

## Factors Associated with Fire Preparedness of UPTD Employees at the Kenali Besar Community Health Center

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### ABSTRACT

Fire preparedness is an emergency response effort to the danger of fire. Low fire preparedness can result in large losses from fire incidents. This research aims to determine the factors related to fire preparedness among employees at the Kenali Besar Community Health Center. This research is a quantitative study with a cross-sectional design. Carried out in February 2024 with a population of 63 employees. Samples were taken using the total sampling technique. Research analysis uses the chi-square test. The results of statistical tests show that there is a relationship between knowledge and fire preparedness ( $p= 0.007$ ) and infrastructure and fire preparedness ( $p= 0.009$ ). It was concluded that the factors related to preparedness among Kenali Besar Community Health Center employees were knowledge and infrastructure. There is a need to increase knowledge and infrastructure as well as carry out regular training and supervision for community health centers.

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## **INTRODUCTION**

Based on a survey of the 1995 Japanese Earthquake, Great Hanshin Awaji, regarding factors influencing survivors, as many as 35% of victims saved themselves; 31.9% of victims were rescued by their families; 28.1% of victims were rescued by victims/neighbors; 2.6% of victims were rescued by passersby; 1.70% were rescued by the SAR Team and 0.90% were others (Supartini, 2017). This shows that the most determining factor in saving oneself from a disaster is one's readiness.

Preparedness is something that is done before a disaster and is a measure designed to increase the capacity for emergency action to ensure the protection of life and property, and control disaster damage and disruption (Adeleye, 2020; Yari et al., 2021). According to Law Number 24 of 2007 concerning Disaster Management, preparedness is also a series of appropriate steps taken to reduce or minimize disasters in an organized manner (Law of the Republic of Indonesia Number 24 of 2007 concerning Disaster Management, 2007). Preparedness shows the level of effectiveness of a response to a disaster.

Hospital and health center buildings are public facilities that can be accessed by people with high levels of mobility and activity, so they have a high risk of fire due to the use of chemicals and electrical equipment (Mareta & Hidayat, 2020). Health services at community health centers must prioritize the safety and security of patients, staff, and visitors. At a minimum, community health centers need to have security functions in the areas of ventilation, electrical installations, lighting, sanitation, noise control, fire protection, and lightning safety (Regulation of the Minister of Health of the Republic of Indonesia Number 75 of 2014 concerning Public Health Centers, 2014).

In Husni et al's research regarding the fire preparedness of hospital clinic students, it was found that 68.4% of students had a good perception of infrastructure and 80.3% of students had a high attitude. In this study, information regarding clinical students' preparedness for fires in hospitals was not yet available (TR et al., 2021). Based on research by Salmawati et al., knowledge and attitudes are not related to preparedness, and actions are related to preparedness (Salmawati et al., 2022).

Based on data from the Jambi City Fire and Rescue Service, as many as 50 fire incidents in 2021 and 66 fire incidents in 2022 occurred in Jambi City (Jambi City Fire and Rescue Service, 2022; Jambi City Fire and Rescue Service, 2021). In 2021 and 2022, Alam Barajo District will always be in the second-highest ranking for fire incidents in the city of Jambi. Based on data from outreach activities from the Jambi City Fire and Rescue Service, Kenali Besar Subdistrict is a location where fire hazard education has never been conducted by the Jambi City Fire and Rescue Service (Jambi City Fire and Rescue Service, 2022).

Based on an interview with the person in charge of K3 at the Kenali Besar Community Health Center, there has never been a fire simulation or training and the schedule for the person in charge of disasters has not been structured. Hazard risk assessments and planning procedures for handling emergency conditions have not been prepared so employee knowledge about fire is not optimal. Facilities and infrastructure such as APARs also do not pay attention to the correct positioning of the APARs. To check the condition, the

person in charge, facilities, and infrastructure have not been scheduled and carried out by officers. Based on the author's experience while at this health center, the electricity sometimes went out due to electrical installation problems which were prone to short circuits. The potential for fire at the Kenali Besar Health Center is greater because the location between the warehouse and the health center laboratory is relatively close, high-pressure gas cylinders are used and various flammable liquids such as alcohol and other chemicals are stored. Apart from that, based on observations, the Kenali Besar Community Health Center has many electronic devices such as refrigerators, printers, computers, speakers, laboratory equipment, and other health equipment.

