



Community Preparedness for Health Disasters: A Community Health Literacy Study

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ABSTRACT

Increasingly complex health disasters demand community preparedness that relies not only on the formal health care system but also on the community's capacity to understand and respond to health risks. Community health literacy is seen as a strategic element that shapes community preparedness through the collective ability to access, interpret, and use health information meaningfully. This study aims to analyze the role of community health literacy in building community preparedness for health disasters, as well as examining the social, cultural, and information access factors that influence it. The study used a qualitative approach with a literature review method, analyzing various scientific sources in the form of journal articles, academic books, and relevant policy documents. The analysis was conducted thematically to identify patterns, key concepts, and implications of health literacy for health disaster preparedness. The study results indicate that community health literacy serves as a cognitive and social foundation that strengthens preventive behavior, information management capabilities, and collective community responses. Social, cultural factors, and unequal access to information shape variations in health literacy that directly impact the level of community preparedness. This study emphasizes the importance of integrating community health literacy into health disaster preparedness strategies and policies to build adaptive and sustainable community resilience.

Keywords: Community Preparedness; Health Literacy; Health Disasters

INTRODUCTION

Health disasters are increasingly exhibiting unpredictable patterns along with intensifying social, environmental, and mobility changes globally. New infectious diseases, recurring outbreaks, and health crises resulting from environmental degradation demonstrate that health threats are no longer sporadic but systemic and ongoing. The impact of health disasters is not limited to increased morbidity and mortality but also impacts social resilience, economic stability, and public trust in health institutions. This situation places communities as crucial actors in health disaster prevention and response efforts. Reliance solely on formal health facilities proves insufficient when the scale of a disaster exceeds the capacity of the service system (Wahyudin et al., 2022). Active



community participation is a determining factor in reducing risk and accelerating recovery. Community preparedness is not formed instantly, but rather through a continuous process of learning and capacity building. This understanding points to the urgency of assessing community preparedness as a primary foundation of health resilience.

Community preparedness for health disasters is closely linked to the collective capacity to recognize risks and respond appropriately to threats. This capacity encompasses basic health knowledge, preventive attitudes, and practical skills in dealing with emergencies. Inadequate community responses are often rooted in limited information and misunderstandings about health risks (Sugiharto et al., 2025). Crisis situations actually increase the potential for poor decision-making when information is not critically understood. The rapid and massive flow of information has the potential to exacerbate panic if not accompanied by adequate literacy skills, demonstrating that community preparedness is not only structural, but also cognitive and social (Subandi & Noerjoedianto, 2021). This cognitive dimension is reflected in how communities process the health information they receive. The relationship between preparedness and health literacy is becoming increasingly relevant and warrants in-depth study.

Community health literacy serves as a crucial mechanism bridging health information with concrete community action. The ability to understand health messages determines the effectiveness of preventative behaviors undertaken independently and collectively. Communities with good health literacy tend to be more adaptive to changing situations and health recommendations (Baur & Prue, 2024). Awareness of health risks encourages consistent and sustainable protective behaviors. This process occurs not only at the individual level but also develops through social interactions at the community level. Local values, norms, and beliefs influence how health information is received and applied. Community health literacy provides a crucial space for strengthening solidarity and shared awareness. Strengthening health literacy ultimately contributes directly to increased preparedness for health disasters.

Health literacy inequality remains a serious challenge across communities. Differences in education levels, socioeconomic conditions, and access to information sources create significant variations in preparedness. Communities with limited access to health information tend to be more vulnerable to the impacts of disasters. This vulnerability is exacerbated by the limited ability to filter valid and credible information. Misinformation can spread more rapidly than evidence-based health messages (Avchen et al., 2019; Saifudin, 2023). This situation triggers irrational responses and potentially endangers public health. Community preparedness is unequal due to the uneven distribution of health literacy. This phenomenon highlights the need for special attention to health literacy as a social justice issue.

Social and cultural factors also influence a community's health literacy level. Community perspectives on health are often shaped by collective experiences and long-standing traditional practices. Local beliefs can be a

strength when aligned with health principles, but they can also be a barrier when they conflict with scientific recommendations. The interaction between modern knowledge and local wisdom shapes community responses to health disasters. The process of adapting health information requires an approach sensitive to the sociocultural context. Communication strategies that fail to consider community characteristics risk failing to achieve their objectives (Sharma & Sharma, 2020). Community health literacy demands a dialogic process that values community experiences. This approach reinforces the relevance of health literacy as an integral part of disaster preparedness.

