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Monitoring the Nutritional Status of Toddlers with LiLA Ribbons in Disaster Situations in Candipuro Village Lumajang

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A B S T R A C T

The impact of the eruption of Mount Semeru in Lumajang Regency, East Java, was in the form of environmental damage and caused many fatalities. The problem that needs to be addressed is related to the adequacy of nutrition for high-risk groups of people, including infants and toddlers, whose nutritional status and food intake are often not monitored. As an effort to overcome nutritional problems that arose after the eruption of Mount Semeru in Candipuro Village, Lumajang Regency. Monitor the nutritional status of toddlers aged 6-59 months who are at the evacuation site in Candipuro Village by measuring the Upper Arm Circumference (LiLA) using the Toddler LiLA tape and carried out for 1 month from the preparation stage, implementation to activity reporting. This Community Service activity was carried out at the Candipuro Village evacuation site with a target of 25 toddlers aged 6-59 months, and the results showed that the Toddler LiLA measurement that was carried out was declared successful because the toddlers whose nutritional status was monitored were confirmed to have good nutritional status while in the evacuation location. This activity is prioritized for toddlers because infants and toddlers are the most vulnerable group and require special nutritional treatment in the technical response to health crises due to disasters. It is stated that monitoring toddlers' growth must be carried out every month so that if toddlers experience nutritional problems, they can be handled more quickly and resolved.

INTRODUCTION

The impact of an eruption disaster is in the form of environmental damage and causes mass death. The magnitude of the impact includes the attention of all levels of society to be prepared in the face of this eruption disaster. Physically, this eruption disaster impacts residents' health, especially babies, toddlers, children, and mothers. Damage to facilities and infrastructure in the community environment, residents' settlements, and including existing health facilities so that physical and non-physical assistance is very much needed in this situation.

Problems often overlooked are related to the adequacy of nutrition for disaster survivors (Sitompul, 2018). Decreased nutritional status after a disaster can occur due to limited health services, interruption of food distribution channels, poor sanitation conditions, infectious diseases, and psychiatric disorders that appear after a disaster (Kemenkes, 2012). In a disaster situation, infants and toddlers have not received adequate and comprehensive special attention, causing many infants and toddlers who experience malnutrition which can progress to malnutrition such as marasmus or kwashiorkor, which must be intervened immediately (Salmayati et al., 2016).

Other nutritional problems that can also arise besides malnutrition in toddlers are babies who do not get breast milk (ASI) because they are separated from their mothers, limited availability of local food, which can exacerbate existing conditions, and worsening nutritional status, which is not monitored properly due to poor conditions. The chaotic environment after the disaster and the abundance of baby formula milk and milk bottles. These nutritional problems are exacerbated by the lack of knowledge in making food, especially for infants and toddlers. In contrast, infants and toddlers are a vulnerable group that requires appropriate nutritional management according to their age to reduce the risk of morbidity and mortality (UNICEF, 2010).

Lumajang Regency, East Java, geographically and demographically, is an area that is prone to natural and non-natural disasters. Starting from tectonic earthquakes, volcanic eruptions, tsunamis, floods, and tornadoes. In East Java, several active volcanoes frequently erupt or experience eruptions (BPBD Jatim, 2021). The eruption of Mount Semeru in Lumajang Regency resulted in victims of the disaster, namely the entire community, being evacuated and living with all limitations, including access to healthy food and clean environmental sanitation. Conditions like this will impact changes in the nutritional status of disaster victims, especially in infants and toddlers, pregnant women, nursing mothers, and the elderly. So it is necessary to take nutritional measures in the form of monitoring the nutritional status of toddlers aged 6-59 months with anthropometric measurements in the form of Upper Arm Circumference (LiLA), because LiLA is the most effective and accurate method of measuring nutritional status to determine whether or not there is a problem of acute malnutrition in toddlers. A disaster is a risky situation or condition that can affect the nutritional status of children under five who experience acute malnutrition. To ensure that all children under five who are in evacuation sites are in good nutritional status and do not experience nutritional problems, it is necessary to monitor the LiLA of children under five (Tanjung & Wahyuni, 2021).

METHOD

As an effort to overcome nutritional problems that arose after the eruption of Mount Semeru in Candipuro Lumajang Village, which occurred in November 2021, the community service team, in collaboration with UNICEF conducted licensing and discussions with the Lumajang District Government with assistance from the Research and Development Institute. Community Service (LPPM) Nahdlatul Ulama University Surabaya. Then after the licensing process was completed and obtaining a permit supported by the East Java Provincial Health Office and the East Java Regional Disaster Management Agency (BPBD), the community service team monitored the nutritional status of infants and toddlers using anthropometric measurements using the Upper Arm Circumference (LiLA) band.