Based on the problems above, researchers are interested in conducting research on "Factors Related to Fire Preparedness of UPTD Employees at the Kenali Besar Community Health Center".

## **LITERATURE REVIEW**

### ***Fire***

A fire is a flame that cannot be controlled in a place such as a building, house/settlement, factory, market, etc. which has the potential to cause casualties and result in losses (National Disaster Management Agency, 2023; Sari & Sukwika, 2020).

According to the National Fire Protection Association (an international organization in the field of fire protection), fire involves three main elements, namely something that will burn (fuel), enough to make the fuel burn (heat), and oxygen (air)(National Fire Protection Association, n.d.).

### ***Unsafe Action***

Unsafe action or unsafe action is one of the causes of work accidents which is a dangerous action caused by workers (human factors) that makes it possible for accidents to occur to the workers themselves or other people. Heinrich stated that most accidents were caused by several factors such as unsafe actions. The background to unsafe action includes internal factors such as (Irzal, 2016; Salami, 2022):

### ***Unsafe Condition***

Unsafe condition is the term unsafe condition, namely a condition of the environment (machinery, equipment, materials, workplace, work process, and nature of work) that is unsafe or dangerous. The environment in question can be interpreted as the physical environment, provision of facilities, ineffective protective equipment, hazardous materials, workers' experience before work, relations between workers, work organization arrangements, economic and political conditions, and inadequate warning sign systems for dangers such as fire (Sultan, 2020).

### ***Preparedness***

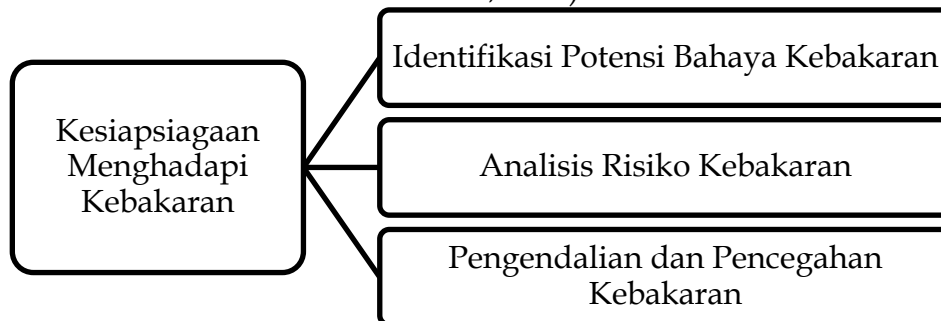
Preparedness is a series of activities carried out to anticipate disasters through organization and appropriate and effective steps (Yanuarto et al.,

2019). Five parameters influence preparedness in facing disasters according to LIPI-UNESCO/ISDR, namely (LIPI-UNESCO/ISDR, n.d.):

1. Knowledge. Knowledge about fire can influence a person's attitude and concern to remain ready and alert in anticipating a fire disaster.
2. Policies and Guidelines, are concepts and principles that serve as guidelines, ways of acting and the basis for plans for implementing fire preparedness.
3. An Emergency Response Plan is a written set of procedures for dealing with emergencies to minimize the impact of the event and facilitate recovery from the event.
4. Disaster warning is an activity carried out to notify the wider community that a disaster will occur. This activity is carried out by providing warning signs and distributing information so that the community can act appropriately to respond to disasters.
5. Resource Mobilization. The resources in question include funding capacity and the availability of infrastructure that supports preparedness such as evacuation signs and training.

### **Health Care Facility Fire Preparedness**

To prevent fires in Health Service Facilities, the Indonesian government has made related regulations, namely Regulation of the Minister of Health of the Republic of Indonesia Number 52 of 2018 concerning Occupational Safety and Health in Health Service Facilities (Regulation of the Minister of Health of the Republic of Indonesia Number 52 of 2018 concerning Occupational Safety and Health in Health Service Facilities, 2018).



