Description of Workforce Preparedness for Fire Management at Dinoyo Health Center

**Zanuba Syifa' Qotrunnada1, Fresvian Jenrivo2, Ani Asriani Basri3, Fariz Zuvil Arganata4**

**1Occupational Safety and Health Study Program, Health Polytechnic of the Ministry of Health Malang**

**Jl. Besar Ijen No. 77C, Malang City, East Java 405017, Tel. (0341) 566075**

**Corresponding Author : Zanuba Syifa' Qotrunnada**

**Email:** [**zanuba\_p17451204011@poltekkes-malang.ac.id**](file:///C:\Users\Administrator\Desktop\Jurnal%202024\Ju%20ni\fix\zanuba_p17451204011@poltekkes-malang.ac.id)

Receive : April 29 th2024. Revised : July 03th2024. Published: July 15th2024

**DOI :** [**https://doi.org/10.22219/sm.Vol20.SMUMM1.33302**](https://doi.org/10.22219/sm.Vol20.SMUMM1.33302)

**ABSTRACT**

Background: Dinoyo Community Health Center is a health facility in Malang City that must implement fire safety. There have been 4 incidents in 2020 and 8 incidents in 2021 where fire occurred at community health centers. Preparedness is carried out as an effort to deal with fires from a human perspective. Research objective: To determine workforce preparedness for fire management at the Dinoyo Community Health Center. Research type: descriptive quantitative with a population of 55 people using saturation sampling techniques. There are 2 preparedness parameters in this research variable, namely knowledge and attitudes. Results: The preparedness of the workforce is "ready" category for fire management with an index value of 76.10. The level of knowledge scored 66.23 is "ready" category and attitude scored 85.98 is "very ready" category. Conclusion: The attitude value is higher than the knowledge value. This is because attitudes are not only influenced by knowledge, but also influenced by personal experience, the influence of other people, and emotional influence. The workforce has received fire management training and simulations. The interview results show that the workforce understands information related to emergencies. Suggestion: Workers should increase their knowledge through print media or the internet.

**Keywords**: Community Health Center, Fire, Preparedness.

` Copyright © 2024, Zanuba Syifa' Qotrunnada et al

This is an open access article under the CC–BY-SA license

**INTRODUCTION**

Disasters are not only about natural events but also non-natural events, and are the result of humans themselves. This is caused by gaps, carelessness, and also accidentally. Indonesia also cannot avoid disasters including fires. Fire is the condition of a building such as housing, industry, supermarkets, or other buildings catching fire, resulting in casualties and other losses. Various factors cause fires such as intentional or unintentional behavior (USFA, 2015).

Several countries in the world are vulnerable to disasters, one of which is Indonesia. Indonesia has experienced serious disaster problems since the Aceh earthquake and tsunami in 2004. The frequency of disasters has increased from 2018 to 2021, so disaster management is needed by all parties. Every individual also needs to be prepared to face and overcome disasters. The slow response to disasters is a problem that needs to be overcome.

A fire incident occurred at Sejong Hospital, South Korea on January 26 2018. The fire killed 41 people and dozens of others were injured. Fire incidents also occurred from 2018 to August 2022 totaling 8,004 fire incidents in the Indonesian capital. This report comes from the DKI Jakarta Fire and Safety Management Service.

**Table 1**. Number of Community Health Center Fire Incidents.

|  |  |  |
| --- | --- | --- |
| No | Year | Number of Fire Incidents |
|  | 2018 | 1.751 |
|  | 2019 | 2.161 |
|  | 2020 | 1.501 |
|  | 2021 | 1.532 |
|  | 2022 | 1.059 |
| Total | | 8.004 |

Indonesia experienced several fire incidents amounting to 62.8% caused by electrical short circuits, poor spatial layout and minimal infrastructure for handling fire incidents. Inaccurate layout of the electrical lines can have an impact on all components around it.

The Malang City Fire and Rescue Department reported that in 2021 there were 66 fire incidents. 40.9% of the causes of fires came from electrical short circuits. There has been an increase of 10.81% in 2022 to 74 fire incidents, which are still predominantly caused by electrical short circuits.

