTRODUCTION

Informal sector is an informal business environment where job seekers are self-generated such as rice mills, and the informal sector recognizes its workers as casual workers. (Ramdan & Handoko, 2016).

Welding shop is a business place specializing in welding service for various types of metal in various ways ; whether it is manual through electric welding, carbide, Argon, lathe, acetylene, or using the help of robotic or laser welding machines (Hikmawan, 2016).

Other causes of accident risk are in the form of unsafe action and unsafe condition because unsafe action and unsafe condition are worker actions and conditions from the work environment that have the potential to increase the risk of work accidents in a company, both formal and informal. (Ratman, 2020).

The cause of accident risk is in the form of unsafe actions and unsafe conditions. Both are an act of workers and conditions of the work environment that allow the risk of work accidents in a company, both formal and informal (Ratman, 2020).

According to the International Labor Organization (ILO), globally 2.78 million workers die due to occupational accidents or diseases every year, while 374 million suffer from non-fatal work accidents.

Based on data obtained from the Employment Social Security Administration (BPJS) of Indonesia, it is found the number of work accidents is increase every year where in 2019 there were 114,235 work accident cases and in 2020 it increased to 177,161 work accident cases. (Work Accident Data, 2020)

Based on the preliminary survey conducted at welding shop in Meulaboh, it was found several cases of work accidents and the level of risk of minor work accidents include sprains, slips, and falling objects from a high place. Therefore, researchers are interested in conducting this research.

RESEARCH METHOD

The cross-sectional research design is a study to investigate the dynamics of the correlation between risk factors and effects, by means of an observational approach, or data collection. (BMJ, 2020)

The population in this study were all welding shop workers in West Aceh Regency as many as 235 workers. The sampling technique used purposive sampling, in which a sample is selected from a population by upholding certain criteria or considerations. In determining the number of samples in this study using the Lameshow formula, while in survey research using binomunal proportions. The sample in this study were 72 samples. (RizkaPisceliya&Mindayani, 2018).

RESULT

Table1. Correlation of Unsafe Action to the Work Accident

		UnsafeAction	Work Accidents	Degree of Relationship	
Unsafe Action	Pearson Corelation	1	0,761	Strong Correlation	There is correlation
	Pvalue		0,000		
	N	72	69		
Work Accidents	Pearson Corelation	0,761	1		
	Pvalue	0,000			
	N	72	69		

The correlation between unsafe action and work accidents based on Pearson calculations -0.761 with a very strong degree of correlation and P value 0.000 this is because a <0.05, then there is a rejection of Ho which means there is a relationship between unsafe action and the incidence of work accidents in welding workshops in West Aceh Regency

Table2. Correlation Unsafe Condition on Work Accidents

		Unsafe Condition	Work Accidents	Degree of Correlation	
Unsafe Condition	Pearson Corelation	1	0,542	Medium Correlation	There is correlation
	Pvalue		0,023		
	N	72	69		
Work Accidents	Pearson Corelation	0,542	1		
	Pvalue	0,023			
	N	72	69		

Source: Primary data, 2021

The correlation between unsafe conditions and work accidents based on Pearson calculations - 0.542 with a strong correlation degree and P value 0.023 this is because a <0.05 , then there is a rejection of H_0 which means there is a relationship between unsafe condition and the incidence of work accidents in welding shops, West Aceh.

DISCUSSION

The relationship between unsafe action and the incidence of work accidents at the welding workshop

This research is also in accordance with Rakhmawati's (2020) conducted on fishermen group workers which showed that unsafe action or unsafe behavior at work had a significant relationship with the incidence of work accidents after analyzing reviews from various journals regarding unsafe action with the incidence of work accidents to people who work as fishermen. (Rakhmawati, 2020)

Unsafe actions are triggered by the behavior of workers consciously and independently, while unsafe conditions are generally due to a system that is not available (non-available) or beyond the control of the worker. For example, when a worker is not provided with PPE while he is in a high risk area, then this is an unsafe condition. However, if PPE has been provided and the worker is reluctant to use it, then this is an unsafe act. In practice, we will find a combination of actions and unsafe conditions. This is what is called an accident event. (Wen et al., 2020)

This is in line with Domino's Theory, that the main cause of work accidents is the human factor or unsafe action, namely dangerous actions from workers triggered by various causes such as lack of knowledge and skills, inability to work normally, not functioning one part of the body due to invisible defects, fatigue and boredom, unsafe attitudes and behavior, confusion and stress because they do not understand new work procedures, have not mastered/skilled with new machine tools, decreased concentration of workers when doing work, worker indifference, low job satisfaction, as well as self-injurious attitudes. (Greer & Ksaibati, 2019)

The most important factor in working is complying with the regulations in the company where you work, both formal and informal companies by implementing a work safety culture, with the aim of protecting worker safety so that it can benefit a company such as increasing the company's productivity. (Khoshnava, et al., 2020).

The relationship between Unsafe Condition and the incidence of work accidents on CV. Rimo Tani

This study is also in accordance with Nisatin's (2020) research conducted in the tofu industry which showed that unsafe conditions had a significant relationship with the incidence of work accidents, $p=0.0043$, meaning <0.05 with a 9.3 times greater risk of work accidents to people who have unsafe conditions or unsafe conditions at work compared to people who are safe conditions or safe conditions at work. (Asilah&Yuantari, 2020).

The informal industry has a high risk of work accidents. Deaths caused by work accidents in the informal sector are more than workers in the formal sector, unsafe conditions that exist in the industry are one of the causes of accidents, examples include scattered items in the workplace, the amount of dust in the work area and lack of air ventilation in the workplace.(Zhang et al., 2016).

For all living beings, safety is very important. Safety is also something that is not cheap to make it happen. Each job has its own risks that can endanger the safety of other workers. Work safety itself is something that must always be considered by every party in the construction process, first by workers, especially jobs that do have a very high level of accident risk. For this reason, every human being must pay

attention to the attitude and condition of the project environment in order to minimize the risk of the accident itself. (Zolnikov, et al., 2021)

In the world of work at a company, there are many supporting aspects that support the running of a company, for example, employees, work equipment, work environment and others. These things need to be considered so that the achievement of goals in the company can run well. What we will discuss here is the problem of the work environment because the work environment is very influential on the state of the employees in a company. By paying attention to the work environment, it is hoped that it can increase enthusiasm at work. If employee morale increases, employee productivity will automatically increase. If this can go well then the achievement of the goals of a company will go well. (Abdillah, 2013)

CONCLUSION AND SUGGESTION

Based on the results in the welding workshop industry in West Aceh Regency, it can be concluded there is a relationship between unsafe acts, unsafe conditions, and the incidence of work accidents. It is hoped that there will be dissemination, information, and education regarding the risk factors for work accidents in the welding workshop of West Aceh Regency.

CONFLICT INTEREST

The author declares that the author has no affiliation involvement in any organization or entity with any financial or other equity interests in this article.

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