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THE ROLE OF COMMUNITIES IN PROTECTING VULNERABLE GROUPS DURING THE DISASTER EMERGENCY RESPONSE PHASE

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Abstract

Vulnerable groups, including children, pregnant and breastfeeding women, older adults, persons with disabilities, and individuals with chronic diseases, face greater risks during disaster emergency response due to limited access to information, evacuation support, assistance, and health services. Although previous studies have examined community resilience, disaster preparedness, risk communication, and the protection of vulnerable groups, they have primarily focused on individual interventions, specific vulnerable populations, or particular disaster phases. Few studies have comprehensively synthesized the forms of community roles, implementation mechanisms, and determinants of effective community-based protection specifically during the disaster emergency response phase. This study addresses this gap through a structured literature review. Relevant publications were identified through Google Scholar using predefined Indonesian and English keywords related to community roles, vulnerable groups, disaster protection, community resilience, inclusive evacuation, and risk communication. Publications from 2021–2026 were selected based on predefined inclusion and exclusion criteria, while earlier methodological references were retained to strengthen the review framework. The selected literature was screened for relevance and analyzed using thematic synthesis. The findings indicate that communities play essential roles in identifying vulnerable groups, facilitating risk communication, supporting inclusive evacuation, distributing basic needs, providing health and psychosocial support, and linking affected populations with referral services. These roles are strengthened by community participation, social capital, local leadership, accurate data, cross-sector collaboration, and inclusive communication, whereas limited volunteer capacity, inadequate training, weak coordination, and insufficient evacuation facilities remain major barriers. Strengthening community capacity is therefore essential for more effective, inclusive, and sustainable disaster emergency response.

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INTRODUCTION

Natural disasters and public health emergencies such as floods, earthquakes, volcanic eruptions, forest and land fires, and disease outbreaks often create multilayered disruptions in community life. Their impacts are not limited to physical damage and economic disruption, but also include interrupted access to health services, disrupted medicine supply chains, and limited population mobility due to damaged infrastructure or displacement conditions (Eduat et al., 2025; Kurniawan, 2026; Kurniawan et al., 2025). In such situations, the most affected groups are usually vulnerable groups, including children, pregnant and breastfeeding women, older adults, persons with disabilities, and individuals with chronic diseases who require continuous care (Kurniawan & Fandayati, 2023; Kurniawan et al., 2024; Dewanti & Hartarto, 2022). This vulnerability arises from a combination of biological factors, such as the need for special care, social factors, such as dependence on caregivers and structural factors, such as barriers to access and information.

Experiences across various contexts show that risks among vulnerable groups often increase precisely at the most critical moments, such as during evacuation, relocation to safer places, and adaptation to conditions in shelters. A scoping review of evacuation and transportation barriers confirms that these obstacles are not merely related to distance, but also to inaccessible information, limited vehicles or caregivers, costs, and health conditions that restrict mobility (Matsuo et al., 2025). The practical consequences may include delays in reaching health facilities, delayed assistance, and an increased risk of complications among people with chronic diseases (Matsuo et al., 2025). In major disasters, forcibly displaced populations are also at risk of experiencing layered health burdens, involving a combination of physical health problems, mental health problems, and limited basic facilities, which prolong recovery and increase the need for protection (Mohammadi et al., 2023).

On the other hand, the protection of vulnerable groups in disasters cannot rely entirely on formal systems, such as government institutions and health services, because formal capacity is often under pressure during the emergency response phase. Therefore, in recent years, research and policy attention has shifted toward the role of communities as actors capable of responding quickly and remaining close to people's daily lives. Community roles may include identifying and registering vulnerable groups, supporting evacuation and transportation, organizing inclusive shelters, distributing basic needs and medicines, and facilitating referrals to health facilities. A study on risk communication and community engagement during the pandemic highlights the importance of social and community service organizations in reaching vulnerable groups through trusted and contextually appropriate channels (Wojczewski et al., 2023). This finding is relevant to disaster situations because risk communication problems, especially for groups facing barriers to information access, often determine the speed and effectiveness of protection.

