Level of Knowledge And Skill of Banda Aceh SAR Office Staff on Flood Handling Prosperity in Aceh Province

Mahrizal[1], Azmeri[2], Nizamuddin[3]

Masters in Disaster Science, Post Graduate Program at Syiah Kuala University Banda Aceh[1]
Civil Engineering Department, Faculty of Engineering, Syiah Kuala University[2]
Department of Informatics, Faculty of Mathematics and Natural Sciences Syiah Kuala[3]

{mahrizal@gmail.com}

Abstract. This study addresses the level of knowledge and skills of the Banda Aceh SAR Office staff towards preparedness for handling flood victims in Aceh. Knowledge and skills are the main factors and are key to SAR staff preparedness in carrying out relief actions during disaster emergencies. The purpose of this study was to determine the level of knowledge and skills of the staff of the Banda Aceh SAR Office on preparedness in handling flood victims in Aceh Province. The method used is quantitative research methods. The data in this study consisted of primary data (field research) and secondary data (library research). The results of data analysis showed that the level of knowledge and skills of the Banda Aceh SAR Office staff still did not reach 50% with a good level of knowledge. The preparedness level of the Banda Aceh SAR Office staff was reviewed from the knowledge and skills parameters into the prepared category with 67 preparedness index values. For this reason, adequate SAR training / training with an integrated curriculum tailored to the needs in the field was needed. The training / training methods were participatory, applicable, it is expected to improve skills and influence the attitudes and mindsets of every Banda Aceh SAR Office staff.

Keywords: *Knowledge, Skills, Preparedness, Search and Rescuer (SAR)*

1 Introduction

Disasters that occur often have an impact on the pattern of life of the people so that it takes an action to help, and save victims of the disaster. The main factors that can lead to such disasters lead to large casualties and losses, namely a lack of understanding of the characteristics of hazards, attitudes or behavior that result in a decrease in natural resources, lack of early warning information that results in unpreparedness and disability or inability to deal with disasters [1].

For this reason, proper and fast handling is needed so that the number of victims can be minimized. Based on this, there is a need for a volunteer group to handle this. Office staff Search And Rescue Banda Aceh Cityinvolved in handling and minimizing victims of natural disasters must have the ability to master skills to provideBasic Life Support and recognize trauma and non-trauma emergencies that are often encountered in disaster victims.

Erratic field conditions require good knowledge and skills from each Banda Aceh SAR Office staff in carrying out their duties. So that as early as possible can seek the right and fast action, how to do it and what equipment is effective to use in the face of disasters. Based on the results of research conducted by Hamidi [2] stated that the Aceh SAR team preparedness index in terms of knowledge, attitudes, training effectiveness and resources owned by the SAR team

are in the ready category and still need to continue to improve preparedness by increasing knowledge and intensity of training in facing disaster.

Preparedness management in RI Law No. 24 of 2007 focuses on 5 aspects, namely planning, organizing, action, control, evaluation [4]. According to Turban & Volonino [5] the knowledge management framework consists of creating knowledge, capture knowledge, refining knowledge, store knowledge, managing knowledge and disseminate knowledge. While the goal of education globally must be specified as more specific and conical goals, so as to further clarify educational goals such as the ability to read, the ability to interpret and skills to distinguish facts from hypotheses [6].

PERKA BASARNAS nomor 1 tahun 2018 stated that thetarget response time for disaster management was 1 hour and the percentage of victims that could be saved was 90%. To achieve this target every Basarnas staff must have a good level of knowledge and skills in carrying out assistance to disaster victims. Regulation of the Head of National Search and Rescue Agency Number PK. 2 of 2017 defines competency as the ability and characteristics possessed by an employee in the form of knowledge, skills, and behavioral attitudes needed in carrying out tasks professionally, effectively, and efficiently.

Based on the foregoing , the purpose of this study was to determine the level of knowledge and skills of staff at the Banda Aceh SAR Office on preparedness in handling flood victims in Aceh Province.

2   Methods

This study uses amethod quantitativebased on survey / questionnaire activities with a closed list of questions. The population in this study were all staff / employees of the Banda Aceh SAR Office, with a population of 62 people. The sampling technique was carried out using the cluster sampling method, namely in determining the sample the researcher took from each field / division in the Banda Aceh SAR Office. In this study the data collected consisted of two types, namely primary data and secondary data.