**Figure 1. Fire Prevention in Health Care Facilities**

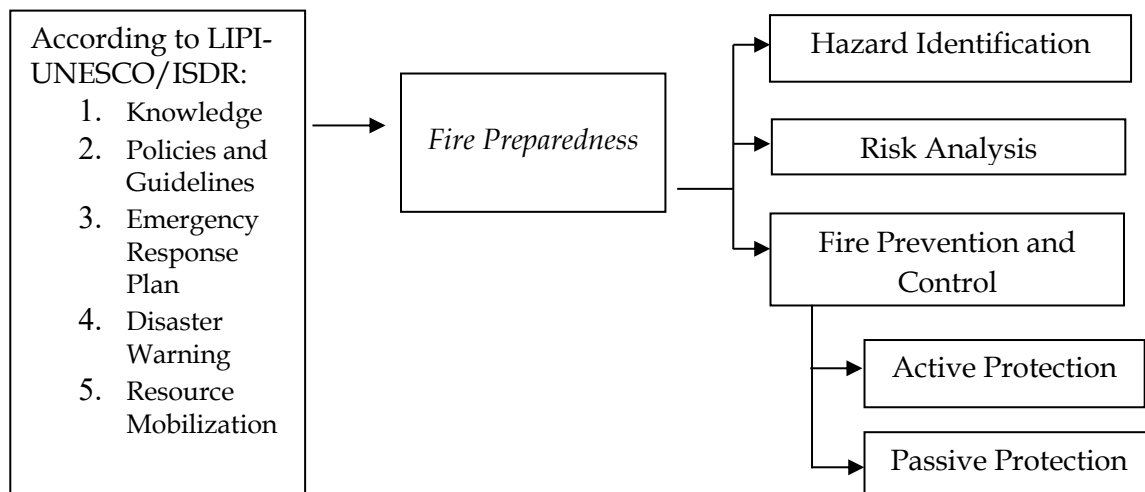
Source:: Peraturan Menteri Kesehatan Republik Indonesia Nomor 52 tahun 2018

1. Identify Potential Fire Hazards. This includes assessing the likelihood and severity of fire hazards that might cause a fire emergency. Hazard identification is a step taken in a structured and systematic manner to determine fire hazards at the beginning of the risk assessment process.
2. Fire risk analysis is an assessment of the disasters that are most likely to occur (Regulation of the Minister of Health of the Republic of Indonesia Number 52 of 2018 concerning Occupational Safety and Health in Health Service Facilities, 2018). Risk analysis shows that the conditions of an area or community can increase the community's vulnerability to disasters. The greater the vulnerability of an area, the greater the risk of disaster in that area.
3. Control and Prevention of Fire Risk in Health Service Facilities. Things that can be done to control emergency or disaster conditions. including

compiling a disaster emergency response team, technical instructions for disaster emergency response and standard operating procedures (SOP).

**Theoretical framework**

Based on the description above and to make it easier to understand this research, the theoretical framework of this research can be described as follows:

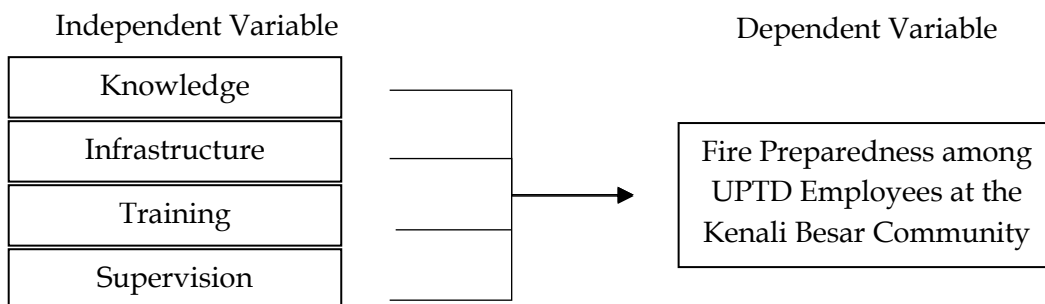


**Figure 2. Theoretical Framework**

Source: Modifikasi Kerangka Teori LIPI-UNESCO/ISDR dan PMK RI Nomor 52 tahun 2018 Tentang K3 Fasyankes(LIPI-UNESCO/ISDR, n.d.; Peraturan Menteri Kesehatan Republik Indonesia Nomor 52 Tahun 2018 Tentang Keselamatan Dan Kesehatan Kerja Di Fasilitas Pelayanan Kesehatan, 2018)

**Conceptual Framework**

Variables that allow for research are knowledge, infrastructure, training, and supervision. The variable that was not studied was the emergency response plan because the research location did not have written regulations, guidelines, or SOPs regarding emergency response plans, but did have SOPs related to fire. The disaster warning variable was also not studied because the results of researchers' observations and interviews with the person in charge of K3 at the community health center stated that disaster warnings were insufficient.



