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DERLEME MAKALESİ / REVIEW ARTICLE

DIS-HEALTH MODEL: A STRATEGIC FRAMEWORK FOR DISASTER HEALTH COMMUNICATION AND LITERACY

DIS-HEALTH MODELİ: AFETLERDE SAĞLIK İLETİŞİMİ VE OKURYAZARLIĞI İÇİN STRATEJİK BİR ÇERÇEVE

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ABSTRACT

Disasters severely disrupt health communication, often leading to misinformation and reduced public access to reliable health information. Low health literacy further complicates crisis response. This study introduces the DIS-HEALTH Model, a strategic framework designed to strengthen health communication and health literacy across all disaster phases—before, during, and after the crisis. The model consists of four components: detection and diagnosis, education and capacity building, field implementation and intervention, and continuous improvement. It aims to support timely information flow, informed decision-making, and public engagement during emergencies. Importantly, the study highlights the need for institutional responsibility sharing and cross-sector collaboration. Effective implementation requires coordination among national health authorities, local governments, NGOs, and international bodies. A national framework is proposed to clarify roles and enhance cooperation. This model offers practical guidance for improving disaster resilience through evidence-based, technology-integrated health communication strategies.

Anahtar Kelimeler: Disaster Communication, Health Literacy, DIS-HEALTH Model, Strategic Framework

ÖZET

Afetler, sağlık iletişimini ciddi şekilde sekteye uğratarak bilgi kirliliğine ve halkın güvenilir sağlık bilgilerine erişiminin azalmasına yol açar. Düşük sağlık okuryazarlığı düzeyi, kriz yönetimini daha da karmaşık hâle getirir. Bu çalışma, afetlerin tüm evrelerinde (öncesi, sırası ve sonrası) sağlık iletişimini ve sağlık okuryazarlığını güçlendirmek amacıyla geliştirilen DIS-HEALTH Modelini tanıtmaktadır. Model; tanı ve tespit, eğitim ve kapasite geliştirme, saha uygulama ve müdahale, sürekli değerlendirme ve iyileştirme olmak üzere dört bileşenden oluşur. Amaç; kriz anlarında zamanında bilgi akışını sağlamak, bilinçli karar almayı desteklemek ve halkın sürece katılımını artırmaktır. Çalışma ayrıca kurumsal sorumluluk paylaşımı ve sektörler arası iş birliği ihtiyacına dikkat çeker. Modelin etkili uygulanabilmesi için ulusal otoriteler, yerel yönetimler, STK'lar ve uluslararası kuruluşlar arasında koordinasyon gereklidir. Bu model, teknoloji destekli ve kanıta dayalı sağlık iletişimi stratejileriyle afet dayanıklılığını artırmayı hedefler.

Keywords: Afet İletişimi, Sağlık Okuryazarlığı DIS-HEALTH Modeli, Stratejik Çerçeve

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1. INTRODUCTION

Disasters significantly impact public health systems and communication mechanisms, making it difficult for communities to access accurate information. In emergency situations, the spread of misinformation endangers public health and further complicates crisis management. While disasters create substantial challenges for healthcare systems and public health, the critical role of health communication and health literacy during crises is increasingly emphasized. Effective health communication efforts are essential during and after disasters to raise public awareness, ensure access to healthcare services, and prevent misinformation.

In this context, health communication and health literacy play a crucial role in enhancing societal resilience against disasters. However, existing disaster management approaches often neglect the need for a structured, planned, and sustainable health communication framework. The DIS-HEALTH Model provides a strategic framework for strengthening health communication and improving health literacy in disaster scenarios, aiming to facilitate access to information and enhance crisis preparedness. This model is based on four key components: identification and assessment, education and capacity building, field implementation and intervention, and evaluation and continuous improvement. This study examines the DIS-HEALTH Model from both theoretical and practical perspectives, offering an applicable method for developing effective health communication strategies during disasters.

2. LITERATURE REVİEW

2.1. Health Literacy in Disasters

Health literacy refers to an individual's ability to obtain, comprehend, evaluate, and make informed decisions regarding health-related information (Brown et al., 2014). During disasters, this skill becomes even more critical as the need for rapid access to reliable information, the risk of misinformation (disinformation), and potential limitations in accessing healthcare services emerge. Health literacy in disasters aims to enable individuals to access, understand, and apply health-related information before, during, and after a disaster (Seifi et al., 2018). Disasters bring significant public health crises. Events such as earthquakes, floods, and pandemics can make it more challenging for individuals to make informed health decisions (Houston, 2012).

Individuals with high health literacy levels are better prepared for disasters, can access reliable health information during crises, and manage post-disaster hygiene and epidemic risks more effectively. Conversely, those with low health literacy are more susceptible to misinformation, face greater challenges in accessing healthcare services, and are at higher risk of mismanaging health concerns (Eckert et al., 2018).

2.2. Factors Affecting Health Literacy in Disasters

Factors influencing health literacy in disasters can be categorized into individual, social, and structural factors:

• Individual Factors: These include education level, age, gender, and access to health information. Elderly women, in particular, are more vulnerable to disasters due to both physical and psychosocial health issues. Their lower levels of health literacy further hinder their ability to prepare adequately for disasters (Seifi et al., 2018).

• Social Factors: These involve the accuracy of information disseminated through media and social media, community solidarity, and the effectiveness of health communication policies.