LiLA Toddlers measurements were carried out directly at the location of the evacuation site for victims of the Mount Semeru eruption in Candipuro Village, Lumajang Regency. The implementation of this activity was carried out by carrying out a program in the form of monitoring the nutritional status of toddlers by measuring the Toddler's Upper Arm Circumference (LiLA Toddler) using colored LiLA tape facilitated by UNICEF, targeting all toddlers aged 6-59 months who are in the Candipuro Lumajang Village evacuation site. 2 lecturers carried out this community service activity from the Undergraduate Nutrition Study Program along with student representatives from the Undergraduate Nutrition Study Program, Faculty of Health, UNUSA, on December 14-16, 2021.

After the activity was completed, the next activity was to analyze the results of community service and compile activity reports in the form of a report on community service activities to meet the output requirements of the activity. The community service team will also publish the results of community service in the form of articles in the mass media and community service articles. The entire activity was carried out for approximately one month, from the preparatory stage to the post-activity.

RESULT AND DISCUSSION

This community service activity was carried out in Candipuro Lumajang Village with a target of 25 toddlers. The results of this community service show that the intervention program was successful. Community service activities by measuring the nutritional status of toddlers aged 6-59 months using the LiLA toddler ribbon. This community service program has succeeded in monitoring the nutritional status of all infants and toddlers who were in a disaster situation with the eruption of Mount Semeru. It was found that the nutritional status of toddlers was two people experiencing malnutrition with the results of the yellow LiLA measurement and some with good nutritional status with LiLA measurement results green. The community service team can work well together to monitor nutritional status to prevent nutritional problems caused by disasters, especially in toddlers in Candipuro Lumajang Village. The need for health and food services will increase in post-disaster areas. Special response management to fulfill the nutritional status of disaster survivors needs to be the concern of all parties, especially the nutritional needs of infants, toddlers, children, pregnant women, and the elderly vulnerable to post-disaster illnesses (Tumenggung, 2017). Decreased nutritional status or nutritional problems experienced by disaster survivors can cause other health problems. Limited health facilities, inadequate evacuation conditions, and poor sanitation can also worsen disaster survivors' health status (Suryani & Sianturi, 2013).

The worsening nutritional status of disaster survivors can also occur because food aid is often late. Local food availability exacerbates existing conditions and is exacerbated by a need for knowledge in preparing locally made food, especially for infants and toddlers. Infants and toddlers are the most vulnerable group and require special nutritional care. Infants and toddlers require special health and nutrition monitoring

(Sulistiawati & Taufiqqurrahman, 2020). In the 2007 Health Crisis Response Technical Guidelines, it is stated that monitoring the growth of children under five should be carried out every month, and then assess nutritional status and compare with basic data.

Collecting and monitoring anthropometric data to determine the nutritional status of disaster survivors, especially toddlers, is urgently needed and continues to be monitored so that if anyone experiences malnutrition or other nutritional problems, they can be addressed immediately. Research conducted by Nasrul et al., (2019) on toddlers in evacuees in Buluri Village, Ulujadi District, Palu City, there was an increase in nutritional problems, such as an increase in malnutrition rates from before the disaster. The triggers for the increase in post-disaster nutritional problems in refugee camps are the lack of foodstuffs with guaranteed nutritional value, the unsanitary living environment after the disaster, which can cause illness, as well as the parenting style and lack of parental income, which results in a less post-disaster economy. This underlies the importance of collecting anthropometric data, which is useful for monitoring the nutritional status of infants and toddlers in disaster situations (Sulistiawati & Taufiqqurrahman, 2020). Based on these references, this community service program needs to be continued by establishing a nutrition post in every village, which is a place of refuge due to the eruption of Mount Semeru and requires collaboration with the Lumajang District Government so that monitoring the nutritional status of toddlers by measuring toddlers' LiLA in evacuation sites can prevent the occurrence of nutritional problems that can occur due to disasters.

The next stage plan that the Community Service Team will carry out with partners is to establish further collaboration regarding community service and research by what partners expect. Further community service can be carried out by monitoring toddlers' nutritional status in post-disaster situations with efforts to overcome nutrition and health problems. In addition, further activities can also be carried out by establishing a nutrition post in every village in the area affected by the eruption of Mount Semeru, which contains activities to monitor the nutritional status of refugees.

Figure

One of the activities carried out by the Community Service Team is measuring the toddlers aged 6-59 months based on the Upper Arm Circumference (LiLA) using the LiLA Toddler band, which is shown in the image below:



Fig. 1 (a,b,c) Measurement of the Nutritional Status of Toddlers aged 6-59 months in Evacuation
Source: Community Service Team (2021)

CONCLUSION

Overall, Community Service activities successfully monitored nutritional status with the LILA band in toddlers aged 6-59 months in a disaster situation at the Candipuro Lumajang Village refuge, which was affected by the Mount Semeru eruption. Toddlers in Candipuro Lumajang Village are monitored for nutritional status to prevent nutritional problems from arising because of the eruption disaster, which is influenced by several factors such as the lack of availability of balanced nutritional food, clean water, a clean environment and poor parenting style due to the mother's psychology being hampered due to the impact of the post-natal situation Disaster.

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