Community preparedness is also influenced by the level of trust in health institutions and information sources. Low trust can hinder the acceptance of health messages, even if the information is accurate. Harmonious relationships between the community and health stakeholders strengthen the effectiveness of risk communication. Community health literacy helps people assess the credibility of information sources more critically. This ability reduces reliance on rumors and unverified information. Decision-making processes become more rational and knowledge-based. Preparedness for health disasters increases with increased trust and understanding. This relationship suggests that health literacy serves as a reinforcement of social cohesion (Okan et al., 2023).

The limited empirical research on community health literacy and disaster preparedness remains a gap in health policy development. Many studies focus on clinical and institutional aspects without prioritizing the community as the primary subject. This approach fails to capture the social dynamics that influence community preparedness. Comprehensive empirical data are needed to understand variations in health literacy at the community level. This understanding provides the basis for designing more targeted interventions. Policies that are not based on the real conditions of the community risk being ineffective. Community health literacy studies make an important contribution to strengthening evidence-based policy. The relevance of this research increases as the threat of health disasters increases.

Research on community preparedness for health disasters through a community health literacy approach holds strategic value for sustainable health development. The study results are expected to illustrate the community's actual capacity to address health risks. Empirical findings can be used to formulate contextual and participatory educational programs. Strengthening community health literacy has the potential to increase overall community resilience. This process supports a paradigm shift from a reactive response to preventive preparedness. Community preparedness is a crucial component of a resilient health system. Integrating health literacy into preparedness efforts strengthens the community's role as the frontline. This study is expected to provide scientific and practical contributions to future health disaster management.

METHOD

This study uses a qualitative approach with a literature review method to deeply analyze the concept of community preparedness for health disasters

through the perspective of community health literacy. A qualitative approach was chosen because it allows researchers to understand the meaning, patterns, and conceptual dynamics that develop in various scientific findings related to public health preparedness. The literature review is used as the primary strategy to integrate various research findings, theories, and conceptual frameworks relevant to the study topic. The study focuses on a comprehensive understanding of the relationship between community health literacy and community preparedness for health disasters.

The research data sources were scientific articles, academic books, international organization reports, and policy documents relevant to health literacy, disaster preparedness, and public health. The literature was obtained through searches of scientific databases such as Google Scholar, PubMed, Scopus, and accredited national journal portals. Keywords used in the search included health literacy, community preparedness, health disasters, community health, and public health resilience. The selected literature was publications with substantial relevance to the research focus and prioritized publications published within the last ten years. Literature selection was conducted to ensure the quality and relevance of the sources used. This process resulted in a collection of references representing diverse academic and policy perspectives.

Inclusion criteria for this study included literature discussing health literacy at the individual and community levels, community preparedness for health disasters, and social and cultural factors influencing public health responses. Conceptual literature, qualitative empirical literature, and policy studies were included to enrich the analysis. Exclusion criteria applied to publications that were not directly related to health disaster preparedness or focused solely on clinical aspects without a community dimension. Literature not available in full text was also excluded from the review. Literature screening was conducted in stages by reading the titles, abstracts, and contents of the articles. This stage aimed to maintain consistency and focus of the analysis.

Data collection techniques were conducted through documentation and systematic searches of selected literature sources. Each document was reviewed to identify key concepts, key findings, and the analytical framework used. Important information was recorded and classified based on themes related to community health literacy and health disaster preparedness. The data collection process was conducted iteratively to ensure no important concepts were missed. This approach enabled data enrichment through comparisons between sources. The diversity of literature supported a deeper understanding of the research topic. The documentation results served as the basis for the data analysis stage.

Data analysis was conducted using qualitative thematic analysis techniques. The initial stage of analysis began with coding themes emerging from the literature. These themes were then grouped and interpreted to build an integrated understanding. The analysis focused on the relationship between community health literacy, sociocultural factors, and community preparedness for health disasters. The interpretation process was conducted critically by comparing various perspectives and research findings. This approach enabled the

identification of patterns, gaps, and conceptual implications of the reviewed literature. The results of the analysis are presented in the form of a descriptive-analytical narrative.

The validity of the data in this study was maintained through credibility and dependability strategies. Credibility was achieved by using reliable, peer-reviewed literature sources. Comparisons between sources were conducted to minimize interpretation bias. Dependability was maintained through systematic documentation of the literature search, selection, and analysis process. Transparency of the methods allowed this study to be replicated by other researchers. Consistency of analysis was a primary concern throughout all stages of the study. These efforts ensured that the research findings had a strong academic foundation.