An assessment of the level of preparedness of the Banda Aceh SAR Office staff in handling flood victims in Aceh using index analysis. The index number in this study follows the parameter index made by LIPI - UNESCO / ISD (2006) [8], the higher the index number means the higher the level of preparedness of the subject under study. The index categories can be seen in Table 1 below;

Table 1. Preparedness level category

No.	Index value	Category
1	81 - 100	Very Ready
2	66 - 80	Ready
3	40 - 65	Poorly prepared
4	Less than 40 (0 - 39)	Not ready

(source: LIPI - UNESCO / ISDR, 2006)

Assessment for each question item using a Likert scale Sugiyono[9] by giving the highest value 5 for a very good answer, the value 4 for the answer is good, the value 3 for the answer is enough, the value 2 for the answer is not good, and the value 1 for the answer is not good. To get the preparedness index value use the following formula:

$$P_n = \frac{f}{N} \times 100 \qquad (1)$$

For the maximum number of scores (N) or criteria (if all statements get the highest score) each aspect is obtained by using the following equation;

Total maximum score = k x l x m   (2)

3   Result and Discussion

3.1 Knowledge level

Knowledge level is always used as the beginning of an action in carrying out SAR tasks, so that the capacity of knowledge is expected to be the basis of actions taken by every staff of the Banda Aceh SAR Office in the field. A helper must have the knowledge and training in carrying out relief actions for disaster victims to sustain life when patients experience life-threatening conditions. The results of the study on the level of knowledge of Banda Aceh SAR Office staff indealing with floods can be seen in Figure 1 below:
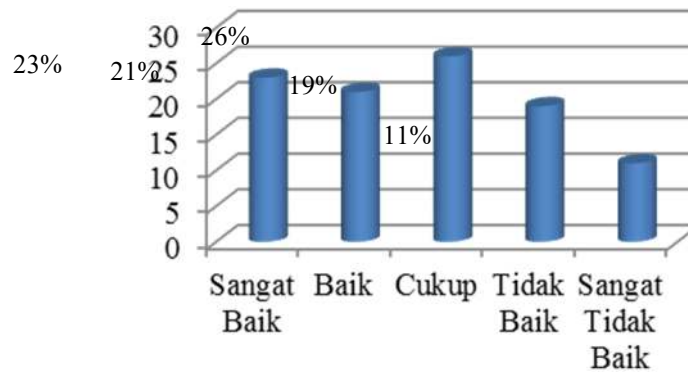

Figure 1. Knowledge level (%)

Based on Figure 1 above shows that as many as 14 people (23%) SAR Office staff in Banda Aceh had the level of knowledge is very good, as many as 13 people (21%) staff of the Banda Aceh SAR Office have a good level of knowledge, 16 people (26%) Banda Aceh SAR Office staff have sufficient level of knowledge, 12 people (19%) Banda SAR Office staff Aceh has a poor level of knowledge and as many as 7 people (11%), the Banda Aceh SAR Office staff has a level of knowledge that is not good and very bad because this staff does not know about disaster characteristics, disaster management and does not know about mass rescue operation. ignorance is because some of the respondents have not received socialization about it. Individuals who have good disaster knowledge tend to have better preparedness than individuals who have bad knowledge of disaster [10].

3.2   Skills

In carrying out SAR operational activities require SAR technical knowledge and skills as well as several disciplines as support / support. Every staff of the Banda Aceh SAR Office is required to have good skills in every SAR operation. The results of the study on the skill level of Banda Aceh SAR Office staff in dealing with floods can be seen in Figure 2 below:

Figure 2. Staff skill level (%)

Based on Figure 2 above shows that as many as 14 people (23%) Banda Aceh SAR Office staff have had very good skills in carrying out efforts to save flood victims, as many as 14 people (23%) Banda Aceh SAR Office staff have good skills, as many as 15 people (24%) Banda Aceh SAR Office staff have sufficient skills, as much as 12 people (19%) Banda Aceh SAR Office staff had bad skills and as many as 7 people (11%) Banda Aceh SAR Office staff had very bad skills. This difference in the skill level of the Banda Aceh SAR Office staff was greatly influenced by the training that was followed. The more often or the more training that is followed, the more one's skills will increase.

