Relationship of Workers' OSH Knowledge and Attitude to Work Accidents in 31 Rice Grinding Industry in Kaway XVI District, Aceh Barat Regency

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Abstract

Risk is the chance of something happening that will have an impact on the goal. Risks are measured according to their likelihood and consequences. Consequences of injury and illness. And the severity of the damage or loss/injury. This study aims to analyze the factors of knowledge and Attitude of workers to the risk of work accidents in informal sector workers. The method used in this study is case-control by comparing groups of workers who have experienced work accidents with groups of workers who have experienced work accidents did not have a work accident. The results showed that there was a relationship between K3 knowledge factors and the risk of work accidents at 31 central rice mills where the P-value was 0.000 <0.05, and there was a relationship between the factors of workers' attitudes towards the risk of work accidents at 31 centers where the P-value 0.000<0.05. Suggestions from this study are the need for dissemination, education, and information about risk factors for work accidents in the 31 mill centers.

Keywords: Knowledge; Worker Attitudes; and Work Accidents

Introduction

Industrial development is growing day by day. Industrial development is currently increasing due to increasing science and technology in Indonesia. With advances in existing knowledge and technology, it can improve the welfare of people's lives (Octavariny et al., 2017). The industrial process at this time encourages industrial development in various sectors by applying existing technology following technological developments and various media or materials used. The development of this industry can have an impact on the workforce. Efforts can be made to reduce the risk of work accidents; it is necessary to implement occupational health and safety in the workplace (Tika & Widya, 2019).

The cause of the risk of work accidents can be in the form of knowledge of occupational safety and health from the workers themselves because knowledge is one of the important factors in motivating someone to act. A person's actions based on knowledge will be more durable than those without knowledge (Salsabila et al., 2020).

Data from the International Labor Organization (ILO) in 2013 that work in the world dies every second due to work accidents, on April 26, 2013, on the occasion of the World Occupational Health and Safety Day, states that the number of cases of work-related diseases is estimated at 160 million. Each year with approximately 2.02 million deaths annually. Population studies conducted by the ILO in 2005 estimated that 8% of deaths were due to cancer, 7.5% of cardiovascular and cerebrovascular diseases, 10% of Master of Public Health Sciences Development Planning Concentration of Health Development Planning of chronic respiratory diseases, and 100% of work-related pneumoconiosis (Stevanus, 2016).

Based on data in Indonesia obtained from the Employment Social Security Administration (BPJS), it was recorded that throughout 2020, there were 108,573 cases of work accidents, increasing to 108,573 cases compared to 2019, where there were 77,295 cases of work accidents in that year. increase from 2019 to 2020 (Aswar et al., 2016).
Work accidents at 31 rice mill centers in Kaway XVI district continue to increase every year, and the number of work accident cases, 2018 there were 40 cases, in 2019 there were 45 cases, and in 2020 there were 58 cases in 31 rice mill centers. According to this initial data and survey, the researchers researched the relationship between workers' knowledge and attitudes to the risk of work accidents at 31 central rice mills in Kaway XVI District, West Aceh Regency.

Methods

The type of research used is analytic observational with a case-control approach. Analytical observation is research that looks for the relationship between one variable and another. In this study, an analysis of the data was carried out; therefore, in analytical research, a hypothesis is always needed that must be formulated before the research begins. Case-control research design is an analytic study that involves how risk factors are studied used a retrospective approach. Case-control research can be used to assess how big the role of risk factors in disease incidence (cause-effect relationship) (BMJ, 2020).

In this study, it is said to be low if the value of the calculation of questions regarding knowledge and work attitudes is less than 5, and vice versa if the value of the questionnaire is more than 5, it can be said that the knowledge and attitude variables are high.

Results

Table 1. The relationship between knowledge and Attitude and the risk of work accidents

| Variable | Case | Control | P-value | OR |
|----------|------|---------|---------|----|
| Knowledge | | | | |
| Low | 54 | 93,1 | 3 | 2.6 | 0.000 | 508.5 |
| High | 4 | 6,9 | 113 | 97,4 | | 500 |
| Attitude | | | | |
| Low | 57 | 98,3 | 1 | 0,7 | | |
| High | 1 | 1,7 | 115 | 99,1 | 0,000 | 655 |
| Total | 58 | 100 | 116 | 100 | | |

The results of the study prove that there is a significant relationship between K3 knowledge and work accidents. This shows that workers whose knowledge of K3 is not good risk having a work accident 508.5 times greater than workers who have good knowledge of OSH.

