



IMPLEMENTATION OF A COMPREHENSIVE BURN MANAGEMENT SYSTEM IN INDUSTRIAL ACTIVITIES (MANAGEMENT AND PREVENTION)

Oleh

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Abstract: Background: Burns are a form of trauma that occurs as a result of human activities in the household, industry, traffic accidents, and natural disasters. The most vulnerable burn sufferers are women because their main role in the family is that many are in contact with fire and electricity such as cooking and ironing. Improper handling of burns can have an impact that will harm the patient. The purpose of this activity is to increase knowledge about burn injuries, as well as appropriate emergency first aid for burns to PT. KP employees. Methods: this program is given with the lecture method, and the presentation of the material uses a laptop audio-visual tool and online media in the form of zoom. After the presentation of the material, it was continued with the screening of a first aid education video for burn injuries, after the video playback was continued with a simulation/demonstration of the procedures for first aid for burn injuries including introducing the types of materials and drugs recommended for first aid burns. The session ends with a question and answer session and evaluation. Results: Participants understood the general description of burns and their dangers and participants were able to understand proper first aid treatment. Participants can answer questions from the presenters and discuss the material presented. Conclusion: there is an increase in knowledge and understanding of the dangers of burns and first aid treatment for burns.

INTRODUCTION

Indonesia's national development is an effort to equalize development in all areas of life



that is carried out comprehensively and continuously, including the field of Occupational Safety and Health.[1]. Health development aims to provide awareness to everyone to strive for a healthy life in order to create a healthy society. As described in Law No. 36 of 2009 concerning Health Article 162 which reads: Environmental health efforts are aimed at realizing a healthy environmental quality, both physical, chemical, biological, and social, which allows everyone to achieve the highest degree of health. Furthermore, in Article 162 paragraph (2), what is meant by a healthy environment includes a residential environment, workplace, recreation area, as well as public places and facilities.[2]

Work safety issues in Indonesia have long received attention and support from the government since the enactment of the Work Safety Law Number 1 of 1970.[3], [4] Even since 1993, work safety has been improved to achieve zero accidents in every production process [5]–[7]. Since four years ago, the Indonesian government has designated January as the month of Occupational Safety and Health (K3) and is commemorated every 12 January.

A strong factor that often causes work accidents and illnesses to workers/workers who have been working in the company is the weak implementation of Occupational Safety and Health standards in the company. As a result of the weak implementation of Occupational Safety and Health in the company, it also has an impact on the social environment of the surrounding community. Among workers, many workers experience work accidents due to unsafe actions at work, the cause is the lack of knowledge of workers about Occupational Safety and Health. For this reason, the only way to reduce work accidents and health problems that have an adverse impact on workers/workers in the company is that Occupational Safety and Health standards must be implemented. [8]–[13]

Work accidents related to hot objects can cause burns to parts of the human body that are in direct contact with these objects. There are several jobs that are very vulnerable to burn injuries. Burns can injure workers physically and will also affect the psychology of workers with a sense of trauma that occurs in everyday life. Accidents like this can occur due to human error or due to work equipment that does not meet work safety standards. The mass burn accident that occurred was classified as a serious epidemic case in recent years. Burns are the third cause of death due to accidents, therefore burns are an emergency. [14]–[16]

Burns are a serious problem in world health, especially in developing countries. Burns are one of the incidents that often occur in society. Approximately 2.5 million people are burned in the United States annually from this group 200,000 patients require outpatient treatment and 100,000 patients are hospitalized, about 12,000 die annually. Based on the Indonesian Basic Health Research (RISKESDAS) 2013, the prevalence of burns in Indonesia is 0.7%. The highest prevalence occurs at the age of 1-4 years. [17]

Research studies conducted in 5 tofu industries where observations and interviews with industrial workers were carried out were about 38 respondents, where from 38 respondents said between 75%-80% of tofu workers experienced minor burns every day, and about 15% suffered injuries. medium or heavy fuel, which is rarely the case in this industrial area.