**Figure 3. Research Conceptual Framework**

**Hypothesis**

The hypothesis or temporary conjecture of this research is:

H1: There is a relationship between knowledge and the level of fire preparedness for Kenali Besar Public Health Center employees, Jambi City

H2: There is a relationship between the availability of infrastructure and the level of fire preparedness for employees of the Kenali Besar Community Health Center, Jambi City.

H3: There is a relationship between training and the level of fire preparedness for Kenali Besar Health Center employees in Jambi City.

H4: There is a relationship between supervision and the level of fire preparedness for Kenali Besar Public Health Center employees in Jambi City.

## METHODOLOGY

This type of research is quantitative research with a cross-sectional research design to see whether there is a relationship between the variables studied and the dependent variable, namely the fire preparedness of Kenali Besar Public Health Center UPTD employees. The research uses a questionnaire measuring tool. The population in this study were workers at the UPTD Kenali Besar Health Center, totaling 63 employees. This research uses total sampling or the entire population in this research is the sample because the population is under 100 employees, namely 63 employees (Carsel, 2018). Data analysis was carried out in two ways, namely, univariate analysis to describe each research variable based on frequency distribution presented in the form of numbers and percentages and bivariate analysis through the chi-square statistical test with a confidence level of 95% ( $\alpha = 0.05$ ).

## RESEARCH RESULT

### *Univariate Analysis*

**Table 1. Frequency Distribution of Research Variables**

No	Kesiapsiagaan Kebakaran	Jumlah (n)	Persentase (%)
1	Tinggi	35	55,6
2	Rendah	28	44,4
Total		63	100
No	Knowledge	Jumlah (n)	Persentase (%)
1	Good	31	49,2
2	Not good	32	50,8
Total		63	100
No	Sarana Prasarana	Jumlah (n)	Persentase (%)
1	Good	33	52,4
2	Not good	30	47,6
Total		63	100
No	Training	Jumlah (n)	Persentase (%)
1	Good	32	50,8
2	Not good	31	49,2
Total		63	100
No	Supervision	Jumlah (n)	Persentase (%)
1	Good	42	66,7
2	Not good	21	33,3
Total		63	100

### *Analisis Bivariat*

**Table 2. Bivariate Analysis of Knowledge, Infrastructure, Training and Supervision Variables with Fire Preparedness**

Knowledge	Fire Preparedness				Total		PR 95% CI	p-value
	Tinggi		Rendah		n	%		
	n	%	n	%				
Good	23	74,2	8	25,8	31	100	1,978 (1,208 - 3,240)	0,007
Not good	12	37,5	20	62,5	32	100		

Infrastructure	Fire Preparedness				Total		PR 95% CI	p-value
	Tinggi		Rendah		n	%		
	n	%	n	%				
Good	24	72,7	9	27,3	33	100	1,983 (1,186 - 3,318)	0,009
Not good	11	36,7	19	13,3	30	100		

Training	Fire Preparedness				Total		PR 95% CI	p-value
	Tinggi		Rendah		n	%		
	n	%	n	%				
Good	20	62,5	12	37,5	32	100	1,292 (0,822 - 2,030)	0,382
Not good	15	48,4	16	51,6	31	100		

Supervision	Fire Preparedness				Total		PR 95% CI	p-value
	Tinggi		Rendah		n	%		
	n	%	n	%				
Good	25	59,5	17	40,5	42	100	1,250 (0,748 - 2,088)	0,530
Not good	10	47,6	11	52,4	21	100		

## DISCUSSION

### *Fire Preparedness*

Preparedness in this study was measured using a questionnaire with 25 question items. Each question has a value of 1 to 4 so the minimum answer value is 25 and the maximum answer value is 100. Based on research results through univariate analysis, most of the results of research conducted on 63 UPTD employees of the Kenali Besar Public Health Center, showed that there were 35 (55.6 %) respondents had high preparedness. The level of preparedness of community health center employees in dealing with fires can influence the magnitude of the impact of a fire at the community health center.

