

LITERATURE REVIEW: RELATIONSHIP BETWEEN OCCUPATIONAL HEALTH AND SAFETY KNOWLEDGE WITH WORK ACCIDENTS

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ABSTRACT

The role of occupational safety and health is crucial to support the productivity of worker performance. Good occupational safety and health knowledge can minimize workplace accidents. The study aimed to determine the relationship between the level of occupational safety and health knowledge and work accident. This research uses the literature study method. The libraries used are 3 articles from the official website, 2 books from Google Books, and 8 journals from Google Scholar with a range of publications for the last 10 years (2012-2022). This research was conducted by identifying previous studies related to the title, namely the relationship between knowledge of Occupational Safety and Health and work accidents. Researchers took several journals that stated a relationship between knowledge of occupational safety and health and work accidents. The conclusion is that there is a relationship between knowledge of occupational safety and health and work accidents. The advice is that it is necessary to do further research related to the factors that affect the ability of occupational safety and health about work accidents.

Keywords: *Knowledge, Occupational safety and health, Work Accidents.*

INTRODUCTION

According to Per 03/Men/1994 regarding the JAMSOSTEK Program, the definition of a work accident is an accident related to an employment relationship, including an illness arising from a working relationship as well as an accident that occurs on the way from home to work and back home via normal roads. This definition is stated in Chapter I Article 1 point 7 (Indonesia, Regulation of the Minister of Manpower of the Republic of Indonesia number PER-03/MEN, 1994)

The Social Security Administration for Manpower (BPJS) noted that the number of work accidents in Indonesia was 234,270 cases in 2021. This number increased by 5.65% from the previous year, with 221,740 cases. If you look at the trend, Indonesia's number of work accident cases has continued to grow in the last five years. Since 2017, the number of work accidents has been recorded at 123,040. The number increased by 40.94% to 173,415 cases in 2018. A year after, work accidents again increased by 5.43% to 182,835 cases (BPJS, 2021).

From the data for the last 5 years, it can be said that work accidents in Indonesia still occupy a very high number. Whereas long before that, the matter of Occupational Safety and Health has been regulated in the Law of the Republic of Indonesia number 1 of 1970 concerning Occupational Safety. Besides, there are rules regarding applying the Occupational Health and Safety Management System.

According to the Government Regulation of the Republic of Indonesia, number 50 of 2012 concerning the Implementation of Occupational Health and Safety Management Systems, the definition

of Occupational Safety and Health, abbreviated as OSH, is all activities to ensure and protect the safety and health of workers through efforts to prevent work accidents and occupational diseases. In the regulation, there is also an understanding of the Occupational Health and Safety Management System, which is part of the company's overall management system in the context of controlling risks related to working activities to create a safe, efficient, and productive workplace. The objective of the Safety Management System is to increase the effectiveness of planning, measurable, structured, and integrated occupational safety and health protection; prevent and reduce workplace accidents and occupational diseases by involving elements of management, workers/ laborers, and trade unions/ labor unions; as well as creating a safe, comfortable, and efficient workplace to encourage productivity (Indonesia, 2012)

With the Occupational Safety and Health regulations and the Occupational Safety and Health Management System, the number of work accidents should be reduced. On the other hand, the number of work accidents is increasing every year. This is the concern of the researcher why there are still many work accidents that occur.

The International Labor Organization (ILO) says that 3 factors cause work accidents: workers, work, and the environment (ILO, 2021). H.W. Heinrich introduced a work accident theory in 1931. According to Heinrich, 88% of accidents are caused by unsafe acts/actions from humans (unsafe acts), while the rest are caused by things that are not related to human error, i.e., 10% are caused by unsafe conditions.) and 2% due to God's destiny. Heinrich emphasized that errors or mistakes made by humans cause most accidents. According to him, unsafe actions and conditions will occur when humans make a mistake (HW. Heinrich, 1980).

The mistakes of humans or workers must come from their knowledge. Workers who experience errors in their actions or unsafe conditions can cause work accidents. That way, work accidents can be because workers have a low level of knowledge on the understanding of Occupational Safety and Health. Based on the description above, this study aims to determine the literature review on the relationship between knowledge of Occupational Safety and Health and work accidents.