Health center fires have increased in the last 3 years. It was recorded that fires had occurred in Indonesia at 4 community health centers in 2020 and increased in 2021 to 8 incidents and 8 incidents in 2022. One of them occurred at the UPTD of Blooto Community Health Center, Mojokerto on October 16 2023. This incident caused 1 person to run out of oxygen. due to thick smoke and was rushed to hospital. The fire came from a pile of used goods in the used warehouse area on the ground floor of the Blooto Community Health Center and from the cleaning service room.

Regulation of fire protection equipment in work areas and requiring managers or operators to prevent, mitigate and extinguish fires as well as carry out fire extinguishing training in the workplace (Decree of the Minister of Manpower of the Republic of Indonesia Number 186 of 1999). Fire prevention is part of work safety. Implementing a fire management system includes a series of actions such as formulating fire risk development policies, disaster prevention measures, emergency response and recovery.

Fires in health centers can occur due to explosive and/or flammable chemicals, pressurized gas cylinders, and electronic devices. Based on the activities at the health center, fire prevention is needed. Fire anticipation is carried out through a series of structured activities and appropriate and effective procedures.

One of the K3 standards for health service facilities is workforce preparedness in dealing with emergency conditions including fires (RI Minister of Health Regulation Number 52 of 2018). Workers at health facilities are required to be prepared if a fire occurs. However, the facts on the ground say otherwise. Many human resources in health facilities, especially community health centers, only understand how to deal with them without taking action.

Previous research was conducted by Cahyani, Yulia Fegy (2020) by analyzing the level of community preparedness for residential fire disasters. Community unpreparedness in dealing with fire incidents is caused by inhibiting factors such as a lack of public knowledge about physical and economic dangers. The external factor is the lack of training and disaster preparedness simulations. Therefore, preparation is very important.

Based on the literature study that has been carried out, the novelty value (*novelty*) namely that there is no research related to workforce preparedness for fire management at the Dinoyo Community Health Center. The variables used are based on 5 preparedness parameters, namely knowledge and attitudes, policies and guidelines, emergency response plans, early warning systems, and resource mobilization. In this study, researchers used knowledge and attitude parameters because this research focuses on aspects of human resources.

The results of observations carried out at the Dinoyo Community Health Center, found that tools or means for countermeasures were carried out by placing fire extinguishers on the floor and access was blocked and the location of safety signs was blocked. Other facilities such as evacuation routes and gathering points are available, but simulations need to be carried out so that officers know what to do during an emergency, especially a fire. Apart from that, the absence of technical guidelines can affect the control of emergency conditions. So it is necessary to re-assess workforce preparedness.

Based on the problems above, this research focuses on knowledge and attitudes regarding workforce preparedness in handling fires at the Dinoyo Community Health Center. Based on the problems obtained, the aim of this research is to determine the preparedness of the workforce in dealing with fires at the Dinoyo health center.

**METHODS**

The method used in the research is descriptive quantitative methods, namely obtaining an analytical picture of workforce preparedness in dealing with fires at the Dinoyo Community Health Center. Descriptive research is research that provides an overview or explains something in terms of characteristics or function. The researcher used a descriptive quantitative research design because the researcher aimed to find out and assess the preparedness of the workforce at the Dinoyo Community Health Center in dealing with fires. Based on ethical test number No.DP.04.03/F.XXI.31/0009/2024, the research has been declared ethically appropriate according to 7 (seven) WHO 2011 standards.

**RESULTS AND DISCUSSION**

1. Characteristics

Respondent characteristics are a description of the respondent. Workforce characteristics are differentiated based on sociodemographic. Sociodemographic are distinguishing characteristics that describe individuals within a group of people. These individual characteristic factors are grouped into several groups, including age, gender, education level, occupation and training. These characteristics are factors in determining preparedness.

