

## Article

# Policymakers' perspectives on responding to the elderly's mental health needs in post-disaster situations

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## Abstract

**Background:** Mental health issues following the occurrence of disaster remain neglected area especially for older people group. The purpose of this study was to explore stakeholders' perspectives on post-disaster management related to the elderly's mental health needs.

**Design and methods:** This qualitative case study was conducted between June and October 2020. The investigators conducted in-depth interviews with policymakers who were in charge of disaster management at national, provincial, and regional levels. The policymakers were selected through purposive sampling. A policy analysis was conducted by the investigators to answer the research question.

**Results:** The results were presented based on actor, content, context, and process. The actors engage in intersectoral collaboration between disaster agencies, health agencies, and social agencies. The content is largely comprehensive; however, the disaster management policy should not neglect to address mental health conditions after a disaster event. The context is the vulnerability and risk of the elderly in terms of experiencing physical and mental issues after a disaster, which should be considered by policymakers in Indonesia. The process is the development of disaster management policies, which are influenced by cultural, economic, political, and international factors.

**Conclusions:** This study reveals that stakeholders need to pay attention to the mental health issue of elderly in national and regional policy, particularly during post-disaster situations. In addition, posttraumatic stress in post-disaster situations should be highlighted in order to formulate a better aged care policy.

## Introduction

Indonesia is the largest archipelagic country in the world, located within the ring of fire. These conditions make Indonesia vulnerable to potential disasters, especially natural disasters. In the last three decades, Indonesia has been struck by several disasters, including landslides, tsunamis, volcanic eruptions, floods,

fires, earthquakes, and drought.<sup>1</sup> According to the National Agency for Disaster Management (*Badan Nasional Penanggulangan Bencana*; BNPB), during 2018, there were 4,231 natural disaster victims in Indonesia.<sup>2</sup> In mid-2018, Indonesia's Lombok Island was rocked by an earthquake with a magnitude of 7.0 on the Richter scale. The earthquake affected five areas, namely Central Lombok, East Lombok, Mataram City, North Lombok, and West Lombok. This natural disaster caused 460 deaths, 7,733 injured victims, and 417,529 people evacuated. The most severely affected area was North Lombok Regency (*Kabupaten Lombok Utara*; KLU), where 396 people died, and 178,122 people (81.5% of the population) had to be evacuated, 12,546 buildings were seriously damaged, with the total loss estimated to be 2.7 trillion rupiahs.<sup>3</sup> Moreover, there were 315 elderly who have trauma and fear due to the earthquake disaster.<sup>4</sup>

Responding to the elderly's needs during emergency events such as natural disasters has become a major global concern.<sup>5</sup> The elderly are the most vulnerable group compared with younger people during natural disasters, not only in terms of functional capacity but also psychosocial factors (mental, emotional, and social).<sup>6,7</sup> A disaster situation can be even more burdensome for those living with physical and/or cognitive impairments and social limitations.<sup>8</sup> Recovery for the elderly tends to take longer due to their decreased sensory states, physical disorders, and chronic medical conditions.<sup>9</sup> Moreover, individual characteristics such as visual impairment, chronic disease, and others characteristics of the elderly make them more vulnerable. Physical conditions cause the elderly to be weaker than all groups, especially the younger ones at all stages of a disaster, including post-disaster.<sup>6,10</sup> Compelling evidence indicates that the elderly are more likely to experience post-traumatic stress disorder (PTSD) and adjustment disorder than younger people.<sup>11</sup> This evidence also indicates that appropriate mental health services for the elderly are urgently needed following post-disaster.

The previous study conducted by the authors revealed that disaster factors associated with PTSD among the elderly who survived the Lombok earthquake included chronic illness comorbidities, primary health care utilization, and occupational status.<sup>12</sup> Negative consequences of PTSD among older people ranged from