Strengthening the role of communities is also associated with improved household preparedness. A meta-analysis of preparedness interventions shows that social support, education, and behavior change approaches can enhance community preparedness, which in turn helps reduce the impact on the most vulnerable groups (Amberson et al., 2023). More conceptually, community engagement models for disaster preparedness emphasize that citizen participation, local networks, and cross-sector coordination are prerequisites for ensuring that protection strategies are implemented effectively rather than remaining merely administrative procedures (Johnston et al., 2022). This is increasingly important in climate-related disasters, which tend to be recurrent and prolonged. Policy analysis on health adaptation for climate-related disasters highlights the need to strengthen coordination, local capacity, and policies that are sensitive to vulnerable groups (Oktari, 2019; Oktari et al., 2022).

The Indonesian context offers additional lessons because disasters are often multi-hazard in nature and recur in many regions. Several studies from Indonesia show that preparedness is influenced by knowledge and risk awareness, as well as by the importance of collaboration with community leaders and local organizations. An online survey examining the relationship between disaster awareness and preparedness in Indonesia reported an association between the level of awareness and preparedness, indicating the need to strengthen more systematic community-based programs (Hargono et al., 2023). At the program level, the implementation of a community health nursing-based disaster preparedness training model has been reported to improve community capacity in disaster-prone areas, thereby strengthening the argument that improving the competence of local actors can serve as a key component of protection (Sofyana et al., 2024).

In addition to preparedness, the protection of vulnerable groups also requires a more inclusive and responsive approach to specific needs. A study on disability and disasters in East Java emphasizes that a merely symbolic approach is insufficient; stronger accessibility, meaningful participation, and concrete support mechanisms are needed to ensure that persons with disabilities are not left behind during disasters (Setijaningrum et al., 2024). Among children, research in Timor shows that children's knowledge and awareness of disasters and climate change need to be considered as part of community protection and preparedness (Kiling et al., 2024). In Aceh, a study on the implementation of the Sendai Framework at the subnational level reveals the dynamics of local capacity and coordination challenges that determine whether the protection of residents, including vulnerable groups, is truly integrated into practice (Sufri et al., 2024).

Despite these important contributions, the existing literature remains fragmented. Most previous studies examine community resilience, disaster preparedness, risk communication, disability inclusion, psychosocial support, or health services as separate topics. Other studies focus only on specific vulnerable groups or particular disaster phases. Consequently, limited attention has been given to comprehensively synthesizing how communities protect vulnerable groups specifically during the disaster emergency response phase, including what roles communities perform, how these roles are implemented, and which

factors facilitate or hinder their effectiveness. This fragmentation limits the development of an integrated evidence base for community-based disaster response. Although recent reviews emphasize community resilience, communication, and partnerships (Van Kessel et al., 2025; Vandrevala et al., 2024; Sahani et al., 2024), they do not comprehensively integrate these three dimensions within the context of protecting vulnerable groups during disaster emergency response. Therefore, this study addresses this important gap by synthesizing current evidence on community roles, implementation mechanisms, and influencing factors.

To address these gaps in the existing literature, this study examines the role of communities in protecting vulnerable groups during the disaster emergency response phase by addressing three research questions: (1) What are the principal forms of community roles in protecting vulnerable groups during disaster emergency response? (2) How are these community roles implemented in affected communities and evacuation shelters? (3) What factors facilitate and hinder the effectiveness of community-based protection for vulnerable groups? To answer these questions, this study synthesizes the existing literature on community participation, implementation mechanisms, and the supporting and inhibiting factors influencing community-based protection. The findings are expected to provide a comprehensive scientific basis for developing more inclusive, responsive, and evidence-informed disaster emergency response strategies that better address the needs of vulnerable groups.

METHOD

This study employed a literature review to identify, analyze, and synthesize scientific evidence regarding the role of communities in protecting vulnerable groups during disaster situations. A literature review enables researchers to obtain a broader understanding of conceptual developments, forms of intervention, and the supporting and inhibiting factors influencing the protection of vulnerable groups based on previous research findings. This method can also be used to map, assess, and integrate existing knowledge within a particular field of study (Snyder, 2019).