**Table 2**. Distribution of Respondents Based on Workforce Characteristics

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| No | Characteristics | | Level of Preparedness | | | | Total |
| Less Ready | Almost Ready | Ready | Very Ready |
| 1 | Gender | Man | 1 | 0 | 11 | 3 | 15 |
| Woman | 0 | 4 | 24 | 12 | 40 |
| 2 | Age | Late Teens | 0 | 0 | 6 | 1 | 7 |
| Early Adulthood | 1 | 1 | 9 | 4 | 15 |
| Late Adulthood | 0 | 3 | 11 | 9 | 23 |
| Early Elderly | 0 | 0 | 7 | 1 | 8 |
| Late Elderly | 0 | 0 | 2 | 0 | 2 |
| 3 | Level of education | Junior High School | 0 | 0 | 1 | 1 | 2 |
| Senior High School | 0 | 0 | 5 | 2 | 7 |
| Associate Degree | 0 | 2 | 16 | 6 | 24 |
| Applied Bachelor | 0 | 1 | 2 | 3 | 6 |
| Bachelor | 1 | 1 | 10 | 3 | 15 |
| Master | 0 | 0 | 1 | 0 | 1 |
| 4 | Profession | Administration | 0 | 0 | 2 | 0 | 2 |
| Pharmacist | 0 | 0 | 2 | 1 | 3 |
| ATLM | 0 | 0 | 1 | 1 | 2 |
| Midwife | 0 | 2 | 4 | 6 | 12 |
| Cleaning Service | 0 | 0 | 2 | 2 | 4 |
| Doctor | 0 | 1 | 4 | 2 | 7 |
| Nutritionist | 0 | 0 | 3 | 0 | 3 |
| Nurse | 0 | 1 | 6 | 2 | 9 |
| Health Promotion | 1 | 0 | 4 | 0 | 5 |
| Medical records | 0 | 0 | 4 | 0 | 4 |
| Sanitarian | 0 | 0 | 2 | 0 | 2 |
| Security guard | 0 | 0 | 1 | 1 | 2 |
| 5 | Training | Once | 1 | 2 | 33 | 13 | 49 |
| Never | 0 | 2 | 2 | 2 | 6 |

1. Gender

The table above shows the distribution of workforce characteristics based on gender. It is known that the female workforce is 40 respondents (72.7%) with 12 respondents (30%) in the "very ready" category, 24 respondents (60%), and 4 respondents (10%) in the "almost ready" category. Meanwhile, men accounted for 15 respondents (27.3%) with 3 respondents (20%) in the "very ready" category, 11 respondents (73.3%) in the "ready" category, and 1 respondent (6.7%) in the "ready" category. not ready."

1. Age

The table above shows the distribution of workforce characteristics based on age. The results of the analysis show that there were 7 respondents with an age range of 17-25 years (late teens), of which 6 respondents (85.7%) were in the "ready" category and 1 respondent (14.3%) was in the "very ready" category. 15 respondents aged 26-35 years (early adulthood) with 4 respondents (26.6%) in the "very ready" category, 9 respondents (60%) in the "ready" category, 1 respondent (6.7%) in the "almost ready" category. , and 1 respondent (6.7%) was in the "less prepared" category.

The majority of respondents were aged 36 – 45 years (late adulthood) with 23 respondents (41.8%). There were 9 respondents (39.19%) in the "very ready" category, 11 respondents (47.83%) in the "ready" category, and 3 respondents (13.04%) in the "almost ready" category.

Respondents aged between 46 – 55 years (early elderly) were 8 people (14.5%). There was 1 respondent (12.5%) in the "very ready" category and 7 respondents (87.5%) in the "ready" category. There were 2 respondents aged 56 – 65 years (late elderly) in the "ready" category.

1. Level of education

From the table above, you can see the characteristics of the workforce based on education level. Of the 55 workers, 2 people (3.6%) have junior high school education, with the preparedness category 1 respondent (50%) "ready" and 1 respondent (50%) "very ready". 7 people (12.7%) had SMA/SMK education, of which 5 people were in the "ready" category (71.4%) and 2 people were "very ready" (28.6%).

The majority of the workforce, 24 people (43.6%) have a D3 education, of which 6 respondents (25%) are in the "very ready" category, 16 respondents (66.7%) are in the "ready" category, and 2 respondents (8.3%) are in the "ready" category. “almost ready”. There were 6 people (10.9%) with D4 education in the category, including 3 respondents (50%) in the "very ready" category, 2 respondents in the "ready" category, and 1 respondent (16.7%) in the "almost ready" category.

There were 15 people (27.3%) with a bachelor's degree, of which 3 respondents (20%) were in the "very ready" category, 10 respondents (66.6%) were in the "ready" category, 1 respondent (6.7%) was in the "almost ready" category. , and 1 respondent (6.7%) was in the "less prepared" category. 1 person (1.8%) has a master's degree in the "ready" category.