Preparedness is seen from the first parameter, namely attitude. Individual attitudes will be an encouragement to take good preparedness actions in decision-making when facing the danger of fire (Anis Astari et al., 2020). According to the Theory of Reasoned Action by Ajzen and Fishbein (1980) and updated to the Theory of Planned Behavior, behavior will be influenced by attitudes through careful and reasoned decision-making (Afritia et al., 2020 ). The second parameter is policies, regulations, and guidelines. In preparedness activities, policies and guidelines are important as concrete efforts because they will have a written form that will be meaningful as a policy that will be followed by individuals (Atelia et al., 2022). The third parameter is an emergency response plan related to aid and rescue in the event of a fire to reduce the impact of material loss and loss of life. With a good emergency response plan, fire preparedness will also improve (Wahyuni et al., 2023). The

fourth parameter is the early warning system. The early warning system itself is a series of systems that work to inform you that a fire will occur. To increase fire preparedness, the availability of an early warning system can serve as a reminder for employees (Pratama & Novrikasari, 2020). The fifth parameter is resource mobilization which includes preparedness training, abilities and skills in using APAR, and good resource management (LIPI-UNESCO/ISDR, n.d.).

### ***The Relationship between Knowledge and Fire Preparedness***

According to Notoadmojo, knowledge is information that individuals obtain regarding certain objects/topics that are felt, seen, heard, etc. through their senses (Notoatmodjo, 2018). Knowledge is the source of individual action. So with good knowledge, it is hoped that the individual will take good actions as well (LIPI-UNESCO/ISDR, n.d.).

The knowledge in this research is knowledge about preparedness and fire, such as understanding preparedness, fire, causes of fire, fire triangle, unsafe action, unsafe conditions, active fire protection systems, passive fire protection systems, fire extinguishers, and parameters that influence preparedness. Knowledge was measured using a questionnaire with 10 question items. Each question has a value of 1 to 4 so the minimum answer value is 10 and the maximum answer value is 40.

Based on the results of research carried out using the chi-square statistical test, a value of  $p = 0.007$  ( $p\text{-value} < 0.05$ ) was obtained, so it can be interpreted that there is a relationship between knowledge and employee fire preparedness. Of the 31 employees with good knowledge, 23 employees have high preparedness. Based on the research results, some employees know the causes of fires. It can be seen in statement item number 3, namely "The cause of fires is human negligence, radiation, equipment malfunctions, static electricity, cigarettes" which is a positive statement, as many as 36 (57.1%) employees are very aware of this.

The characteristics of Kenali Besar Community Health Center employees come from different backgrounds, different ages, different lengths of work, different educational institutions, and different levels of education. According to Perry and Lindell, character diversity influences the frequency with which individuals are exposed to information regarding preparedness (Perry & Lindell, 2008). According to Riyanto, knowledge is influenced by information received from the formal sector and the non-formal sector. In the non-formal sector, knowledge is obtained from training, seminars, information received, simulations, and access to information. In the formal sector, knowledge is received through education through educational institutions (Riyanto & Budiman, 2013). Based on this, the knowledge of employees at the Kenali Besar Community Health Center is influenced by their level of education. Most of the Kenali Besar Community Health Center employees have received formal education above high school level so their knowledge of fire preparedness also tends to be good.

This research is in line with research findings conducted by Yasmita Anis Astari, Daru Lestantyo, and Ekawati (2020) regarding predisposing, enabling, and reinforcing factors related to the preparedness of mental hospital nurses in facing the danger of fire. This research confirms that good knowledge can have



a positive impact on preparedness. This research also conveys that according to Lawrence Green's theory, knowledge as a predisposing factor influences preparedness (Anis Astari et al., 2020).

Fire is an unexpected disaster and has many major negative impacts if it occurs. All locations have the potential for fire. To increase preparedness, knowledge needs to be increased because knowledge is a source for individuals to take action (Saparwati et al., 2020). If connected with the understanding of knowledge that has been conveyed by Notoadmojo, then if good preparedness actions/behaviors are supported by good knowledge, these preparedness actions/behaviors will be implemented.