The literature review was conducted in a structured manner by referring to the principles of literature searching, selection, and synthesis. The literature review approach requires systematic stages to ensure that the sources used are relevant to the research objectives and capable of providing a strong scientific basis (Booth et al., 2016). In addition, the review process also considered the principles of literature mapping, namely identifying research questions, searching for relevant literature, selecting appropriate literature, charting the data, and presenting the review findings narratively and thematically (Arksey & O'Malley, 2005).

The literature sources in this study consisted of national and international journal articles, research methodology books, books or documents related to disaster management, and scientific publications relevant to the topics of vulnerable group protection, disaster preparedness, community resilience, risk communication, inclusive evacuation, psychosocial support, and health services in emergency situations. The main empirical literature reviewed in this study covered publications from 2021 to 2026, while earlier methodological and foundational references were included to support the review framework.

The literature search was conducted using keywords in both Indonesian and English. The Indonesian keywords included "peran komunitas," "kelompok rentan," "perlindungan bencana," "kesiapsiagaan bencana," "evakuasi inklusif," "penyandang disabilitas dan bencana," "dukungan psikososial," and "resiliensi komunitas." The English keywords included "community role," "vulnerable groups," "disaster protection," "disaster preparedness," "inclusive evacuation," "community resilience," "risk communication," "psychosocial support," and "disaster recovery." The literature search was conducted using Google Scholar as the primary scientific database.

The inclusion criteria in this review were: (1) journal articles, books, or scientific publications discussing the role of communities in the context of disasters or public health emergencies; (2) literature discussing the protection of vulnerable groups, such as children, pregnant and breastfeeding women, older adults, persons with disabilities, and individuals with chronic diseases; (3) literature discussing the pre-disaster, emergency response, or recovery phases; (4) publications available in Indonesian or English; and (5) publications with direct relevance to the research objectives. The exclusion criteria were: (1) publications that did not discuss the role of communities; (2) articles that discussed disasters in general without any connection to vulnerable groups; (3) non-scientific popular publications; and (4) literature lacking adequate methodological information or substantive content.

Following the literature search, all retrieved records were screened to determine their relevance to the objectives of this review. The screening process involved reviewing the titles, abstracts, and full texts of the identified records based on the predefined inclusion and exclusion criteria. Studies that did not address community roles in protecting vulnerable groups during disaster situations, were outside the scope of the review, or lacked sufficient methodological or substantive information were excluded. The remaining studies were considered eligible and included in the thematic synthesis Studies meeting all eligibility criteria were subsequently included in the data extraction and thematic analysis.

Data extraction was conducted using a standardized data extraction form to ensure consistency in collecting and organizing information from each selected study (Peters et al., 2020). The extracted data included the author(s), publication year, study location, disaster type, vulnerable group(s), study design, forms of community roles, implementation mechanisms, supporting factors, inhibiting factors, and key findings relevant to the objectives of this review.

The extracted data were subsequently analyzed using a thematic coding framework following the thematic synthesis approach proposed by Thomas and Harden (2008). The analysis comprised three stages: (1) open coding to identify recurring concepts related to community-based protection of vulnerable groups; (2) axial coding to organize similar concepts into broader analytical categories; and (3) thematic synthesis to develop the main themes of the review. The coded data were synthesized into three overarching themes: (1) forms of community roles in protecting vulnerable groups, including identification and registration, risk communication, inclusive evacuation, distribution of basic needs, psychosocial support, continuity of health services, and referral mechanisms; (2) implementation mechanisms of community roles across the disaster preparedness, emergency response, and recovery phases; and (3) supporting and inhibiting factors influencing the effectiveness of community-based protection. The synthesized findings were interpreted narratively to provide a comprehensive understanding of community contributions to protecting vulnerable groups during disaster emergency response.

RESULTS AND DISCUSSION

The findings presented in this section are derived from the thematic synthesis of the selected literature using the data extraction and coding procedures described in the Methods section. The synthesis generated three overarching themes corresponding to the objectives of this study: (1) forms of community roles in protecting vulnerable groups during the disaster emergency response phase; (2) mechanisms for implementing community roles in affected areas and evacuation shelters; and (3) supporting and inhibiting factors influencing the effectiveness of community-based protection. Each theme is discussed in relation to the evidence identified in the reviewed literature. Table 1 summarizes the three themes and their principal findings, which are discussed in greater detail in the following sections.