1. Worker Profession

From the table above, it shows the characteristics of the workforce based on work. Of the 55 workers, 2 people (3.6%) work as administrative staff in the "ready" category. 3 people (5.5%) were pharmacists with 1 respondent (33.3%) in the "very ready" category and 2 respondents (66.7%) in the "ready" category. There are 2 laboratory or ATLM officers (3.6%) of which 1 respondent (50%) is in the "very ready" category and 1 respondent (50%) is in the "ready" category.

The majority worked as midwives with 12 people (21.8%). There were 6 respondents (50%) in the "very ready" category, 4 respondents (33.3%) in the "ready" category, and 2 respondents (16.7%) in the "almost ready" category. Dinoyo Community Health Center has 7 (12.7%) doctors, including 2 respondents (28.6%) in the "very ready" category, 4 respondents (57.1%) "ready", and 1 respondent "almost ready" ( 14.3%).

There are 3 people (5.5%) working as nutritionists in the "ready" category. Other medical staff, namely nurses, were 9 people (16.4%). 2 respondents (22.2%) were in the "very ready" category, 6 respondents (66.7%) were in the "ready" category, and 1 respondent (11.1%) was in the "almost ready" category.

There are 5 people (9.1%) working as health promotion. 4 respondents (80%) were in the "ready" category and another 1 respondent (20%) was in the "less ready" category. There are 4 medical records personnel (7.3%) included in the "ready" category. Sanitarians totaling 2 people (3.6%) are included in the "ready" category.

There are 4 people (7.3%) working as cleaning services. 2 respondents (50%) were in the "very ready" category and the other 2 respondents (50%) were in the "ready" category. 2 people (3.6%) work as security guards with 1 respondent (50%) in the "very ready" category and another 1 respondent (50%) in the "ready" category.

1. Training

From the table above, you can see the distribution of workforce based on fire training history. Of the 55 people, 49 people (89.1%) had attended fire-related training and 6 people (10.9%) had never attended fire-related training. Among the 49 people who had taken part in fire training, 13 respondents (26.53%) could be categorized as "very ready", 33 respondents (67.35%) in the "ready" category, 2 respondents (4.08%) in the "almost ready" category. ready”, and 1 respondent (2.04%) was in the “not ready” category. Meanwhile, of the 6 people who had never attended fire training, there were 2 respondents (33.3%) in the "very ready" category, 2 respondents (33.3%) in the "ready" category, and 2 respondents (33.3%) in the "almost ready" category. Ready".

The results of the age analysis of the workforce show that the age range of 36 - 45 years reaches the "very ready" category with the highest percentage, namely 39.13%. Age 36 – 45 years is considered late adulthood (Depker RI, 2009). In line with Nursalam (2017), younger people have relatively lower work motivation compared to older workers. This is because young workers are not yet grounded in reality, so they easily feel disappointed. As a person gets older, a person's understanding will also become higher. The level of maturity in thinking will get better. Increasing age will also increase a person's ability to make decisions, control emotions, think rationally and be tolerant of other people's opinions, which will also influence increased motivation.

Gender differences influence the way of thinking, feeling, and acting (Ministry of Health, 2009). The results of the cross tabulation between preparedness and female gender show that there are 30% or 12 respondents in the very prepared category which is greater than that of men. Gender is not the main factor in fire preparedness because there are other factors, namely knowledge and experience. This is in line with the statement that women's knowledge is better than men because their level of understanding is more mature (Doutti, 2020).

The distribution of workforce preparedness based on education level is included in the "very prepared" category with the highest percentage being junior high school education level with 1 person (50%) and D4 with 3 people (50%). There are 2 workers who are junior high school graduates, namely cleaning service professions. Cleaning services tend to have more experience in the field.

Education does not affect a person's preparedness. The work environment is able to provide knowledge or experience to someone, either directly or indirectly, which influences the process of receiving knowledge ((Mubarak (2011) in Khairunnisa Z (2021)).

The highest percentage of workforce professions at the Dinoyo Health Center in the "very prepared" category are ATLM, midwives, cleaning services and security guards. The majority of professions at the Dinoyo Health Center are midwives, 12 people (21.8%) with 6 of them in the "very prepared" category. Each profession has its own duties and roles. Each profession also has its own potential dangers. So preparedness is needed, especially in dealing with fires. Fire hazards such as chemicals, electricity, sparks, and other hazards that can cause fire.