### Significance for public health

*This study analyzes stakeholders' perspectives on improving post-disaster mental health aged care policy in Indonesia. This research provides information and policy recommendations for the government to promote coordination at the national and regional levels and the establishment of comprehensive post-disaster programs for the elderly.*

psychiatric disorders to cognitive and physical health problems.<sup>13</sup> Moreover, the authors found trauma-focused cognitive behavioral therapy (TF-CBT) is an effective intervention for the elderly to reduce depression and improve their quality of life.<sup>14</sup> Despite the availability of effective treatment, the provision of PTSD services for the elderly following post-disaster still requires policy support to ensure its sustainability and widespread implementation. Furthermore, existing policy for responding to the psychological needs among PTSD of the elderly in post-disaster situations is limited. The response of policymakers in Indonesia toward the needs of the elderly in post-disaster areas is yet to be discussed in the literature. This study aims to explore stakeholders' perspectives on the needs on mental health services after disaster event among elderly.

mission. For each policymaker, interviews were conducted in separate places and rooms according to the stakeholders' location and guided using focus group discussions. Researchers conducted interviews according to the main tasks and roles of each policymaker. The interview transcripts were read independently by two investigators to identify thematic findings. The participants' answers were triangulated with available documents related to disaster management in Lombok Island and Indonesia. The documents used in the analysis process include the disaster management act, which discusses disaster management policies and strategies in Indonesia. The investigators obtained informed consent from all the participants. This study was approved by the Research Ethics Committee of the Faculty of Nursing, Universitas Airlangga (1371-KEPK).

## Design and methods

This study uses a qualitative policy analysis based on Walt and Gilson's policy triangle analysis framework, in which four policy aspects are covered, namely actor, content, context, and process (Table 1).<sup>15</sup> Between June and October 2020, the investigators conducted semi-structured in-depth interviews with policymakers from the central and local governments. The interview process used an interview guide that focuses on in-depth information about post-disaster programs/policies, post-disaster management for the elderly, advantages and challenges of post-disaster programs, and cross-sectoral roles in post-disaster management. The central government representatives came from the Ministry of Health (MoH) and Ministry of Social Affairs (MoSA), while the local government representatives came from the Regional Agency for Disaster Management (*Badan Penanggulangan Bencana Daerah*; BPBD) and the Social Services Office (*Dinas Sosial*; Dinsos), both of which are based in the provincial capital of West Nusa Tenggara (Table 2). These representatives were purposively selected based on their roles and contributions in policymaking during disaster events. The in-depth interviews, which lasted for around an hour for each participant, were recorded and transcribed with their per-

## Results

### Content

Disaster management policies in Indonesia are mostly derived from the Law Number 24 of 2007 on Disaster Management (Disaster Management Act). Disaster management operation is a comprehensive strategy that includes establishing policies on disaster risk development and activities on disaster prevention, emergency response, and rehabilitation, for which the central and local governments are responsible<sup>16</sup>. The central government is responsible for: i) disaster risk reduction, ii) the protection of the community from the impact of disasters, iii) the fulfillment of the rights of refugees and communities affected by disasters according to minimum and fair service standards, iv) the recovery of conditions after the impact of disasters, v) the allocation of the disaster management budget, and vi) the maintenance of authentic and credible documents/archives. Meanwhile, the local government is responsible for: i) ensuring the fulfillment of the rights of communities and refugees affected by disasters, ii) protecting communities from disaster impacts, iii) reducing disaster risk, iv) guiding disaster risk reduction through development programs, and v) allocating disas-

**Table 1. Walt and Gilson's policy triangle analysis framework.<sup>15</sup>**

Framework	Description
Actor	The individuals, groups, and organizations involved in and affecting the policy process.
Content	The substantial details of a particular policy and how it outlines its subjects.
Context	The factors associated with policymaking at local, national, and international levels.
Process	The process of policymaking from initiation and formulation to implementation and evaluation.

**Table 2. Affiliation and location classification for key informants.**

Affiliation for key informants	Location for key informants
1. Ministry of Health	National Government
2. Ministry of Health	National Government
3. Ministry of Social Affairs	National Government
4. Regional Agency for Disaster Management	Local Government
5. Social Services Office	Local Government
6. Social Services Office	Local Government
7. Social Services Office	Local Government
8. Public Health Office	Local Government
9. Public Health Office	Local Government

ter management funds from regional revenue and expenditure budgets. In this disaster management policy, the elderly are included as one of four vulnerable groups, alongside infants and children, pregnant women and breastfeeding mothers, and people with disabilities. These groups are meant to receive priority in rescue, evacuation, security, health, and psychosocial services.