Table 1. Summary of Themes Identified Through Thematic Synthesis

Theme	Main Findings
Forms of community roles	Rapid identification of vulnerable groups; risk communication; inclusive evacuation; distribution of basic needs; psychosocial support; referral to health services
Implementation mechanisms	Local coordination; needs assessment; accessible communication; inclusive evacuation; service provision; referral and monitoring
Supporting factors	Community participation; social capital; local leadership; cross-sector coordination; availability of vulnerable group data
Inhibiting factors	Limited volunteer capacity; inadequate accessibility; insufficient evacuation facilities; weak coordination and program sustainability

1. Forms of Community Roles in Protecting Vulnerable Groups During the Emergency Response Phase

To address the first objective of this study, namely to identify the forms of community roles in protecting vulnerable groups during the disaster emergency response phase, the thematic synthesis identified four major forms of community involvement. These themes emerged through the coding and thematic synthesis process described in the Methods section and represent recurring patterns reported across the reviewed literature.

During the disaster emergency response phase, communities play an important role as the actors closest to affected populations, particularly vulnerable groups. Groups such as children, pregnant and breastfeeding women, older adults, persons with disabilities, and individuals with chronic diseases often face barriers in accessing information, evacuating, receiving assistance, and continuing health services. Therefore, the protection of vulnerable groups cannot rely solely on formal systems but must also be strengthened through active community involvement, as communities possess a better understanding of local social conditions, geographical characteristics, and the practical needs of affected residents.

The first form of community role is rapid data collection and identification of special needs. In emergency situations, community health workers, volunteers, community leaders, and local authorities can help identify residents who require priority assistance, such as pregnant women, older adults, persons with disabilities, and people who need regular medication. The role of community health workers and families is important in guiding vulnerable groups, including pregnant women, to understand evacuation steps and emergency response plans (Asrawaty et al., 2024). Family preparedness among households with pregnant women as a vulnerable group has also been shown to be important in facing earthquake disasters (Madeni et al., 2024).

The second form of community role is risk communication. Communities can deliver information on early warnings, evacuation routes, assembly points, health posts, and aid distribution through local channels that are easy to understand. Disaster risk communication needs to be carried out collaboratively so that messages are not only delivered but also understood and followed by the community (Hidayat & Assegaf, 2025). In the context of disaster management, an integrated communication and information model is also needed to ensure that communities receive clear guidance and are not exposed to inconsistent information (Lestari et al., 2021).

The third form of community role is inclusive evacuation and mobility support. Communities can assist vulnerable groups in moving to safe locations, provide companions, arrange community vehicles, and ensure that children, older adults, pregnant women, and persons with disabilities are not left behind. Strengthening the capacity of vulnerable groups through community-based programs shows that training, simulations, and the establishment of disaster preparedness groups can improve readiness in facing disasters (Muhaemin et al., 2022; Yanti et al., 2025).

The fourth form of community role is the fulfillment of basic needs, health services, medicines, and psychosocial support in evacuation shelters. Communities can assist in distributing food, clean water, infant supplies, assistive devices for persons with disabilities, and routine medicines. In addition, community volunteers can provide initial psychosocial support through assistance, recovery activities, and Psychological First Aid for disaster survivors (Kharima et al., 2022). Communities serve as a bridge between vulnerable groups, aid posts, health facilities, and formal referral systems. This role demonstrates that the protection of vulnerable groups during the emergency response phase must be carried out rapidly, inclusively, and based on actual needs in the field.

2. Mechanisms for Implementing Community Roles in Affected Areas and Evacuation Shelters

To address the second objective of this study, the thematic synthesis examined how communities implement their roles in protecting vulnerable groups during disaster emergency response. The synthesis identified several interconnected implementation mechanisms, including local coordination, rapid needs assessment, risk communication, inclusive evacuation, provision of basic services, and referral to formal health services.