In the preparedness parameters by LIPI-UNESCO/ISDR, the main factor or key factors that influence preparedness is knowledge (LIPI-UNESCO/ISDR, n.d.). Knowledge can be influenced by work, age, experience, interests, education, culture and information (Firmansyah et al., 2014). Knowledge goes hand in hand with preparedness, where good knowledge can improve individual fire preparedness.

Based on field findings, the management and staff of Kenali Besar Community Health Center is a community health center that is very open to suggestions, input, and education. This is proven by the fact that many students, lecturers, and institutions carry out activities such as research, internships, community service, and collaboration with community health centers. This can mean that employees have an openness to accepting new things.

### ***Relationship between Infrastructure and Fire Preparedness***

Infrastructure is usually defined as the facilities that are expected to exist in carrying out a system or activity (Welnita et al., 2024). Infrastructure is an enabling factor because it allows individuals to carry out fire preparedness. Infrastructure is equipment that will provide protection and security if one day a fire occurs in a certain place (Nursalekha et al., 2019).

The infrastructure in this research is employee perceptions regarding the availability of extinguishers, effectiveness of extinguishers, number of extinguishers, and ease of access to extinguishers and sand drums. Infrastructure facilities were measured using a questionnaire with 6 question items. Each question has a value of 1 to 4 so the minimum answer value is 6 and the maximum answer value is 24.

Based on the results of research that has been carried out using the chi-square statistical test, a value of  $p = 0.009$  ( $p\text{-value} < 0.05$ ) was obtained, so it can be interpreted that there is a relationship between infrastructure and employee fire preparedness. Of the 33 employees who perceived good infrastructure, 24 employees had high preparedness. Based on research results, the majority of employees have positive perceptions regarding the availability of extinguishers. It can be seen in statement item number 1, namely "The availability of extinguishers in the community health center is important in the work environment of the community health center" which is a positive statement, as many as 49 (77.8%) employees strongly agreed with this.

This research is in line with research findings conducted by Laila Fitriana, Suroto, and Bina Kurniawan (2017) regarding factors related to the preparedness of production employees. This research shows that there is a significant relationship between fire protection facilities and fire preparedness. The fire protection facilities in this study were classified as being in good condition (76%) based on employee perceptions. This is because infrastructure is what determines the quality of work results which influences employee productivity (Fitriana et al., 2017).

According to Notoadmodjo, individual behavior can be influenced by perception, motivation, beliefs, desires, and intentions. Initially, stimuli/new things in the form of experiences or information are translated, perceived, believed, and known by individuals, so that they can give rise to motivation, perceptions, beliefs, desires, and intentions. Then the individual responds to this through behavior (Notoatmodjo, 2018). The behavior will become real by requiring supporting factors in the form of infrastructure.

Fire prevention and control facilities according to the Republic of Indonesia Minister of Health Regulation Number 52 of 2018 include active fire protection facilities and passive fire protection facilities. Active fire extinguishing systems are tools such as fire extinguishers, sprinklers, heat detectors, and smoke detectors. Meanwhile, passive fire protection means in the form of evacuation routes, emergency doors, emergency stairs, and gathering points.

Based on field findings, it is known that there are APARs of various sizes in different rooms, namely 3 kg, 3.2 kg, and 5 kg. Fire extinguishers are installed firmly and placed in a position that is easy to see and reach. APAR is accompanied by an inspection card and safety sign/safety signs and procedures for using the APAR, while there is no availability of facilities such as hydrants, house reels, and fire detectors.

### *The Relationship between Training and Fire Preparedness*

Preparedness training is the basis for building a safe culture at work. Fire preparedness training includes effective and efficient ways to save yourself and how to avoid losses and accidents when a fire occurs (Virgiani et al., 2022). Training is an enabling factor in preparedness because it allows individuals to carry out fire preparedness.

Training in this research is employee perceptions regarding the urgency of training, participation in fire training, usefulness of training, implementation of material, and regularity of training implementation. Infrastructure facilities were measured using a questionnaire with 7 question items. Each question has a value of 1 to 4 so the minimum answer value is 7 and the maximum answer value is 28.