Disaster management in the MoH is regulated by the health crisis center agency, which refers to the Disaster Management Act (2007).<sup>16</sup> Disaster management policies and strategies for the post-disaster phase focus on strengthening disaster management governance at the central and regional levels through cross-sector coordination. The policies established by the government focus on efforts to reduce the risk of a health crisis by improving the quality of post-disaster activities. This policy is supported by strategic efforts that are carried out through a legal framework to ensure that health crisis management is comprehensive at the pre-disaster, emergency response, and post-disaster stages.<sup>17</sup>

The Republic of Indonesia's Government Regulation Number 21 of 2008 on the Disaster Management Administration (Disaster Management Regulation, 2008) is one of the regulations that governs disaster management. Disaster management is a strategic plan that is carried out through disaster prevention efforts during the rehabilitation phase. One of the special concerns in this regulation is the elderly, who are classified as a vulnerable group. Vulnerable groups, which consist of infants, children under five years old, pregnant or nursing mothers, children, the elderly, and people with disabilities, are given priority protection in disaster management. The priority concerns include evacuation, security, health, and psychosocial services, which are carried out by agencies or institutions and coordinated by the head of BNPB/BPBD.

Post-disaster management in Indonesia has become the focus of government attention. This is evidenced by the adequacy of disaster policies at the post-disaster stage. It cannot be denied that the elderly have become central in government studies and analysis in health service activities. Even though disaster management already exist, covering people of all ages, post-disaster management policies, especially those on mental health among the elderly remain a neglected issue in the policy.

## Context

The Lombok earthquake weakened the health service system and damaged 52 health facilities (one hospital, 11 health centers, 35 auxiliary health centers, four maternity village huts, and one pharmacy building). Based on data from the Crisis Center of the MoH, there were 304,526 affected older people (under the classification of vulnerable groups). Accordingly, the Government of Indonesia took several actions, including: i) providing a stimulation fund of 59.5 billion IDR for rebuilding houses through BNPB for 1,191 beneficiaries, ii) rehabilitating houses for 1,000 families, iii) rehabilitating and reconstructing public facilities such as hospitals and schools starting two weeks after the disaster, iv) fully committing to supporting the emergency response and recovery phases, and v) initiating emergency classes/schools. The rehabilitation and reconstruction were carried out in five issues, namely housing, productive economy, social, infrastructure, and cross-sectoral.<sup>3</sup>

The formation of regulation is influenced by several factors including culture, economy, politics, and internationality. Indonesia is a country with a lower middle-income economy. Although the data shows that the poverty rate continues to decline, there are still many elderly people who need support from the government. As much as 74.15% of the elderly population are at high risk of experiencing economic vulnerability, because they have insufficient work opportunities, inadequate social protection, unfilled rights at work, and less opportunities to express their opin-

ions.<sup>18</sup> In addition, the informal sector still dominates the workforce.<sup>19</sup> Most older people in Indonesia (84.29%) work in the informal sector; for this reason, they need special attention to secure social protection, a legal basis for employment, and decent work benefits.<sup>18</sup> In Indonesia, political policy implications for the elderly focus on long-term care strategies. Following the Presidential Decree No. 21/2008, the elderly became one of the groups that receive protection from the government. Some of the programs implemented include social protection assistance and public health insurance. In disaster situations, the international sector through international organizations provides technical support and assistance in disaster management in Indonesia.<sup>20</sup>

## Process

After discussions on the matter, disaster management law was enacted in 2007 to promote and protect public welfare for times of disaster. This law was formulated to fill the gap in disaster management in Indonesia by implementing a strong and comprehensive legal basis and following developments in the situation and the needs of the community. The aim is to foster disaster management in a planned, coordinated, and integrated manner.<sup>16</sup> In response to developments in the current situation, MoH Regulation Number 17 of 2018 stipulates the implementation of disaster management in certain circumstances. This regulation was established for certain emergency states that have not been stipulated in previous regulations, that is, determining when further action is still needed to reduce disaster risk and wider impacts. The authority over this assignment was given to BNPB, which carries out disaster management.

