TRAINING FOR FIRE DISASTER PREPARATION AND INITIAL MANAGEMENT OF FIRE WOUND (A CASE STUDY AT UNIVERSITAS JENDRAL ACHMAD YANI)

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Abstract

The fire disaster preparedness training program aims to increase knowledge and abilities regarding fire alert systems so that it is hoped that the right attitude will be in the effort to save oneself in the event of a disaster at the campus of Universitas Jenderal Achmad Yani (UNJANI). The methods used in this program are lectures, practice/implementation, role-playing, simulation, mentoring, focus group discussions (FGD), and evaluation with the support of digital technology in the context of making disaster mitigation learning materials. The solutions are training on fire preparedness; provision of tools, facilities, and infrastructure for danger signs and instructions for evacuation and rescue in the event of a fire disaster, providing educational media for campus residents about fire alertness; burn early management training.

Keywords: Fire disaster alert; Early treatment of burns.

Introduction

Fire can lead to disaster because it can destroy all property and cause many casualties. Ramli (2010) explains the definition of a disaster based on NFPA 1600, which is an event where available resources, personal or material, cannot control an extraordinary event that can threaten lives, physical resources, and the environment. The causes of fire are generally divided into two parts, namely:

Human factor. Some fires are caused by people who do not care about safety and fire hazards. Example: smoking anywhere (including while lying down or near combustible materials); use or damage electrical installations, connection improperly; or replace the fuse with a wire.

Technical factors. For example, the condition of old or non-standard electrical installations, unsafe cooking utensils such as leaky gas pipes or cylinders, faulty stoves or damaged electrical appliances, and placement of flammable materials with sources of ignition or heat.

According to the Decree of the Minister of Public Works No. 10 / KPTS / 2000, an active protection system is a fire protection system carried out using equipment that can work automatically or manually, which can be used by residents firefighters in carrying out extinguishing operations. This active protection system includes fire detectors, fire alarm; sprinkler; yard hydrant; building hydrants, and fire extinguishers. Furthermore, there is also a passive protection system as a means of self-rescue in an emergency used by building occupants. This passive protection system includes emergency egress, corridor; emergency door; emergency response; exit signs; emergency lighting, and gathering areas. According to the regulation of the Minister of Public Works No.26 /PRT/M/2008, the purpose of a passive fire protection system is to protect buildings from collapsing simultaneously due to fire, minimizing fire intensity, and ensuring the building's continued functions while remaining safe.

This activity aims to detect and disseminate fire emergency response management systems and build fire prevention and control systems at UNJANI. Based on the results of direct observation, the problems faced related to the availability of a fire emergency response system at UNJANI are as follows:
• The campus environment is good, clean, and neatly arranged with greenery and good air circulation, but most of the buildings are not equipped with active or passive protection systems in the context of rescue in the event of a fire disaster
• The unavailability of a fire disaster management module and socialization media for campus staff in increasing knowledge for preparedness in a fire disaster.
• The campus residents' lack of knowledge, especially the teaching staff, education staff, and supporters in fire disaster preparedness.

This research is expected to be used as input to increase knowledge and skills in campus vigilance as a campus prototype for fire disaster preparedness.

Literature Review

Martin (2014) states that training is a way to help someone display their best abilities, providing opportunities to learn through a process of discovery, discussion, transfer of experiences, and at the same time increasing skills, knowledge, motivation, and self-confidence. Meanwhile, Hamalik (2000) explains that training is a series of process activities carried out deliberately and planned to provide material to participants, carried out by professionals in training in specific fields of work, and used to increase the

effectiveness and productivity of an organization. Meanwhile, according to Broad and Newstrom (1992), training is a compelling effort made by trainers about one's job to increase knowledge and skills both at work and outside of work.

Training is also a systematic process to develop the knowledge, attitudes, and skills needed to carry out their duties. It is expected to influence work performance, both the person concerned and the workplace organization (Depkes RI, 2006). Kirkpartick (1994) also defines training to increase knowledge, change behavior and develop skills.

Strauss and Sayles (Notoatmodjo, 1989) say that the objectives of implementing education and training include changing, growing, and developing attitudes, feelings, and behavior (knowledge, attitudes, and skills/behavior). Meanwhile, Meheut (2004) states that the purpose of training is to assist employees in:

1. Learn and acquire new skills;
2. Maintaining and improving the skills already mastered;
3. Encourage new employees to learn and develop;
4. Practice in the workplace the things that have been learned and obtained;
5. Personal development of workers;
6. Developing institutional effectiveness; and
7. Motivate workers to continue learning and developing.

Research Method

Planning, implementing, and evaluating the socialization program for fire disaster preparedness training and early handling of burns for UNJANI residents involves policymakers on campus such as the Chancellor / Vice-Chancellor, the Dean. He is planned to be a prototype for the development and guidance of a fire alert system. Priority issues handled in this program were compiled by a team of proposers and faculty leaders. The implementation of the coaching program will be carried out from August to October 2020. It will be evaluated in the next several periods involving lecturers and students of the Faculty of Medicine. Lecturers and students of the Faculty of Medicine conduct training for several educators, education staff, assistants, and security forces in the UNJANI campus environment. Lecturers and students assist when mentoring work program development, making manuals and pocketbooks, and conducting program evaluations. The socialization material was given by screening films prepared by faculty and students of the Faculty of Medicine.