According to Widyatun[11] Widyatun (2005) a person's skills are influenced by motivation which encourages a person to take action in accordance with the procedures that have been taught, experiences that will strengthen one's ability to carry out an action (skill) and expertise possessed by someone will make skilled in certain skills.

3.3 Preparedness

To determine the level of preparedness in this study it is necessary to calculate the number of maximum scores (N) or criteria (if all statements get the highest score) each aspect is obtained by using the following equation;
Number of max scores (N) = k x l x m
= 5 x 90 x 62
= 27900
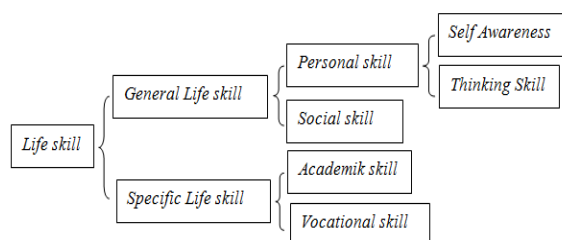
With the total score score obtained by each aspect (f) of 18663 then to get the preparedness index value use the following formula:

$$P_n = \frac{f}{N} \times 100 \qquad \text{then obtained}$$

$$P_n = \frac{f}{N} \times 100$$
$$= \frac{18663}{27900} \times 100$$
$$= 0{,}67 \times 100$$
$$= 67$$

Based on the results of the above calculations, it can be concluded that the preparedness level of the Banda Aceh SAR Office staff is reviewed from the knowledge and skills parameters into the category prepared with 67 preparedness index values. This is in line with the results of research conducted by Hamidi[2] on Team preparedness. Searchand Rescuer (SAR) Aceh in the face of earthquake and tsunami disasters with a preparedness index value of 67.87 with ready categories.

The results of Hely[12] study state that training has a significant relationship to disaster management preparedness, meaning that the more often training is followed by someone it will improve skills and preparedness in the face of disasters. Dewi & Wawan [13] states that training that is followed will improve expertise that will provide benefits to the organization quickly.

To improve the knowledge and skills of Banda Aceh SAR Office staff in carrying out SAR Operations must have life skill a good. To achieve a good life skill, the implementation of the learning system and the SAR training curriculum must be based on the development of needs in the field by using participatory and applicative methods.distribution Life skill according to Dikmenum (2005) is as follows:

Figure 3. distribution Life skill according to Dikmenum (2005)

Based on Figure 3 above every Banda Aceh SAR Office staff in handling flood victims must have personal skills, thinking skills, socials skills, academic skills, and vocational skills. Vocational life skills are special skills or expertise related to a particular field of work. The development of these skills is a part of life skills that is very important for a rescuer, both for now and in the future. Life skills are in accordance with the four pillars of education launched by Unesco namely learning to know (learning to know), learning to do or work (learning to do), learning to become self (learning to be) and learning to live in a community (learning to live together).

To support the achievement of the four pillars above, a learning approach is needed that develops life skills. This can be done by facilitating the Banda Aceh SAR Office staff with contextual learning activities, namely by linking local potentials around. Life skills bring every Banda Aceh SAR Office staff to the actual events that occurred on the field when the flood struck and provided staff from the Banda Aceh SAR Office to be able to find alternative solutions to overcome the problems faced in the field without being depressed as skills that everymust possess rescuer.

4   Conclusion

The level of knowledge of the Banda Aceh SAR Office staff still has not reached 50% with a good level of knowledge, so that ongoing activities or training are needed to improve disaster knowledge. While the skill level of the Banda Aceh SAR Office staff also still has not reached 50%, having a good level of skill is needed for strategic efforts to improve skills, especially in efforts to save victims of disaster.

The preparedness level of the Banda Aceh SAR Office staff was reviewed from the knowledge and skills parameters into the prepared category with 67 preparedness index values. For this reason, adequate SAR training / training with an integrated curriculum tailored to the needs in the field was needed. The training / training methods were participatory, applicable, it is expected to improve skills and influence the attitudes and mindsets of every Banda Aceh SAR Office staff.

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