As a disaster management agency at the regional level, BPBD coordinates with local governments, especially the West Nusa Tenggara government, to formulate disaster management policies in disaster risk reduction. Local governments need to pay attention to synergy between relevant stakeholders to minimize losses caused by disasters. The synergy and coordination should be carried out, namely cooperation or collaboration to achieve good results and be responsible for the roles of each actor in disaster management, whether government, private, or community.<sup>21</sup> The level of stakeholder involvement depends on the level of risk, disaster preparedness, and emergency management capacity.<sup>22</sup> In addition, communication is an important aspect to which the government needs to pay attention to achieve effective disaster management. The outcome of weak communication among policymakers can be seen in the poor data on elderly people gathered by the government (both central and local).

## Actor

The process of preparing and formulating disaster management policies in Indonesia involves national and local stakeholders. The national stakeholders consist of the government, including the MoH, MoSA, BNPB, and the Ministry of Women's Empowerment and Child Protection (MoWECP), and non-governmental agencies. Each stakeholder has a specific role. The MoH, as the highest health institution, is responsible for helping communities to recover their public health conditions,<sup>23</sup> and the MoSA focuses on handling social rehabilitation.<sup>24</sup> BNPB is a government agency that has a policy formulator role coordinating the implementation of disaster management activities,<sup>16</sup> and the MoWECP is responsible for protecting women in disaster situations.<sup>25</sup> On the other hand, non-governmental agencies include professional institutions and non-governmental organizations (NGOs). In terms of local government, it is the actor with an important role in the formulation of policies in the affected areas. This actor also plays a role assisting management organizations in certain community groups, including

the elderly. In the context of disaster management for the elderly, post-disaster programs are carried out by the Public Health Office (*Dinas Kesehatan*; Dinkes), Dinsos, and BPBD.

## Discussion

The vulnerability of the elderly in disaster situations has become a concern globally. Disaster conditions can be a situation that disturbs and threatens the life of the elderly.<sup>26</sup> The elderly are at a high level of disaster risk based on their physical and mental capacity, psychosocial, disability, cognitive decline, loss of life-long friends and spouses, and isolation, which all affect older people's ability to respond to disaster situations which require quick and impactful action on their psychological conditions.<sup>27-29</sup> The World Health Organization emphasized paying greater attention to the needs, vulnerabilities, and abilities of the elderly in post-disaster conditions. In reality, many elderly people do not receive the support and care that they need. This is in line with a previous study<sup>12</sup> in Indonesia that the current regulation (Law 24 of 2007) concerning disaster management to protect the elderly as a vulnerable group is still not optimal. The government has yet to see management and support for vulnerable groups in real terms, both central and regional. The elderly as a vulnerable group has not prioritized disaster management or are still equated with other non-elderly disaster victims.<sup>4,16</sup> This has also resulted in the WHO urging countries to prepare and develop disaster management schemes for the specific needs of the elderly. This evidences showed that the specific handling of disasters in the draft law on the elderly needs to be emphasized.

The government as the policymaker plays an initial and important role in disaster management.<sup>30,31</sup> The central government (MoH, MoSA, BNPB, and MoWECP) and local governments (Dinkes, Dinsos, and BPBD) both carried out their roles well in the earthquake disaster management in Lombok, as they followed the duties and functions of the central and regional governments, which included implementing disaster management, involving the pre-disaster, emergency response, and post-disaster stages.<sup>16</sup> The government as the policymaker at the national level must be able to formulate policies, plans, and national programs for disaster management for the elderly.<sup>27</sup> At present, to meet the tasks, the government needs to increase its capacity in disaster management. According to Djalante *et al.*, government capacity can be assessed by disaster risk reduction management, response, and recovery.<sup>32</sup> To improve government capacity, it is necessary to strengthen the role of the central and regional governments at every stage of a disaster, especially after a disaster. This strengthening can be done in several aspects, including strengthening coordination between stakeholders, maintaining policies and planning for disaster management on physical and non-physical problems, increasing support and guidelines for vulnerable groups such as the elderly in meeting daily and health needs.