This research has limitations inherent to the literature review method. Reliance on secondary sources limits the research's ability to capture current empirical dynamics in the field. Variations in social and cultural contexts within the literature also potentially impact the generalizability of the findings. Nevertheless, the literature review provides a broad and in-depth conceptual overview. These limitations are offset by critical analysis and synthesis of diverse perspectives. The research findings are expected to serve as a basis for further fieldwork. This approach remains relevant for strengthening theoretical understanding and policymaking related to community preparedness for health disasters.

RESULT AND DISCUSSION

Community Health Literacy as the Foundation for Community Preparedness in Facing Health Disasters

Community health literacy is understood as the collective capacity of a community to access, understand, and use health information meaningfully. This capacity forms the cognitive foundation that determines community preparedness for various forms of health disasters. Adequate understanding of health risks enables communities to anticipate threats before their impacts become widespread. The process of interpreting health information influences attitudes and preventive behaviors that are carried out continuously. Preparedness is reflected not only in crisis responses but also in the ability to recognize early signs of health problems (Yulianasari, 2024; Lamsir, 2025). Health literacy strengthens awareness of the importance of prevention as a primary risk reduction strategy. This collective awareness develops through social interaction and knowledge exchange among community members. The foundation of community preparedness is formed from the accumulation of knowledge and experience that is shared and internalized.

Strengthening community health literacy contributes to the development of adaptive health behaviors in emergency situations. Communities with high levels of literacy tend to be able to interpret health recommendations critically and proportionately. This ability prevents overreaction or neglect of health threats. Adaptation to changes in health information occurs more quickly in

communities with a strong literacy base. Preparedness for health disasters is reflected in the consistency of protective behaviors implemented before and during a crisis. Social interaction serves as a medium for knowledge transmission, strengthening collective understanding (Saifudin, 2023; Panahi et al., 2024). Health literacy makes communities more independent in making health decisions. This independence reduces total dependence on external interventions during disasters.

Community health literacy also serves as an information management mechanism during a crisis. The ability to sort out valid information becomes crucial when the flow of information increases exponentially. The spread of unverified information can worsen the public health situation. Communities with adequate health literacy are more selective in receiving and disseminating information. This critical attitude reduces the potential for disinformation that can trigger collective panic. Community preparedness increases along with the ability to manage information rationally. Good information management supports a coordinated response. Social coordination is a key indicator of health literacy-based preparedness (Navis et al., 2023; Gülsoy et al., 2025).

The collective dimension of health literacy strengthens social solidarity in the face of health disasters. Shared awareness of risks fosters protective behavior among community members. Collective actions, such as alerting one another and sharing resources, arise from a shared understanding of health threats. This solidarity accelerates the process of adapting to emergency situations. Community preparedness is measured not only by individual knowledge but also by the ability to act collectively. Health literacy creates a shared language that facilitates social coordination. This shared language narrows gaps in perceptions of health risks. Perceptual alignment is key to an effective community response.

A literature synthesis shows that community health literacy is a key determinant of community preparedness for health disasters. This capacity fosters a long-term, preventative mindset. Preparedness based on health literacy is more sustainable than a reactive response. Strengthening health literacy requires a systematic and participatory approach. Collective learning processes are the primary means of enhancing community capacity. The preparedness thus developed is relevant not only to one type of disaster but also to a range of health threats. This flexibility enhances overall community resilience. Community health literacy thus occupies a strategic position in developing public health preparedness.

The Influence of Social, Cultural, and Information Access Factors on Health Literacy and Community Readiness

Community health literacy is not formed in a neutral space but is influenced by the surrounding social structure. Education levels and socioeconomic conditions significantly influence a community's ability to understand health information. Communities with limited resources often face barriers to accessing quality information. These barriers result in low

preparedness for health disasters. Social inequality creates significant variations in literacy capacity across community groups. This variation influences response patterns to health risks. Community preparedness becomes uneven due to these differences in basic capacities. The literature confirms that health literacy is closely linked to issues of social justice (Jariyah et al., 2024; Syafei, 2023).

Cultural factors play a significant role in shaping how communities interpret health information. Local values and beliefs influence acceptance of formal health recommendations. Traditional health practices can serve as both enablers and barriers to disaster preparedness. The interaction between modern knowledge and local wisdom shapes a community's unique response. Inconsistencies between health messages and cultural values have the potential to reduce the effectiveness of risk communication (Nahwing, 2024). Culturally sensitive health literacy is more readily accepted by communities. This acceptance strengthens community engagement in preparedness efforts. The preparedness developed reflects the integration of scientific knowledge and local experience.