Lawrence Green's theory that training can be a strengthening factor for someone to carry out an action (Notoatmojo, 2010 in Zahra Nurdina Fitriani et al, 2019). Experience can influence a person's preparedness. Experience can improve a person's thinking ability in carrying out their responsibilities (Telafiani, 2014). A person must increase their experience through training so that they are able to make decisions during an emergency (Pribadi, 2009). Training can influence a person's way of thinking. The more training, the better the preparedness.

The distribution of respondents based on participation in training included 2 people who had not participated in the training but were in the "very ready" category. This percentage is higher compared to workers who have attended training (33.3% > 26.53%). Both people are in the age range of 36 – 45 years (late adulthood). The knowledge and experience gained regarding fire management is influenced by a person's age.

1. Knowledge

**Table 3**. Distribution of Respondents Based on Level of Knowledge

|  |  |  |
| --- | --- | --- |
| Knowledge | Frequency | Percentage (%) |
| Good | 9 | 16.36 |
| Enough | 24 | 43.64 |
| Not enough | 22 | 40 |
| Total | 55 | 100 |

The table above shows the results of the knowledge analysis of fire management at the Dinoyo Community Health Center. It can be seen that of the 55 respondents, 9 people (16.36%) had good knowledge, 24 people (43.65%) had sufficient knowledge, and 22 people (40%) had poor knowledge.

**Table 4.** Distribution of Respondents Based on Level of Knowledge of Characteristics

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No | Characteristics | | Knowledge Level | | | Total |
| Good | Enough | Not Enough |
| 1 | Gender | Man | 0 | 8 | 7 | 15 |
| Woman | 9 | 16 | 15 | 40 |
| 2 | Age | Late Teens | 0 | 2 | 5 | 7 |
| Early Adulthood | 2 | 9 | 4 | 15 |
| Late Adulthood | 6 | 8 | 9 | 23 |
| Early Elderly | 1 | 5 | 2 | 8 |
| Late Elderly | 0 | 0 | 2 | 2 |
| 3 | Level of education | Junior High School | 0 | 1 | 1 | 2 |
| Senior High School | 0 | 2 | 5 | 7 |
| Associate Degree | 6 | 9 | 9 | 24 |
| Applied Bachelor | 2 | 2 | 2 | 6 |
| Bachelor | 1 | 9 | 5 | 15 |
| Master | 0 | 1 | 0 | 1 |
| 4 | Profession | Administration | 0 | 0 | 2 | 2 |
| Pharmacist | 0 | 2 | 1 | 3 |
| ATLM | 1 | 1 | 0 | 2 |
| Midwife | 5 | 3 | 4 | 12 |
| Cleaning Service | 0 | 2 | 2 | 4 |
| Doctor | 0 | 6 | 1 | 7 |
| Nutritionist | 1 | 0 | 2 | 3 |
| Nurse | 2 | 5 | 2 | 9 |
| Health Promotion | 0 | 3 | 2 | 5 |
| Medical records | 0 | 1 | 3 | 4 |
| Sanitarian | 0 | 0 | 2 | 2 |
| Security guard | 0 | 1 | 1 | 2 |
| 5 | Training | Once | 8 | 21 | 20 | 49 |
| Never | 1 | 3 | 2 | 6 |

The distribution of respondents based on knowledge of the workforce at the Dinoyo Community Health Center showed that 22 respondents (40%) were in the poor category. 7 male workers (47%) have a level of "less" knowledge. This contradicts Moekijat's (1998) statement that men tend to obtain information more easily because the information they get from activities is higher.

Workers in late elderly in the age range of 56-65 years, have a knowledge level of "less" as many as 2 people (100%). This could be because increasing age can affect a person's physical and psychological well-being. The body's ability to carry out various activities will decrease.

Workers with a high school education level had a "less" level of knowledge as many as 5 people (71%). Knowledge can be obtained from formal or non-formal education. The higher the level of education, the higher the process of receiving information. This is in line with Mubarak, et al (2007) regarding factors that influence a person's knowledge, namely education level.

Workers with administrative and sanitarian professions have a level of "less" knowledge of 2 people each (100%). A person can gain knowledge and experience from the work environment. A person's profession can influence knowledge because of daily activities such as interactions with other people.