Policies play an important role in the success and sustainability of disaster management.<sup>33</sup> Disaster management in Indonesia has been meticulously prepared at each stage of a disaster; however, post-disaster management policies that focus on the mental health of the elderly during disasters are lacking. Most of the regulation addressing the basic and safety need as priority, while the issue of mental health taking place on the long term intervention. This is supported by government regulation number 21 of 2008, which describes psychological rehabilitation as one of the activities carried out after a disaster. Psychological recovery is carried out through family counseling and consultation assistance services, trauma recovery, and psychological recovery. However, this activ-

ity is not clearly explained in relation to psychological programs targeting the elderly.<sup>23</sup> This finding is in accordance with previous research that states that national and regional disaster management planning must consider the needs and risks associated with the elderly.<sup>29</sup> Psychological/mental impact analysis has been taken into account by many countries. However, preparedness programs related to psychological health during disasters are still few in number and are more focused on physical needs (financial and medical assistance) and national infrastructure such as material shortages, human resources, and technology.<sup>34,35</sup> Several reasons why the elderly need special planning in disaster management include their physical vulnerability, chronic disease, deficits in mobility, cognitive and sensory capacities, and dependence on others. Lack of social support, low economic status, low education, and language barriers can also be reasons behind the vulnerability of the elderly during disasters.<sup>36</sup> Therefore, it is important that the government creates a program that considers the psychological needs of the elderly in Indonesia.

The formulation of a policy cannot be separated from cultural, economic, political, and international factors. This is in line with the fact that several contextual factors play a role in policymaking, such as political, social, cultural, and economic environments, both national and international.<sup>15,37</sup> Cultural factors are an element that should be considered in preparing disaster management regulations. This can be seen in Law no. 24 of 2007, which stipulates that, in disaster impact reduction, it is necessary to develop a culture of disaster awareness in the community and respect for the local culture in disaster management in the community.<sup>16</sup> Cultural perceptions are an intrinsic factor related to perceptions and behavior, and it is important to involve and pay attention to cultural factors to increase disaster resilience in the community. In Indonesia, local culture is related to ethnic and linguistic differences. It can be a factor that can accelerate the delivery of disaster management information to some groups being poorly informed. Community involvement and participation can accelerate the governance and improvement of disaster management.<sup>38</sup> Community involvement can start from building public awareness and education about disaster management to reduce severe risks when a disaster occurs. The formation of a volunteer team is also one of the implementations of the action plan for community involvement. The community can help direct the supervision and monitoring of all the matters related to disaster management.<sup>39</sup>

Disaster management cannot be done individually or institutionally. The success of a disaster management program requires collaboration across sectors. All elements of government and society are at risk from disasters, so various roles and responsibilities are needed in disaster management for all ages, including the elderly.<sup>40</sup> Collaborative efforts across sectors are carried out by either government organizations or non-governmental organizations (NGOs).<sup>34</sup> This is in line with the Public-Private Partnerships (PPP) theory which has long been implemented for the government to involve private actors in supporting government infrastructure and services.<sup>41</sup> As a policymaker, the government can develop a regulatory framework that enhances private sector or NGO participation through PPP. The participation of private sectors in government projects such as disaster management is essential to reach out greater access to the community. The primary role of the private sector is imperative especially on the country with geographical challenges such as Indonesia.<sup>42</sup> Cooperation and coordination across sectors in the health sector aim to improve outcomes and to create a more effective, efficient, and sustainable health system. In the mental health sector, the government through the Ministry of Health and Social Affairs can play a significant role in formulating policies that regional institutions can implement to

handle post-disaster mental health. Several elements play a major role in strengthening the disaster health system, namely efforts and actions in target populations, multinational organizations, government and regional activities in the affected disaster areas, armed forces, academic institutions, institutions, and the media.<sup>43</sup> The main challenge of implementing post-disaster management is effective and comprehensive coordination. The government needs to increase transparency by promoting innovative mechanisms and connections across sectors through integrated disaster risk governance as a disaster management system.

## Conclusions

The elderly is a vulnerable population that needs special attention from the government and stakeholders. First, we discovered that there is lack of policy and planning for managing mental problems after a disaster, because the government still prioritizes managing physical disaster victims. Second, coordination and comprehensive programs are key to the success of an effective and sustainable mental health program following the disaster. Moreover, transparency and promotion of mechanisms and open communications across sectors should be enhanced. Policy recommendations related to post-disaster management include optimizing health and social services, empowering productivity among the elderly, and improving security, monitoring, and evaluation should be addressed for the future program.

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