Knowledge of the first treatment when a work accident occurs for workers is very important to avoid the harmful effects of the work accident, and avoid death. Therefore, workers should be provided with knowledge of first aid for workers in all types of industries, be it large industries to industries classified as household or small industries. [15], [18]–[21]



Based on research, the acceleration of burn wound healing can be done by giving antibiotics and proper treatment, namely by draining the burn with running water. However, many paradigms are not appropriate for wound management, resulting in more severe burns, burns can also cause psychological problems, namely emotional distress (trauma) and severe psychological damage due to burns and scars. Accidents occur on average because of human error by workers and the lack of agility in handling the first burn.[22]

In addition to improving standard work tools for work safety. What is also very important is the increase in employee knowledge of the first handling of work accidents which is expected to minimize and even prevent the dangers of these work accidents. Occupational health aims to improve the quality of life of the workforce through various efforts to improve health, prevent health problems or diseases that may be experienced by workers due to work or workplace.[9], [23]–[26]

Based on the above background, the authors are interested in conducting education or counseling for factory workers regarding the management of burns and their comprehensive prevention measures.

METHODS

Implementation of community service activities entitled "Implementation of a Comprehensive Burn Management System in Industrial Activities (Management and Prevention)" in collaboration with various partners, while partners consist of PT KP as an acceptor and PT. Sukma Skin Treatment, Tarumanagara University, and PT. Citra Sehat Khatulistiwa as the preceptor of this activity. This activity can be carried out based on the results of coordination with the industry, who wants to provide employees with basic knowledge of burn injuries in the hope that work behavior is embedded in accordance with safety procedures from an early age so that they can protect themselves and those around the environment. work. All of these activities are carried out through an online method via the Zoom application due to the Covid-19 pandemic

This activity uses a training concept, where participants not only receive a theoretical explanation but are also accompanied by a simulated example of handling burns in the work environment that is shown visually to the threatening hazards. So that the trainees have an overview of the real conditions and are able to practice it. To carry out these activities, several methods were used in this outreach activity, while the methods consisted of:

1. Lecture.
2. Discussion (Question and Answer). The question and answer method is very important for the trainees, both when receiving an explanation about the procedure for treating burns. This method allows participants to gain as much knowledge as possible about the application of burn treatment, including the obstacles faced by workers and companies.
3. Evaluation Evaluation is very important given to the participants at the end of the activity, the evaluation is carried out through the interview test stage to the activity participants. The evaluation stage is carried out to find out to what extent the participants can understand the importance of implementing and implementing K3 in the work environment.

RESULT



The implementation of these activities includes outreach activities and program coordination, briefing on the importance of activities and education related to emergency problems in burn injuries. The Implementing Team provides an explanation of the aims and objectives of carrying out the activity as well as the benefits for participants by holding the activity.

Directions regarding the implementation of this activity, in general, include preparation, implementation, and evaluation which will be held on Friday, April 8, 2022, starting at 10 am on Zoom media. In the implementation of this briefing, the participants were quite enthusiastic in listening to the material and conducting discussions.

Regarding the knowledge of burns, at the beginning before the presentation of the material, there were still many participants who did not know the problems surrounding burns, such as the causes, types of burns and the degree of burns to the severity of burns which can lead to death. Likewise with first aid for this injury, many said that the procedure was not right after their presentation of the material from the several methods that would be explained, none of the participants knew about proper help. After the presentation of the material and the video showing was over, participants could understand more about burns and proper first aid treatment. Participants can answer the speaker's questions and discuss the material presented. An overview of the evaluation of activities can be seen in table 1 below:

Table 1. Activity Evaluation

No	Evaluation Criteria	Indicator	Reference	Implementation
1	The success of efforts to increase knowledge of training participants on the dangers of burn injuries and emergency first aid for burns	Participants understand the general description of the dangers of burn injuries, know the agents/sources that cause burns, and know the right first aid for burn injuries.	<ul style="list-style-type: none"> • Participants gave a good response to the implementation of counseling activities. • Participants want to take part in the activity. • Participants want to demonstrate the management of first aid for burn injuries • Active participants in the question and answer session. 	Conducted during activities to increase knowledge of PT.KP industrial workers on the dangers of burn injury and emergency first aid for burns

CONCLUSION

Efforts to increase knowledge of the dangers of burns and First Aid in Work Accidents - Burns Emergency of PT KP employees can increase knowledge about the dangers of burns, including knowledge of the definition, causative agent, classification and degree of burns, signs of burns. Improving knowledge and skills of first aid management methods in work accidents, especially appropriate burns.

Seeing the support and good response from the management of PT KP employees and members, it is necessary to hold other health education, which concerns health problems that



are experienced by many members because the majority of members are elderly.

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