20 workers who had attended fire training had a level of "less" knowledge (40.8%). Knowledge can be obtained if the individual has an interest in something. Without interest, the individual will not try or pursue it so that the knowledge gained will not be optimal.

This shows that many workers do not understand how to deal with fires, especially the level of understanding regarding the causes of fires and social vulnerability. So it is one of the factors inhibiting workforce preparedness at the Dinoyo Community Health Center.

1. Attitude

**Table 5.** Distribution of Respondents Based on Attitudes towards Characteristics

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| No | Characteristics | | Attitude Level | | | Total |
| Good | Enough | Not Enough |
| 1 | Gender | Man | 14 | 1 | 0 | 15 |
| Woman | 28 | 12 | 0 | 40 |
| 2 | Age | Late Adolescence | 7 | 0 | 0 | 7 |
| Early Adulthood | 11 | 4 | 0 | 15 |
| Late Adulthood | 17 | 6 | 0 | 23 |
| Early Elderly | 7 | 1 | 0 | 8 |
| Late Elderly | 0 | 2 | 0 | 2 |
| 3 | Level of education | Junior High School | 2 | 0 | 0 | 2 |
| Senior High School | 6 | 1 | 0 | 7 |
| Associate Degree | 15 | 9 | 0 | 24 |
| Applied Bachelor | 4 | 2 | 0 | 6 |
| Bachelor | 14 | 1 | 0 | 15 |
| Master | 1 | 0 | 0 | 1 |
| 4 | Profession | Administration | 2 | 0 | 0 | 2 |
| Pharmacist | 3 | 0 | 0 | 3 |
| ATLM | 2 | 0 | 0 | 2 |
| Midwife | 7 | 5 | 0 | 12 |
| Cleaning Service | 4 | 0 | 0 | 4 |
| Doctor | 6 | 1 | 0 | 7 |
| Nutritionist | 2 | 1 | 0 | 3 |
| Nurse | 4 | 5 | 0 | 9 |
| Health Promotion | 5 | 0 | 0 | 5 |
| Medical records | 3 | 1 | 0 | 4 |
| Sanitarian | 2 | 0 | 0 | 2 |
| Security guard | 2 | 0 | 0 | 2 |
| 5 | Training | Once | 39 | 10 | 0 | 49 |
| Never | 3 | 3 | 0 | 6 |

The table shows that there are 42 respondents (76.4%) in the good category. The analysis results show that the workforce is very well prepared to deal with fires. All pre-disaster activities such as caring for other people, efforts to respond to fires, to training and simulations.

14 male workers (93%) had an attitude in the "good" category. A good attitude is characterized by the implementation of fire management. Men tend to do more exploration than women. Personal experience as a factor influencing attitudes will be obtained as much as possible.

Workers in their late teens, namely 17-25 years old, had an attitude in the "good" category as many as 7 people (100%). Attitudes can change because attitudes can be learned. Curiosity in late teens tends to be high. Training can influence a person's response to a condition.

Workers with junior high school education have an attitude in the "good" category as many as 2 people (100%). Workers with a master's level of education have an attitude in the "good" category as much as 1 person (100%). Education is one thing to develop abilities and personality. The data shows that the highest percentage of education level regarding the attitude of the Dinoyo Health Center workforce is Master's and Middle School. The higher the level of education, the greater the awareness of the behavior or attitudes that must be carried out. This contradicts this statement because the workforce with a junior high school education level is among the highest percentages. The experience gained by these workers can influence how they respond to a situation.

39 workers who had attended fire training had an attitude in the "good" category (79.6%). Training functions as a means of information to workers in the event of a fire. The workforce is able to respond well when emergencies occur, especially fires. A trained workforce will increase preparedness in dealing with fires.

Workers in the professions of administration, pharmacist, ATLM, cleaning service, health promotion, sanitarian and security guard have an attitude in the "good" category each at 100%. All of these workers have attended fire-related training carried out by the Dinoyo Community Health Center in 2023.

Attitudes can change over time. These changes can occur in response or reciprocity to a condition by the individual himself. Attitudes are influenced by several factors including personal experience, influence of other people, cultural influence, mass media, education, and emotion (Azwar, 2013).

