# DEVELOPMENT AND MANAGEMENT OF HEALTHY COMMUNITY KITCHENS AND TRAUMA HEALING FOR SARAMPAT VILLAGE REFUGEE POST CIANJUR EARTHQUAKE

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#### ABSTRACT

Earthquakes can disturb food access in the affected area that can lead to increase food insecurity and malnutrition. Community kitchen is one of programs to maintain refugee nutritional status by community empowerment and increase food access. This community service was aim to develop and manage community kitchen for Sarampat Village Refugee Post Cianjur Earthquake. Some activities was done including preparation, construction, organizing of community kitchen, trauma healing, and at the end, handover community kitchen management to refugees. A total 190 refugees live in temporary settlements. In the second day, refugees's breakfast, lunch, dinner was made in the community kitchen. Trauma healing for children in the temporary settlement was also conducted to recover from post-earthquake trauma. Education to manage the kitchen, Kitchen utensil, and Balance nutrition menu for 7 days was given for the refugee in the last day. Some obstacles were faced during the implementation relate to food supply. Overall, all the activities had been done well and can be implemented for similar conditions.

Keywords: Nutritional Fulfillment, community kitchen, post-earthquake, trauma healing

#### 1. INTRODUCTION

Natural or manmade disasters can cause food insecurity due to damage to food systems, food reserves, and livelihood assets of people, including lack of access to safe and nutritious food, and disruption of food supply chains and distribution systems (Food and Agriculture Organization of the United Nations, 2015). Lack access of to hygiene, and sanitation and high food insecurity during emergencies can lead to increased incidents of malnutrition. The immune system can be affected due to acute malnutrition and become more susceptible to infection. Noncommunicable diseases can also be provoked by emergency situations where low availability of health food and lack access of medical care (WHO, 2020). Based on a previous study during post earthquake in Nepal, the prevalence of underweight, stunting, and wasting increased (Dhoubhadel et al., 2020). Another study in post earthquake situation revealed that the food consumed were mostly have low nutritional value (Herrera-Fontana et al., 2020).

One of the programs to increase nutritional intake that can be implemented post-disaster is community kitchen. Community kitchen was defined as a community-based cooking program designed to address hunger and food insecurity in the local community through regular events for families (Cruzada et al., 2022). rather than creating and perpetuating a cycle of dependency on emergency food relief, community kitchen focuses on strengthening participant resilience for people experiencing food insecurity and social isolation. Rather than focusing solely on nutrition education or cooking skills, their process strives to cultivate food skills and empower individuals. Based on studies community kitchen can increase nutritional intake and social interaction of its participator as well as their families (Iacovou et al., 2013). Community kitchen could increase food security and enhance nutritional status that targets SDGs 2 and 3, which are zero hunger and excellent health and well-being (Cruzada et al., 2022).

Disaster and traumatic events also have negative impact on psychological aspect of human being (Lotzin et al., 2023). One of the most vulnerable groups pre and post-disaster are children. A disaster is an unusual incident that is difficult to comprehend. The impact of disaster for children is emotionally confusing and frightening therefore children require extensive instrumental and emotional support from adults (Zain et al., 2018). Community services in Lombok and Sunda strait used trauma healing to decrease the trauma and suffering for children's victims (Hunainah & Riswanto, 2021; Sumasto et al., 2019).

The earthquake in the Cianjur area occurred on 21<sup>st</sup> November 2022 until 22<sup>nd</sup> November 2022 followed with 140 aftershocks (Supendi et al., 2022). Temporary data from the National Agency for Disaster Countermeasures shows that 268 people died, 58,362 people were evacuated to temporary resettlement, 1,083 people were injured, and infrastructure was damage. So that due to the earthquake that occurred, the people affected by the disaster lived in evacuation tents and this became a national concern for carrying out post-disaster relief and rehabilitation efforts. Based on problem identification in Evacuation villa, Sarampat Village, Cugeneng District, there's lack of access to

balanced nutrition food for the refugee. The psychological impact of disaster also problem to this situation. One of the solutions that was chosen to overcome the problem was developing and managing community kitchen and trauma healing for refugee. This community service was aim to increase food access by community kitchen during emergency and conduct trauma healing for childreen.

# 2. METHOD

The community service was conducted on 12 - 14 December 2022 in Evacuation Villa, Sarampat Village, Cugenang District, Cianjur Regency post Cianjur earthquake. The development of a healthy kitchen begins with the preparation stage. The preparation stage included identifying our partner's problems and designing activities to so solve them. The purchase of kitchen tools and materials such as cooking utensils, spices, and dry food ingredients also was done to prepare for constructing a public kitchen. Coordination with partners to collect the number of refugees and the age distribution of refugees was conducted.

Implementation of activities includes the construction of refugee community Kitchens, Making Balanced Nutrition Menus, Distribution of kitchen production dishes, Management of community kitchens, and assistance with child trauma recovery through play activities. The first day of implementation was done to prepare the operation of the community kitchen for Cianjur earthquake refugees. The activities included organizing community kitchens, collecting data on refugees, making menus, and purchasing cooking tools and ingredients. Refugee data collection was carried out by the team to estimate the amount of food to be made. The data collected is in the form of the name of the head of the family, the address, and the number of children under five and adults in one household. After getting an estimate of the number of refugees, the meals menu was designed to make a shopping list. On the second day, food production for refugees began. Trauma healing for children was done on the second day. On the third day, education and coordination to manage the community kitchen were done with our partner.