The mechanisms for implementing community roles in protecting vulnerable groups in affected areas and evacuation shelters are carried out through coordination, data collection, communication, basic service provision, and continuous monitoring. During the emergency response phase, communities are the actors closest to survivors and are therefore able to respond more quickly in recognizing the needs of children, pregnant and breastfeeding women, older adults, persons with disabilities, and people with chronic diseases. This role is important because the capacity of government institutions and health facilities is often under pressure due to damaged infrastructure, limited personnel, and the increasing number of victims requiring assistance (Eduat et al., 2025; Kurniawan et al., 2025).

The first mechanism is the establishment of local coordination involving village officials, neighborhood leaders, community health workers, volunteers, community leaders, religious organizations, and youth groups. This coordination aims to divide tasks clearly, including victim registration, evacuation, aid distribution, and health referrals. A community-based approach is considered effective because local communities understand the condition of the area, population characteristics, and groups that require special

attention (Nurcahyo et al., 2022). Community involvement also strengthens preparedness because social relationships and social capital can increase community resilience in facing disasters (Budhiana et al., 2026).

The second mechanism is rapid data collection and needs mapping for vulnerable groups. Community health workers and volunteers can identify residents who require priority assistance, such as pregnant women, older adults living alone, persons with disabilities, unaccompanied children, and people with chronic diseases who need regular medication. These data serve as the basis for determining evacuation priorities, logistical needs, and health services. The preparedness of community health workers, families, and vulnerable groups has been shown to play an important role in facing natural disasters, particularly among pregnant women who require special protection (Asrawaty et al., 2024; Madeni et al., 2024).

The third mechanism is risk communication that is easy to understand and accessible. Information on evacuation routes, assembly points, health post locations, and aid distribution schedules can be delivered through community leaders, loudspeakers, messaging groups, or local community health workers. Effective risk communication must consider the needs of vulnerable groups, such as using simple language for older adults, providing assistance for children, and ensuring accessible information for persons with disabilities (Hidayat & Assegaf, 2025; Wojczewski et al., 2023).

The fourth mechanism is inclusive evacuation and the fulfillment of basic needs in shelters. Communities can help mobilize vulnerable residents, provide companions, arrange transportation, and ensure that evacuation shelters are safe and accessible. In shelters, communities also assist in distributing food, clean water, infant supplies, medicines, assistive devices for persons with disabilities, and psychosocial services. Psychosocial support through Psychological First Aid is important to reduce anxiety, fear, and trauma among survivors, particularly children and older adults (Kharima et al., 2022).

The fifth mechanism is linkage with health services and referral systems. Communities can help record health complaints, monitor the use of routine medicines, accompany pregnant women, and report cases requiring immediate treatment to health posts or community health centers. This role is important for maintaining continuity of health services, especially for people with chronic diseases and other vulnerable groups (Iyer et al., 2025). The mechanisms for implementing community roles in affected areas and evacuation shelters must be carried out in an integrated manner through local coordination, rapid data collection, risk communication, inclusive evacuation, aid distribution, psychosocial support, and service referral. These mechanisms show that community-based protection of vulnerable groups is an important part of disaster emergency response that is inclusive and responsive to the actual needs of survivors.

3. Supporting and Inhibiting Factors in Community-Based Protection of Vulnerable Groups

To address the third objective of this study, the thematic synthesis explored the factors influencing the effectiveness of community-based protection for vulnerable groups during disaster emergency response. The reviewed literature consistently identified both supporting and inhibiting factors that affect the implementation of community roles in different disaster contexts.

Community-based protection of vulnerable groups in disaster situations is influenced by various supporting and inhibiting factors. These factors determine whether community roles can be carried out effectively in protecting children, pregnant and breastfeeding women, older adults, persons with disabilities, and individuals with chronic diseases. In the emergency response context, communities have a strategic position because they are closest to affected populations and directly understand local social, cultural, and practical needs.