1. Preparedness

**Table 6**. Workforce Preparedness Level Based on Knowledge and Attitude

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| No | Parameter | Achievement Score (Index Value) | Total Score | Category |
| 1 | Knowledge | 66.23 | 100 | Ready |
| 2 | Attitude | 85.98 | 100 | Very ready |
| Workforce Readiness | | 76.10 | 100 | Ready |

Fires can occur regardless of place and time. Manpower needs to be prepared to be able to deal with fires. Workforce preparedness can be seen through the level of knowledge and attitudes.

The research results also show that the Dinoyo Community Health Center workforce is in the "ready" category with a total score of 76.10. However, the attitude score (85.98) was higher than knowledge (66.23). Knowledge is one of the factors that influences a person's attitude (Notoatmojo in Ramadhani, 2021).

Sometimes a person does not act according to the attitudes that exist within him. The information a person receives can change a person's attitude towards an object through persuasion and pressure from the surroundings (Alhamda, 2015). Attitude has become a closed reaction and is a syndrome related to factors of opinion, thoughts, emotions, attention and other psychological symptoms towards an existing object (Notoatmodjo in Dewi, 2019). Attitude is a person's willingness to actually carry out a behavior.

One of the factors that influence a person's attitude (Azwar, 2013) is personal experience, influence from other people, and emotional influence. Attitudes are easily formed when personal experiences occur in conditions containing emotional elements. Emotions become a channel for frustration or a form of distraction mechanism. Apart from that, other people are an important part of influencing a person's attitude. So that attitude formation will be affected and it is not just knowledge that influences a person's attitude.

**CONCLUSION**

The level of knowledge of the workforce at the Dinoyo Community Health Center has an average of 66.23%, indicating that the workforce understands enough regarding knowledge about fire. The attitude level of the workforce at the Dinoyo Community Health Center has an average of 85.98%, indicating that the workforce is in the good category. The attitude that must be taken in the event of a fire has been understood. This is because fire training and simulations have been carried out for all workers.

The total workforce preparedness index value based on the level of knowledge and attitude is 76.10% in the ready category. The most prepared workforce based on gender is female (30%). The most prepared workforce based on age is workers aged 36 – 45 years (late adulthood) at 39.13%. The most prepared workforce based on education level is workforce with junior high school education (50%) and D4 (50%). The preparedness of the most prepared workforce based on profession is ATLM, midwives, cleaning services and security guards, namely 50%. The preparedness of the most prepared workforce based on participation in fire training is those who have never attended training at 33.3%

Researchers hope that further research will be carried out regarding workforce preparedness management related to preparedness aspects, guidelines and policies, response plans, early warning systems, and resource mobilization.

**REFERENCES**

Alhamda S. Textbook of Health Sociology. Yogyakarta: Deepublish; 2015.

Apriansa, R., Dewi, R. K., & Puspito, H. (2022). Factors influencing the preparedness of health workers in disaster management literature review (Doctoral dissertation, Yogyakarta Aisyiyah University).

Arikunto, S. (2016). Research Procedures: A Practical Approach. Jakarta: Rineka Cipta.

Arrazy, S., Sunarsih, E., & Rahmiwati, A. (2014). Management System Implementation

Arsi Susilawati, 131711123049. (2018). Description of the Readiness of Health Workers in Disaster Management at Community Health Centers in Disaster Prone Areas in West Sumbawa Regency. <http://lib.unair.ac.id>. http://dx.doi.org/10.20473/ijchn.v4i1.12395

Cahyani, Y. F., & Suharini, E. (2021). Community Preparedness in Facing Fire Disasters in Kampung Pelangi, Semarang City in 2020. *Edu Geography*, *9*(1), 57-65.

Directorate General of Health Services. (n.d.). Retrieved February 8, 2023, from https://yankes.kemkes.go.id/view\_article/1507/mengenali-klas-kebakaran-dan-media-pedamamnya

Department of Manpower and Transmigration. (2016a). Training Module: General K3 Expert.