Based on the results of research conducted using the chi-square statistical test, the  $p$ -value = 0.382 ( $p$ -value  $\geq 0.05$ ) was obtained, so it can be interpreted that there is no relationship between training and employee fire preparedness. Of the 32 employees with good training perceptions, 20 employees had high preparedness. Based on research results, the majority of employees have positive perceptions regarding the implementation of training. It can be seen in statement item number 5, namely "You can apply the material obtained in the

field" which is a positive statement, as many as 50 (79.4%) employees agreed with this.

The training aims to improve the quality and skills of individuals to deal with fires. According to Turnip, et al., individuals who have taken part in training or simulation activities or socialization regarding fire practices can respond to fire management better, more accurately and are able to make rational decisions when a fire occurs (Turnip et al., 2016). This is because through training, individuals can develop ideal skills, ways of thinking, behaving, knowledge and attitudes. Apart from that, through individual training it is hoped that they will be able to increase theoretical, conceptual, moral and skills, especially in fire management, such as increasing preparedness, skills in using fire extinguishers, emergency evacuation, and others (Asalina et al., 2018). So training is needed at community health centers as one of the efforts made to improve fire preparedness.

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This research is in line with research findings conducted by Dahlia, Ali Harokan, and Erma Gustina (2023) regarding fire preparedness factors in regional general hospitals. This research shows that there is no significant relationship between training and fire preparedness. This may be because the training was not carried out to all employees, but to 52 (60.5%) employees (Dahlia et al., 2023).

Research by Ni Kadek Lilis and Kadek Tresna (2023) shows findings that are inversely proportional to the results of this study. Where research shows that the proportion of good training is 83.12%. In this study, the training figures for good respondents and the training figures for poor respondents were not that far apart. However, this research showed that there was a relationship between training and fire preparedness. Although the average worker has received training, some workers have never received any training at all. This happens because each respondent has a different work task focus (Erisnawati & Adhi, 2023)

Based on field findings, the majority of employees from the total respondents have had good training, but training has not been evenly distributed to all community health center employees. In the research results, it was found that there were 4 answers from employees who stated that fire training was not that important (6.3%). For this reason, it is recommended for

community health centers to motivate their employees to take part in fire preparedness training.

### ***The Relationship between Surveillance and Fire Preparedness***

Supervision is important in maintaining the sustainability of a program. Supervision is carried out to ensure that all parties, such as policymakers, continue to work properly by the provisions in force (Dewi, 2021). Supervision is a reinforcing factor because it increases the possibility of behavior occurring (Notoatmodjo, 2018).

Supervision in this research is the implementation of supervision, work standards, urgency of supervision, direction by supervisors, benefits of supervision for employees and visitors, effects of supervision, and warnings. Supervision is measured using a questionnaire with 9 question items. Each question has a value of 1 to 4 so the minimum answer value is 9 and the maximum answer value is 36.

Based on the results of research conducted using the chi-square statistical test, a p-value = 0.530 (p-value  $\geq$  0.05) was obtained, so it can be interpreted that there is no relationship between supervision and employee fire preparedness. Of the 42 employees with good supervision perceptions, 25 employees had high preparedness. Based on research results, the majority of employees have positive perceptions regarding the effects and urgency of supervision. It can be seen in statement item number 5, namely "Supervision is important to carry out" which is a positive statement, as many as 48 (76.2%) employees, and number 7 "Supervision carried out has had a good effect on the father/mother and visitors at the health center" which is a positive statement, as many as 48 (76.2%) employees agreed with this. Supervision is not only useful internally in an organization but for service-providing organizations such as community health centers, the impact of supervision can reach visitors to the community health center. In the research, there are statements regarding the effects of supervision on visitors, the answers obtained tend to be positive.

According to Notoadmodjo, reinforcing factors in realizing preparedness can be done by providing information from people who have power and influence in the workplace. This person can be a superior, supervisor, or respected person (Notoatmodjo, 2003). Supervision is carried out to provide reports to superiors regarding whether the work carried out is by specified plans, orders, objectives, or policies. With supervision, the work system will be more orderly (Andrian, 2021).