The results of the study prove that there is a significant relationship between K3 knowledge and work accidents. The proportion of respondents with poor worker attitudes in the case group (98.3%) compared to the control group (0.7%) with P-value = 0.000, OR = 665. This shows that workers whose work attitude is not good have a risk of having a work accident 665 times greater than workers with good work attitudes.

Discussion

The relationship between knowledge and the risk of work accidents

The results of the OSH research on the incidence of work accidents in 31 central rice mills in Kaway XVI District, West Aceh Regency, as was done by Kalalo (2016) on a group of fishermen in Belang Village, Minahasa Regency, showed that K3 knowledge had a significant relationship with the incidence of work accidents (P-value = 0.001; OR = 1.70 this shows that workers who have OSH knowledge are less at risk of experiencing work accidents by 1.70 times compared to workers who have good OSH knowledge. (stevanus, 2016) This study is also following Handayani's research (2011) conducted on rattan artisans in the Lubuk Begalung sub-district, Padang city, showing that OSH knowledge has a significant relationship with the incidence of work accidents (P = 0.001) with a risk of 24.00 times greater the occurrence of work accidents in people whose knowledge of OSH is less good than workers whose knowledge of K3 is good. (Handayani et al., 2011)

Knowledge of occupational safety and health is information that can make a worker aware that there can be light and severe hazards in every workplace, including the risk of work accidents caused by unsafe human actions (unsafe action) by 80% and the rest due to unsafe conditions. Safe (unsafe condition). Generally, these unsafe acts are caused by a lack of knowledge of occupational safety and health, skills, and dangerous actions (Salsabila et al., 2020).

Workers who have high knowledge workers can see the dangers that can occur in the workplace, and these workers are aware of the risks that exist in the
workplace so that work accidents in the company can be avoided. Workers with high knowledge tend to avoid minor work accidents because they do not realize that minor accidents will result in more serious work accidents. If industrial workers have high knowledge, then they will act well and try to avoid work accidents. On the other hand, workers who have low knowledge will face the danger of not knowing what to expect. (Li et al., 2021)

**The relationship between knowledge and the risk of work accidents**

The results of research on work attitudes towards the incidence of work accidents at 31 central rice mills in the Kawai XVI sub-district, West Aceh Regency, are in line with research conducted by Aryanto (2016) on total E&P Indonesia workers showing that attitudes do not have a significant relationship with the incidence of work accidents (P-value = 1.0 means > 0.05), this indicates that workers with unfavorable attitudes have a significant relationship with the incidence of work accidents. (Aryanto et al., 2016) This study is also following Muharani's research (2019) conducted on Adolina palm oil production workers showing that workers' attitudes have no relationship, which is significant with the incidence of work accidents because the P-value > 0.05 (P = 0.575) means that there is no relationship between the Attitude of workers and the incidence of work accidents. The Attitude of workers is not has a significant relationship with the incidence of work accidents with unfavorable attitudes as much as 60%.56(Muharani & Dameria, 2019)

Attitude is the reaction of workers who are still closed to a stimulus or object. Workers' attitudes to workplace conditions, work accidents, and unsafe actions are important (Sirait, 2021). The experience of workers can influence the Attitude of previous workers in work carried out by workers, the influence of important co-workers, the influence of work safety culture, and media information. Therefore, the industry's effort to reduce accidents is to create a model by presenting several workers as models. which other workers can imitate. (Ahyanuriza et al., 2020)

Human Attitude towards safety is important in everyday life, especially in the work environment. A person's Attitude towards occupational health and safety in a company can be influenced by various factors such as field conditions or conditions of the work environment and work situation. Suppose workers are in a work environment where there is not much pressure and obstacles. In that case, attitudes can be expressed, and actual attitudes, both positive and negative, can be seen in workers in oil drilling companies. To find out the Attitude of workers towards work safety can be done cognitively, affectively, and conatively. This is to see a person's basic tendency to react consistently and consciously in avoiding and anticipating work accidents (Iqbal et al., 2020)

**Conclusion**

The provision of education, dissemination, and information regarding risk factors that can cause work accidents in the 31 rice milling industries is also expected. It is expected to establish a UKK post at the PUSKESMAS in Kaway XVI District workers in the informal center can be properly recorded.

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**Authors Contribution**

This research was completed with teamwork. The first author contributes as a drafter, data curation, data analysis, methodology, supervision. The second, third, and fourth authors contributed to the data analysis methodology. The fifth author contributes as a data curator, supervision. All writers play a role in visualizing, writing, and drafting.

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