Monitoring and evaluation were carried out to measure and ensure the target of activities was achieved. Evaluation and monitoring of activities are carried out by involving implementing members, village community leaders, and the head of Sarampat Village. The results of the evaluation will be used as the basis for the mentoring process for the continuation of the program in the future.

### 3. **RESULTS AND DISCUSSION**

Based on problem identification, several solutions were made such as the construction of a community kitchen, distribution and donation of food for refugees, and management of a community kitchen. At the preparation stage, 190 data of refugees were collected to identify how much food that needs to be prepared. A total of 190 refugees lived in villa settlements and were dominated by adults.

	Characteristic	n
Adult		
Female		62
Male		80
Children		48

Table 1. Refugee characteristics in Vila settlement N=190

Construction of community kitchens for refugees followed healthy kitchen management. The kitchen has sufficient lighting and adequate circulation because the production section is located outside the villa. The community kitchen has a sanitation system to meet water needs and waste management. Kitchen equipment has also been provided by the team for food production.

Food ingredients were purchased daily because lack of storage equipment and refrigerator and prepared by kitchen staff. The preparation of the food took 2-4 hours and the food was distributed at breakfast, lunch, and dinner time. The weekly cycle menu was made with 2100 kcal daily needs per day per person (Cruzada et al., 2022). The menu in one meal consists source of carbohydrates, protein, and vegetables. Around 300 meals for breaks, lunch, and dinner were made and distributed to refugees for 2 days. The packing used oil paper and rubber bands or using other packing materials and was carried out after the entire food was prepared. After packing, the food is distributed directly to refugees or through coordinators of evacuation sites.



#### Figure 1: Food packing and distribution

After the establishment of the community kitchen management team, the team began to be provided with knowledge of planning and preparing menus for adults, especially infants and toddlers and were given examples of balance nutrition menus to be consumed for 7 days. The team also given education about the kitchen equipment that used for large scale food production. For producing the meals, team was devided into prepare, produce, and finishing groups. On the second day, the team was given the task of producing the planned menu. The Provision of healthy menus for 7 days for refugee can be used and implemented to maintain optimal nutritional status. At the same time, Trauma healing activities for children were carried out to entertain and relieve the stress faced by refugees. Children refugees were given knowledge about protecting themselves from sexual violence by playing games and storytelling. On the last day, the public kitchen was handed over along with food processing equipment and raw materials for refugees and team community kitchen management so they could continue community kitchen activities. The children seems happy to play with volunteer and enthusiastic to hear the story telling.



Figure 2: Trauma healing for children refugee



Figure 3: Handover community kitchen from the team to refugees

Several benefits obtained by running community kitchen. Availability of tools and ingredients for cooking can facilitate access to healthy food for refugees. Community kitchen that follows the principles of a healthy kitchen can improve work efficiency and food safety in the kitchen then can increase overall health of refugees (Iacovou et al., 2013). Economic impact of community kitchen includes less food production cost due to more massive food production. Provision of tools, materials, and food can decrease the economic burden for refugees. The social impact of this activity is in the form of increasing collaboration between refugees to manage community kitchens. This activity is also to increase community competence in managing healthy community kitchens during disaster conditions. In this case, community kitchen activities can increase closer social interaction for refugees.

A literature review discusses several social health and nutrition benefits of community kitchen. Food security and nutritious food intake increased for community kitchen participants due to various foods including fruit and vegetables produced and consumed. Running community kitchen also improved cooking skills, confidence, and satisfaction. Additionality independence, dignity, and community involvement of the refugee impacted positively (Iacovou et al., 2013). A study from Syrian refugee and kitchen workers in Lebanon found community kitchen has a positive impact on food security, and financial status, which leads to improved psychological health. Kitchen staff and refugees gained a greater sense of empathy and friendship during that time (Ibrahim et al., 2019).

Some constrains faced during developing and running community kitchen. The refugees feel uncomfortable running community kitchen and desire to continue manage per family kitchen. To solve this problem, community approachment can be done through Neighbourhood Head. In addition, limited time and cost of activities are also obstacles in implementing the program. Another obstacle is the continuity of the logistics supply of raw materials for production which can cause kitchen activities to not be able to run sustainably during the evacuation process. This is because the supply of logistics materials for food for refugees still depends only on assistance from various parties. Limited time and budget also a constrain in this activity. The refugee have not got proper training in preparing food for infant and young children. Hence, it is recommended that the next activity be devoted to this matter.

The long-term effect of trauma post-disaster can influence psychological condition that leads to alterations in behavior and persistent mental health issues. Post-disaster trauma affects not only adults but also children (Hunainah & Riswanto, 2021). Trauma healing for disaster victims was needed to reduce fear, anxiety, and restlessness in children. Feelings of anxiety, fear, panic, and restlessness are signs of PTSD. Trauma healing aims to provide psychological support and happiness for disaster victims (Amilia et al., 2022). Some methods of trauma healing can be done. Trauma healing activities post Lombok earthquake for children used games, story telling and psychological services for refugee (Sumasto et al., 2019). Trauma healing post-Semeru eruption used art therapy for children's expressing emotion and optimism post-disaster (Amilia et al., 2022).

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## 4. CONCLUSION

The development and management of a community kitchen for refugee of the earthquake in Kampung 18, Sarampat Village, Cugenang District, Cianjur Regency was done well and succeeded in forming a healthy kitchen management organization. However, healthy kitchen activities still depend on logistics supply so there was possibility that the kitchen stops doing activities due to the absence of raw material logistics. Playing activities with the concept of playing while learning provided knowledge to children about preventing sexual violence and helping to recover from post-earthquake trauma.

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