Making the working environment safe (safe conditions) or taking safe actions (safe conditions) alone is not enough to guarantee the safety of employees and visitors to the health center. Changing the physical work environment will not necessarily change the safety of employees. This results in the need for supervision even though it will only change the safe behavior of temporary employees and return them to unsafe acts. So supervision needs to be carried out routinely and periodically. By carrying out supervision, community health center management can observe employee behavior, provide feedback, give rewards, assess employee performance, and enforce safety policies (Fitriana et al., 2017).

This research is in line with research findings conducted by Fitriyana, Ekawati, and Bina Kurniawan (2016) regarding fire preparedness factors in airport terminals. This research shows that there is no significant relationship between supervision and fire preparedness. Supervision in this study was categorized as poor by 12 (22.2%) respondents, quite good by 34 (63.0%) respondents, and good by 8 (14.8%) respondents. This is because there is no reward/appreciation system for exemplary employees. Rewards or appreciation can increase employee motivation to implement applicable regulations and policies so that they can work as they should (Fitriyana et al., 2016).

Research by Laila Fitriana, Suroto, and Bina Kurniawan (2017) shows findings that are inversely proportional to the research results which state that there is a significant relationship between monitoring and fire preparedness. Supervision is carried out by providing information to employees regarding the dangers of fire, and warnings both verbally and in writing if there is employee behavior that could cause a fire. Supervision is also carried out by checking fire infrastructure.

Based on field findings, the Puskesmas management does not yet have an award program for the best employees per month. Supervision through giving awards can motivate other employees to improve work quality and productivity and achieve targets according to the puskesmas vision and mission. Supervision in the form of briefings has been carried out via call every day.

## **CONCLUSION AND RECOMMENDATION**

Based on the results of research conducted on 63 employees and observations at the UPTD Kenali Besar Health Center, it can be concluded:

1. The proportion of employees with high preparedness was 35 (55.6%) and low preparedness 28 (44.4%), employees with good knowledge 31 (49.2%) and poor knowledge 32 (50.8%), facilities infrastructure was good 33 (52.4%) and not so good 30 (47.6%), training was good 32 (50.8%) and not so good 31 (49.2%), and supervision was good 42 (66.7%) and not good 21 (33.3%).
2. There is a relationship between knowledge and fire preparedness among Kenali Besar Public Health Center UPTD employees.
3. There is a relationship between infrastructure and fire preparedness among Kenali Besar Public Health Center UPTD employees.
4. There is no relationship between training and fire preparedness for Kenali Besar Community Health Center UPTD employees.
5. There is no relationship between supervision and fire preparedness for Kenali Besar Community Health Center UPTD employees.

Based on the research that has been carried out, discussions and conclusions obtained, the suggestions that can be given by researchers are:

1. It is recommended that the Kenali Besar Community Health Center create a literacy corner that provides reading material about fire preparedness

2. It is recommended that the Kenali Besar Community Health Center maintain and carry out periodic checks and replacements of fire extinguishing facilities.
3. It is recommended for the Kenali Besar Community Health Center to reward exemplary employees who work according to directions and in an orderly manner so that supervision of the community health center employees is maintained.
4. It is recommended for the Kenali Besar Community Health Center to motivate its employees to take part in training regarding fire preparedness.

### **ADVANCED RESEARCH**

Researchers realize that there are limitations in conducting research. The limitations that arise from the research are:

1. The research was conducted with a cross sectional design which only displays the relationship or interrelationship between variables and cannot provide a causal explanation of the dependent and independent variables. So if you want to see cause and effect between variables, it is recommended to use another research design.
2. The number of samples from research conducted tends to be small (under 100 samples) so the statistical power of the research is limited. There is a possible risk that research findings may not reflect the diversity in the wider population.
3. The research instrument used was a non-standard questionnaire so that researchers found it difficult to carry out assessments according to standards, it was difficult to compare one study with another because the characteristics of the samples and locations were different. In addition, non-standard questionnaires are difficult to interpret for readers who are not familiar with the instrument.
4. Another research limitation is time. Where the research sample is community health center employees who have their own responsibilities and duties so it takes quite a long time to fill out the questionnaire and needs to adjust to the schedules of many people at once.
5. Kemungkinan bias yang disebabkan ketidakjujuran atau ketidakseriusan responden maupun responden yang lupa.

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