Farhan, O., Hillah, F., Firdaus, R., Kurnia, F. W., Zea, J. M., Nourma, M., Studi, P., Safety, D.-I., Work, K., & Health, F . (2022). Implementation of Work Safety Through Socialization and Training on the Use of Fire Extinguisher (Light Fire Extinguisher) at X. Swarna University: Journal of Community Service, 1(4), 462–467. https://doi.org/10.55681/SWARNA.V1I4.183

Fire Extinguisher Types | NFPA. (t.t.). Diambil 6 Mei 2023, dari https://www.nfpa.org/News-and-Research/Publications-and-media/Blogs-Landing-Page/NFPA-Today/Blog-Posts/2021/07/16/Fire-Extinguisher-Types

Karuniasih, N., Basri, Y., Murwanto, H., Sungkowo, A., Prastistho, B., Lestari, P., Pembangunan, U., Veteran, N. ", & Yogyakarta, ". (2022). Preparedness of Traditional Market Users Against the Threat of Earthquake and Fire Disasters at Beringharjo Market, Yogyakarta. Journal of Minerals, Energy and the Environment, 5(2), 1–15. https://doi.org/10.31315/JMEL.V5I2.4109.G4349

LIPI – UNESCO/ISDR. 2006. Study of Community Preparedness in Anticipating Earthquake and Tsunami Disasters. Jakarta.

Nursalam. (2017). Nursing Science Research Methodology (4th edition). Jakarta: Salemba Medika.

Causes of Fires and Classification of Fire Types - Paser Regency Fire Department. (n.d.). Retrieved February 8, 2023, from https://damkar.paserkab.go.id/detailpost/pembebab-kebakaran-dan-bisnis-jen-kebakaran

Minister of Public Works Regulation Number 26/PRT/M/2008 concerning Technical Requirements for Fire Protection Systems in Buildings and the Environment.

Regulation of the Minister of Manpower and Transmigration Number: PER-04/MEN/1980 concerning Requirements for Installation and Maintenance of Light Fire Extinguishers.

Regulation of the Minister of Manpower of the Republic of Indonesia Number: PER.02/MEN/1983 concerning Automatic Fire Alarm Installations.

PT. Indonesian Quality System. (n.d.). Retrieved February 8, 2023, from http://kiscerti.co.id/article/theori-segitiga-api-triangle-of-fire

Putri, S., Handini, M. C., Purba, A., Sitorus, M. E. J., & Siagian, M. T. (2022). THE RELATIONSHIP OF AGE AND WORKING PERIOD WITH DISASTER PREPARED ATTITUDE. PREPOTIF: JOURNAL OF PUBLIC HEALTH, 6(2), 1129-1134. https://doi.org/10.31004/prepotif.v6i2.4083

Ramadhani, N. R. (2023). Overview of the fire emergency response system in the Mahligai Sembilan building in 2022 (Doctoral dissertation, JAMBI UNIVERSITY).

Ramdani, R. T. (2022). THE RELATIONSHIP OF KNOWLEDGE, PERIOD OF WORK, AND FIRE TRAINING WITH THE FIRE EMERGENCY RESPONSE PREPAREDNESS OF WORKERS AT PT. VARIOUS MINES OF BOGOR.

Saputra, D. R. (2019). OVERVIEW OF MAN, METHOD, AND MACHINE FACTORS ON THE FIRE EMERGENCY RESPONSE SYSTEM AT THE EAST JAVA COMMUNITY EYE HOSPITAL UPT, 2019 (Doctoral dissertation, STIKES Dr. Soetomo Hospital Foundation, Surabaya).

Susanto, B. H., & Wahyuni, I. D. (2021, December). The Influence of Knowledge Level on Fire Disaster Preparedness among Heads of Families, Gadang Village, Sukun District, Malang City. In Conference on Innovation and Application of Science and Technology (CIASTECH) (pp. 577-584). <https://doi.org/10.31328/ciastech.v0i0.3355>

Y. Anwar, I. Setyasih and A. Risaldi, "Spatiotemporal Analysis of Building Fire Incidents in Samarinda City", GEOGRAPHY, vol. 9. no. 2, pp. 82-90, 2021.

Yanti, B., Wahyudi, E., Wahiduddin, W., Novika, R. G., Arina, Y. M., Martani, N. S., & Nawan, N. Community knowledge, attitudes, and behavior towards social distancing policy as preventing transmission of COVID-19 in Indonesia. J Indonesian Health Administration. 2020; 8(2):4–14. http://dx.doi.org/10.20473/jaki.v8i2.2020.4-14