The first supporting factor is strong community participation and engagement. Community participation enables the identification of needs, evacuation, aid distribution, and monitoring of vulnerable groups to be carried out more quickly. Community involvement also strengthens ownership of disaster programs, so that community members are not merely aid recipients but also actors in protection efforts. Johnston et al. (2022) emphasize that community engagement, local networks, and cross-sector coordination are important elements in disaster preparedness. This is consistent with recent studies stating that community-based approaches to disaster risk reduction can increase resilience when implemented through meaningful participation and in accordance with the local context.

The second supporting factor is the existence of social capital, such as solidarity, trust, mutual cooperation, and local leadership. In the Indonesian context, community resilience can also be strengthened through village-based disaster resilience approaches, including the adoption of Destana standards in

disaster-prone areas (Lessy et al., 2025). Social capital enables communities to assist one another, share information, and mobilize resources when formal assistance has not yet fully arrived. In evacuation settings, trust in community leaders, community health workers, or volunteers can accelerate the acceptance of information and compliance with evacuation guidance. Studies on community resilience show that the ability of communities to "include" and "connect" is important to ensure that emergency responses do not leave vulnerable groups behind (Van Kessel et al., 2025). In addition, trust-based communication and community feedback have been shown to strengthen the relationship between community resilience and public health emergency communication (Vandrevala et al., 2024).

The third supporting factor is cross-sector coordination. The protection of vulnerable groups cannot be carried out by communities alone; it requires support from local governments, community health centers, disaster management agencies, social organizations, educational institutions, religious organizations, and the private sector. Cross-sector coordination helps clarify the division of roles, accelerate health service referrals, and ensure that logistical assistance is more accurately targeted. Research on community partnerships in health crisis response emphasizes that community engagement is more effective when there is a clear relationship between context, mechanism, and program outcomes (Sahani et al., 2024). Other studies also show that cross-sector partnerships are important for protecting vulnerable populations, although such cooperation may face challenges related to differences in roles, priorities, and institutional working patterns.

The fourth supporting factor is the availability of accurate data on vulnerable groups. Good data help communities determine who should be prioritized for evacuation, who needs regular medication, who requires assistive devices, and who needs a companion. Without data, aid may fail to reach the right targets. Hargono et al. (2023) show that disaster awareness is associated with community preparedness, indicating that data collection and education should become part of community preparedness systems.

On the other hand, several inhibiting factors also exist. The first barrier is limited community capacity in terms of knowledge, training, logistics, and skills in handling vulnerable groups. Untrained volunteers may face difficulties in evacuating persons with disabilities, providing psychosocial support, or connecting patients with chronic diseases to health services. Evidence on Indonesian disaster preparedness cadres also shows that psychosocial and lifestyle-related factors influence health resilience, indicating the need to strengthen cadre capacity before disasters occur (Nuryana et al., 2025). The second barrier is limited accessibility of information. Disaster information that is not friendly to older adults, inaccessible to persons with disabilities, or not adapted to local languages can cause vulnerable groups to receive warnings and assistance too late. Studies on evacuation barriers show that transportation constraints, costs, health conditions, and inaccessible communication can worsen risks among vulnerable groups during disasters.

The third barrier is limited facilities and infrastructure in evacuation shelters. Shelters are often not disability-friendly, do not have lactation spaces, are insufficiently safe for children, and do not provide the special needs of older adults or people with chronic diseases. A study on disability and disasters in East Java emphasizes that the protection of persons with disabilities cannot be merely symbolic, but must be realized through accessibility, meaningful participation, and concrete support (Setijaningrum et al., 2024). The fourth barrier is weak coordination and program sustainability. If communities are not connected to formal systems, data collection, aid distribution, health referrals, and psychosocial recovery may be carried out in a fragmented manner. Community recovery and healing after climate-related disasters also require sustained practices, social support, and locally grounded recovery mechanisms (Keevers et al., 2024). Rowe and Nadkarni (2024) also show that the implementation of post-disaster mental health and psychosocial support in developing countries is often constrained by limited resources, coordination, and program sustainability.

Community-based protection of vulnerable groups will be effective if it is supported by active community participation, social capital, local leadership, data on vulnerable groups, cross-sector coordination, and inclusive access to information. Conversely, limited capacity, weak accessibility, inadequate shelter facilities for vulnerable groups, and unsustained coordination can hinder protection efforts. Therefore, community strengthening needs to be carried out before disasters occur through training, data collection, simulations, network strengthening, and integration with formal emergency response systems.