METHOD

This research uses the literature study method. The libraries used are 3 articles from the official website, 2 books from Google Books, and 8 journals from Google Scholar with a range of publications for the last 10 years (2012-2022). These national journals have been accredited, with the most extended published year being 2012. This research was conducted by identifying previous studies related to the title, namely the relationship between knowledge of Occupational Safety and Health and work accidents.

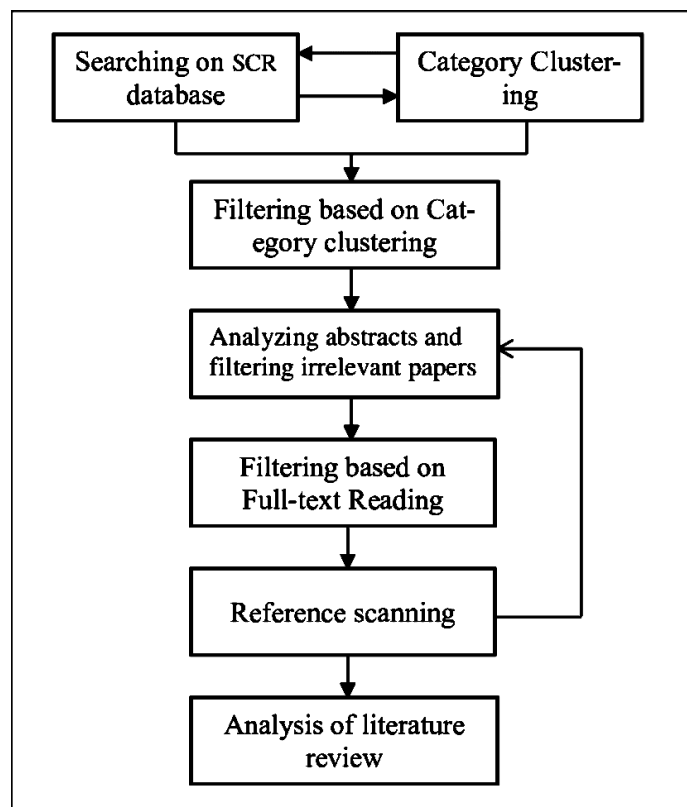


Figure 1. Flow Chart

RESULTS AND DISCUSSION

Each journal has been selected based on the criteria or according to the study's title; after that, a conclusion is made that provides information from several literature results. In several journals that have been reviewed, 9 journals conclude that there is a relationship between occupational safety and health knowledge and work accidents.

The issue of occupational safety and health does not seem to be a concern for workers and companies. This is evident from the work accident data, which has increased significantly yearly for the last 5 years. The purpose of implementing occupational safety and health is to minimize workplace accidents. Moreover, the existence of regulations on occupational safety and health and occupational safety and health management system can prevent financial losses from aspects of working conditions such as increased worker productivity.

Occupational safety and health are one form of effort to create a safe, healthy workplace free from environmental pollution to protect and be free from work accidents, which can increase work efficiency and productivity. Work accidents cause fatalities and material losses for workers and employers but can also disrupt the overall production process and damage the environment, which in turn will impact the wider community (Irzal, 2016).

Therefore, occupational safety and health must be applied in every industrial sector or company. This must consider the supporting factors so that implementing occupational safety and health can be carried

out correctly. One of the influencing factors is the knowledge of the workers themselves regarding the awareness of the importance of occupational safety and health in doing a job. Providing knowledge of occupational safety and health to workers is hoped that work accidents can be minimized.

The importance of occupational safety and health is shown in a study entitled "The Relationship of Knowledge and Participation of Occupational Safety and Health on Nurses with Occupational Accidents at Hospital X Yogyakarta," where Hospital X is a health institution that provides complete individual health services. Potential hazards in hospitals are infectious diseases, accidents (explosion, fire, electrical installation accidents, and other sources), radiation, chemicals, anesthetic gases, and psychosocial and ergonomic disorders. All these potential hazards threaten the lives of employees, patients, and visitors in the hospital environment. The results showed there was a significant relationship between nurses' knowledge of Occupational Safety and Health and the incidence of work accidents (p value=0.003) (Rifai, 2017).