Access to health information is another determining factor in developing community health literacy. Reliance on digital media expands the reach of information while increasing the risk of disinformation. Communities with limited access to credible sources are more vulnerable to misinformation, which directly impacts health disaster preparedness. Health literacy functions as a filter that selects information based on credibility. The ability to select information strengthens the quality of health decision-making. Community preparedness improves when the information used is accurate and relevant. Equal access to information is a prerequisite for inclusive preparedness (Putri et al., 2022).

Trust in health institutions also influences the effectiveness of community health literacy. Weak relationships between communities and institutions increase resistance to health messages. This resistance hinders the implementation of preventive measures during disasters. Health literacy helps communities assess information without relying solely on institutional perceptions. This critical assessment strengthens community autonomy in decision-making. Community preparedness is more stable when trust is built through transparent communication. Transparency enhances the legitimacy of health messages. This legitimacy encourages collective compliance with mitigation efforts.

Literature analysis shows that social, cultural, and information access factors interact to shape community health literacy. This interaction results in complex and layered preparedness dynamics. A single approach is insufficient to enhance comprehensive preparedness. Understanding the sociocultural context is essential in designing interventions. Health literacy needs to be positioned as a social process, not simply a transfer of information. This social process requires active community participation. The resulting preparedness is contextual and adaptive. The integration of these factors strengthens community resilience to health disasters.

Implications of Community Health Literacy for Health Disaster Preparedness Strengthening Strategies

Community health literacy has strategic implications for designing health disaster preparedness. A literacy-based approach encourages a shift from emergency response to ongoing prevention. Preparedness is no longer understood as a one-time reaction, but rather as a continuous process. Health literacy strengthens the community's capacity to actively participate in risk mitigation. This participation increases the effectiveness of preparedness strategies. Strategies that involve the community tend to be more adaptive to changing situations, and adaptability is key to dealing with the dynamic nature of health disasters (Nutbeam et al., 2018). Health literacy provides a cognitive framework for such adaptation.

Strengthening risk communication is one of the key implications of community health literacy. Health messages tailored to the community's literacy level are easier to understand and implement. A good understanding narrows the gap between policy and practice. Health literacy enables the public to interpret risks proportionately; accurate interpretation prevents panic and apathy. Preparedness increases when the public understands the rationale behind each health recommendation. This understanding strengthens voluntary compliance. Voluntary compliance is more sustainable than coercive approaches (Amalia et al., 2024).

Community-based interventions are more effective when health literacy is a key component. Participatory educational programs strengthen community ownership of preparedness efforts, which promotes program sustainability (Nuari et al., 2026). Health literacy helps communities identify local needs and priorities. Identification of local needs increases the relevance of interventions. The resulting preparedness is more aligned with community characteristics. This alignment increases the effectiveness of responses when disasters occur. Health literacy acts as a bridge between policy and social reality.

Integrating health literacy into disaster preparedness policies strengthens public health systems. Policies that consider community literacy capacity are more inclusive and responsive. Policy responsiveness increases public trust, which facilitates policy implementation at the grassroots level. Health literacy supports decentralized preparedness by strengthening the role of communities. Active community participation reduces the burden on the formal health system. Decentralized preparedness is more resilient to significant stress. Health literacy is the foundation of collaborative health disaster governance.

A synthesis of literature findings confirms that community health literacy is a key lever for health disaster preparedness. Strategies focused on improving literacy yield long-term impacts. These impacts are not limited to a single health threat. Community preparedness develops as knowledge and understanding capacity increases. Health literacy strengthens social resilience in the face of uncertainty. Social resilience is a key element of a resilient health system. Strengthening community health literacy deserves to be prioritized on the policy

agenda. These implications position health literacy as a strategic investment for health disaster preparedness.

CONCLUSION

The conclusion of this study confirms that community preparedness for health disasters is largely determined by the level of community health literacy. Health literacy serves as a cognitive and social foundation that shapes a community's ability to recognize risks and respond appropriately to health threats. A strong literacy capacity fosters sustainable preventive and adaptive behaviors. Community preparedness develops through a collective learning process integrated into community social life. Social, cultural, and information access factors influence variations in health literacy across communities. Inequality in health literacy directly impacts inequality in preparedness for health disasters. Community health literacy plays a crucial role in controlling the flow of information and mitigating the impact of disinformation. Trust in health information sources is strengthened through the community's critical thinking skills. Community-based preparedness strategies have proven to be more relevant and sustainable. Integrating health literacy into preparedness policies strengthens the resilience of public health systems. A health literacy approach encourages a shift from reactive responses to preventive preparedness. This study positions community health literacy as a strategic element in building resilience in the face of health disasters.

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