CONCLUSION

The findings of this literature review indicate that communities play a pivotal role in protecting vulnerable groups during the disaster emergency response phase. Through the thematic synthesis of the

selected literature, this study identified three principal findings that correspond to its research objectives. First, communities contribute to the protection of vulnerable groups through rapid identification and registration, risk communication, inclusive evacuation, distribution of basic needs, continuity of health services, psychosocial support, and referral to formal health services. Second, these roles are implemented through integrated mechanisms involving local coordination, needs assessment, accessible communication, evacuation assistance, aid distribution, continuous monitoring, and collaboration with formal referral systems. Third, the effectiveness of community-based protection is influenced by both supporting factors, including community participation, social capital, local leadership, accurate data on vulnerable groups, cross-sector coordination, and inclusive access to information, and inhibiting factors, such as limited volunteer capacity, inadequate training, weak coordination, inaccessible evacuation facilities, and limited access to health services and disaster information.

These findings demonstrate that community-based protection should be recognized as an essential component of disaster emergency management rather than merely a complement to formal institutional responses. Strengthening community capacity through preparedness training, systematic identification of vulnerable groups, regular disaster simulations, and stronger coordination with government agencies, health services, and humanitarian organizations can improve the inclusiveness and effectiveness of emergency response. Integrating community participation into disaster management policies is therefore essential to ensure that vulnerable groups receive timely, appropriate, and equitable protection throughout disaster situations.

This review provides an integrated thematic synthesis of the existing literature on community roles, implementation mechanisms, and the factors influencing the protection of vulnerable groups during disaster emergency response. Nevertheless, this study is limited to literature published in Indonesian and English and retrieved primarily through Google Scholar, which may have excluded relevant studies available in other scientific databases or languages. Future research is recommended to expand the range of databases, incorporate broader sources of evidence, and examine the effectiveness of community-based protection models across different disaster contexts and vulnerable populations to strengthen the evidence base for inclusive disaster management policies.

RECOMMENDATIONS

The findings of this literature review suggest that strengthening community-based protection for vulnerable groups requires systematic, inclusive, and sustainable strategies. The thematic synthesis demonstrates that effective protection depends on clearly defined community roles, well-coordinated implementation mechanisms, and enabling institutional and community conditions. Based on these findings, the following recommendations are proposed:

1. Strengthen community roles in protecting vulnerable groups. Communities should be empowered to undertake rapid identification and registration of vulnerable groups, disseminate disaster risk information, support inclusive evacuation, facilitate the distribution of basic needs, provide psychosocial support, and assist with referral to health services. Strengthening these roles through continuous capacity building will enable communities to respond more effectively during disaster emergencies.
2. Improve the implementation mechanisms of community-based protection. Local governments, disaster management agencies, primary health care centers, and community organizations should establish clear operational mechanisms that include coordinated task allocation, updated databases of vulnerable groups, accessible risk communication, inclusive evacuation procedures, continuity of health services, and referral systems. These mechanisms should be integrated into local disaster preparedness and emergency response planning.
3. Strengthen the supporting factors that enhance community effectiveness. Policies and disaster management programs should reinforce community participation, social capital, local leadership, accurate data management, cross-sector collaboration, and inclusive communication systems. These elements were consistently identified in the reviewed literature as essential for improving community-based protection of vulnerable populations.
4. Address the major barriers to community-based protection. Disaster management stakeholders should prioritize improving volunteer capacity through regular training, enhancing accessibility of disaster

information, developing inclusive evacuation shelters and facilities, and strengthening coordination among government agencies, health services, and community organizations. Addressing these barriers will improve the effectiveness and sustainability of community-based protection during disaster emergencies.

5. Promote future empirical research on community-based protection. Future studies should complement this literature review with field-based research to evaluate how community roles, implementation mechanisms, and supporting and inhibiting factors operate across different disaster contexts and vulnerable populations. Such studies would strengthen the empirical evidence needed to develop more effective and context-specific disaster management policies.

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