In addition to the formal sector, Occupational Safety and Health is also very important to be applied in informal sector. Another study that shows a relationship between knowledge and occupational safety and health in informal sector belongs to Stevanus Yonathan Kalalo. Research with the title "The Relationship between Knowledge and Attitudes about Occupational safety and health and Occupational Accidents in Fishermen Groups in Belang Village, Belang District, Southeast Minahasa Regency" states that jobs that are included as dangerous include fishing, which is very vulnerable to work accidents, so that Occupational safety and health becomes right of workers. It shows a relationship between Occupational safety and health knowledge and work accidents in the fishermen group (p value= 0.000) (Stevanus Yonatan Kalalo, 2016).

Eko Maulana Syaputra, with research entitled "The Relationship of Occupational safety and health Knowledge and Motivation with Work Accidents for Production Employees of PT. Borneo Melintang Buana Export," explained there was a significant relationship between occupational safety and health knowledge and work accidents (p value=0.000). The study also presents the case of work accidents at PT. Borneo Melintang Buana Export has increased every year. Work accidents include eyes hit by glue, hands hit by rooter and rustic machines, hit by nails, traffic accidents, etc. In general, there are two causes of accidents: unsafe action (human factors) and unsafe conditions (environmental factors). Occupational safety, health knowledge, and motivation are several factors that can affect the occurrence of work accidents (Syaputra, 2017).

Edwina Rudyarti's research entitled "The Relationship of Knowledge of Occupational Safety and Health and Attitudes to Use Personal Protective Equipment with Occupational Accidents in Batik Knife Craftsmen at PT. X" explains that knowledge of occupational safety and health contributes 16% and attitudes to the use of personal protective equipment contribute 22% to work accidents. In summary, there is a significant relationship between knowledge of occupational safety and health and the attitude

of using personal protective equipment to the incidence of work accidents at batik knife craftsmen at PT. X (Rudyarti, 2017).

Another study that occupational safety and health are also essential to be applied to the informal sector belongs to Siti Zahara with the title "The Relationship of Occupational Safety and Health Knowledge with Work Accidents at Welders in Medan City District in 2018". It explains that there is a relationship between occupational safety and health knowledge and work accidents in Welder in Medan Kota District in 2018 (p value=0.009). It is recommended that welding workshop owners can provide Personal Protective Equipment (PPE) and make regulations and sanctions if workers do not use the PPE. It is hoped that the welding workshop owner can supervise while working, the welder will further increase knowledge about the sources of danger in the workplace and increase awareness about the importance of using PPE so that it can avoid Work Accidents and Occupational Diseases (Zahara, 2018).

Another study in the informal sector entitled "The Relationship between Knowledge of Occupational Safety and Health and Unsafe Actions with Occupational Accidents in Fishermen Groups in Tambala Village" explained there was a relationship between knowledge of occupational safety and health with occupational accidents in fishermen groups (p value=0.043). The knowledge is essential in shaping actions. Lack of knowledge about occupational safety and health will lead to unsafe actions that can lead to work accidents (Yunifi C. Terok, 2020).

In the next study entitled "The Relationship of Knowledge and Attitude with Prevention of Work Accidents in Domestic Waste Transport Officers at TPA Cahaya Kencana," it was explained there was a significant relationship between knowledge (p value=0.003) and attitude (p value=0.001) with prevention efforts. Work accidents on domestic waste collectors at the Cahaya Kencana TPA, Padang Panjang Village, Karang Intan District, Banjar Regency in 2020 (Fauzan, 2021).

Furthermore, the research entitled "The Relationship of Knowledge with Occupational Accidents in Traditional Divers on Derawan Island" explains that there is a relationship between knowledge and work accidents on divers on Derawan Island in 2020 with a p-value of 0.000 (Febriyanto, 2021).

CONCLUSIONS AND SUGGESTIONS

Of the 8 journals studied, showed there is a relationship between occupational health and safety knowledge with work accidents. Work accidents can be prevented by various efforts, which is increasing workers' knowledge of Occupational safety and health. Efforts are being made to improve workers' knowledge of Occupational safety and health, namely safety talk, Occupational safety, and health education, and regular Occupational safety and health training, and it is necessary to prepare regulations to support Occupational safety and health implementation for example, such as the Occupational Health and Safety Management System. This knowledge of Occupational safety and

health needs to be instilled in workers because it is hoped that workers will realize how important it is to carry out Occupational safety and health in every job. That way, workers can be safer at work without making mistakes that cause work accidents. Suggestions for further research are that it is necessary to research things that can affect the level of knowledge of Occupational safety and health workers.

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