The mentoring activities will be carried out routinely by doctors and students of the Medical Faculty. With the existence of an annual activity program, manuals, pocket books, adequate facilities, and activity and training materials that have been provided, it is hoped that this training program can continue sustainably and comprehensively on the UNJANI campus. This training activity is carried out with the following methods:

Table 1. Problems, Solutions, and Training Methods for The Fire Disaster Preparedness System

No	Problems	Solutions	Methods
1	Some buildings are not equipped with active and passive protection systems for fire protection	Fulfillment of active and passive protection systems for fire protection in all buildings	Detection and submission of compliance with the availability of active and passive protection systems for fire protection to related parties in terms of: • The availability of a hydrant or fire extinguisher on each floor of the building • Availability of a gathering place for the evacuation process • Availability of evacuation routes on each floor of the building
2	There are no educational facilities for campus residents on disaster alertness and preparedness, especially fire	Development of modules on fire disaster mitigation systems	• Focus Group Discussion • Making socialization media in the form of posters or x-banner
3.	The lack of knowledge of campus residents about fire disaster preparedness systems and burns management	• Disseminating the importance of disaster mitigation systems in the campus environment • Fire disaster mitigation training • Initial burn management training	• Socialization • Screening • Practice and simulation of fire preparedness and burn management

Result and Discussion

Availability of fire disaster facilities

Most of the respondents stated that UNJANI had fairly good fire disaster facilities. Overview of MSMEs in Sukoharjo Regency

Table 2. Availability of Fire Disaster Facilities

Availability	F	%
Good	20	50%
Fair	14	35%
Less	6	15%
TOTAL	40	100%

The indicator for the availability of facilities is the availability of active and passive fire handling facilities in the work unit. The means used as an indicator is the availability of an active fire hydrant. From the research results, it is known that the hydrant availability is only available in the new building, while the old building is not available. However, the old building has provided a fire extinguisher. Likewise, passive fire tools (namely smoke detectors, sprinklers, and alarms) are only available in new buildings, such as the Hindarto Joesman Building, the Psychology Building, and the FISIP Building. Other passive fire tools (such as gathering place signs, evacuation routes, emergency stairs) are also available in only a few buildings. This is an important note to increase the availability of fire handling facilities evenly.

Knowledge and Skills regarding Fire and Burns Disaster Management

The educational process through lectures, discussions, and visual media shows satisfactory results. This can be seen from the results of the pre-test and post-test evaluations conducted by the instructors.
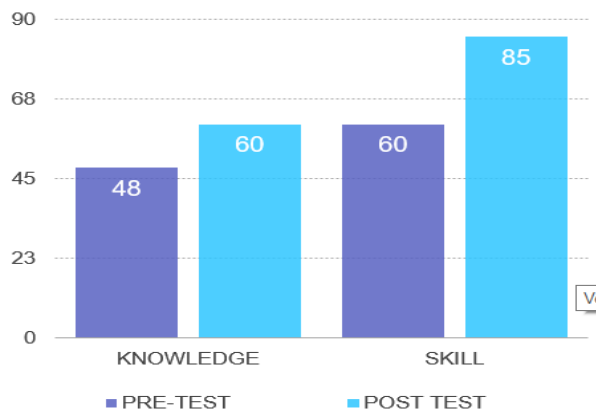
Figure 1. Average Value Of Knowledge And Skills For Fire Disaster Management

Meanwhile, the mean scores for knowledge and skills in the early treatment of burns are as follows:
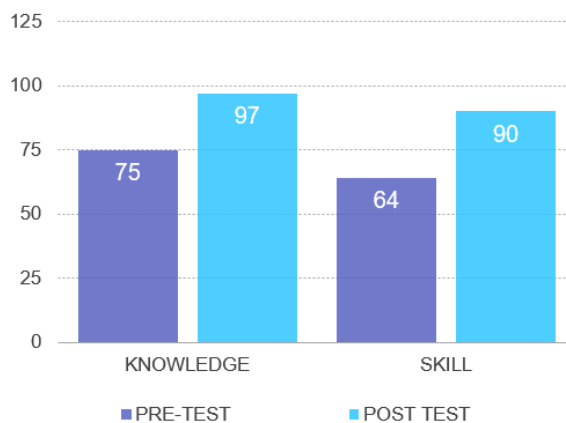
Figure 2. Average Value Of Knowledge And Skills For Early Burns Management

To achieve this, it is inseparable from supporting factors such as apt sources, the availability of adequate training facilities, and training materials. However, socialization and training efforts need to be carried out

regularly so that campus residents have adequate knowledge and skills related to fire disaster preparedness and early handling of burns.

Conclusion

Most of the buildings in UNJANI already have fire disaster management facilities and infrastructure, both active and passive countermeasures. However, this needs to be improved in terms of quantity and suitability of the latest standards. Furthermore, this training has increased the knowledge and skills of the UNJANI residents in fire disaster management and early handling of burns.

Advanced training on fire preparedness can be carried out to improve the UNJANI academic community's ability in fire disaster preparedness. The training is carried out in stages for all campus residents. Improvement of facilities and infrastructure related to fire alertness can also be carried out by adding danger signs and instructions for evacuation and rescue in a fire disaster. The provision of educational media on fire preparedness can also be made to raise awareness and handle fires. Education can be conveyed through the sticking of posters or X-banners at strategic places on campus. Furthermore, pre-treatment training for burns can also be carried out to improve all campus residents' abilities. This also needs to be done to evaluate the initial treatment of burns before being referred to the nearest health facility.

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