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Timely and accurate health information encourages communities to act consciously during disasters, whereas the spread of misinformation increases public health risks (Giorgadze et al., 2011).

• Structural Factors: These relate to the preparedness of healthcare systems for disasters, government policies, accessibility of healthcare services, and the applicability of health communication strategies during crises. The ability of healthcare professionals to respond effectively to disasters, the availability of institutional support mechanisms, and financial incentives play a critical role in ensuring the continuity of healthcare services during emergencies (Hatami et al., 2017).

Considering these factors, it becomes clear that enhancing health literacy in disasters requires the development of community-based education programs, the effective use of digital and traditional media sources, and the reinforcement of healthcare systems to improve disaster resilience.

2.3. The Role of Education and Digital Literacy in Disaster Resilience

Research has shown that educational programs aimed at improving health literacy in disaster contexts enhance community resilience and reduce associated risks (Brown et al., 2014). During disasters, elderly individuals and disadvantaged groups are particularly vulnerable due to their limited access to health information and difficulties in decision-making (Seifi et al., 2018). Moreover, digital literacy is increasingly recognized as a crucial factor in facilitating access to health information and psychosocial support in post-disaster settings (Eckert et al., 2018). In this context, digital health literacy plays a vital role, as it encompasses a wide range of digital devices and applications used to diagnose and treat illnesses, support self-management of chronic conditions, and monitor health parameters and daily behavioral patterns (Angerer et al., 2022).

2.4. Health Communication and Crisis Management in Disasters

Disasters create significant public health crises, profoundly affecting healthcare systems, communities, and individuals. In such contexts, health communication—broadly defined as the study and application of communication strategies to inform and influence individual and collective decisions that promote health—plays a central role in ensuring timely access to healthcare, preventing misinformation, and enhancing community resilience (Edgar & Volkman, 2012). Health communication is not only essential for the dissemination of accurate information but also plays a vital role in promoting behavior change, facilitating informed decision-making, and building trust during crises (Lyshol & Rolfheim-Bye, 2021). Within the framework of disaster management, health communication encompasses risk communication, crisis response coordination, and post-disaster recovery processes (Mbola et al., 2024). The implementation of effective communication strategies in these areas can significantly reduce health threats, particularly among vulnerable populations, and enhance the overall effectiveness of public health interventions during times of crisis (Hu et al., 2018).

The Role of Health Communication in Disaster Management

Health communication in disaster management consists of three key phases: pre-disaster preparedness, response during the disaster, and post-disaster recovery (Houston, 2012).

Pre-Disaster Preparedness;

• Proactive health communication strategies must be implemented to raise awareness and prepare communities for potential health risks (Brown, et al. 2014).

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• Risk communication strategies should include community-based training programs to increase awareness of essential health practices during disasters.

• Reliable sources of information must be identified, and collaboration with media outlets should be established to prevent the spread of misinformation.

• Scenario planning and disaster drills should be conducted to educate the public on emergency response protocols.

• Digital platforms should be utilized to improve health literacy and facilitate access to accurate health information (Çalışkan & Üner, 2021).

• Timely and accurate health information is essential to prevent panic and misinformation while ensuring public access to healthcare services (Naushad et al., 2019).

Health Communication During Disasters;

• Emergency health announcements delivered via TV, radio, social media, and SMS.

• Coordination between local and national health organizations to ensure the efficient distribution of medical resources.

• Verification of information before dissemination to prevent the spread of false health claims (Adams, 2018).

Ensuring access to both physical and psychosocial healthcare services is critical for long-term health outcomes (Felix et al., 2020).

Post-Disaster Health Communication and Recovery;

• Establishing mobile health centers to enhance healthcare accessibility.

• Implementing psychological support and trauma management hotlines (McAtee et al., 2022).

• Training healthcare professionals to address post-disaster infectious diseases and emerging health threats.

• Conducting evaluations of health communication strategies and developing improvement recommendations (Cornelius et al., 2022).

Case Studies: The Role of Health Communication in Disaster Response

• Haiti Earthquake (2010): Following the earthquake, public demand for psychosocial support increased, leading to the deployment of expert psychologists and the implementation of mental health communication programs (Davis et al., 2010).

• Japan Earthquake (2011): After the disaster, the government effectively utilized social media platforms to disseminate critical information on healthcare services and emergency shelter locations, improving public access to reliable information (Saito & Mwanri, 2015).

• Smart Systems for Health Communication: Hammad-u-Salam et al. (2021) proposed a real-time data collection model to assess the effectiveness of health communication in disaster-affected areas. These intelligent systems enhance early warning mechanisms and survivor identification, highlighting the role of information technologies in integrated disaster management.

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2.5. Strategies for Effective Health Communication During Disasters

Research highlights that the following strategies should be implemented to ensure effective health communication during disasters:

1. Establishing a Risk Communication Framework: Risk communication is a proactive process conducted before a crisis to raise public awareness and preparedness (Wood & Miller, 2021). Preventing the spread of misinformation and promoting trusted sources of information are essential components of effective risk communication (Agyepong & Liang, 2022). A structured risk communication framework must be developed before and during disasters to ensure the public receives accurate information. Health communication plays a crucial role in enabling individuals and communities to access reliable health information, make informed decisions, and manage health risks (Seeger et al., 2018). In this context, risk communication and crisis communication are two interrelated subfields of health communication that complement each other.

2. Utilizing Digital and Social Media Tools: Digital and social media serve as fast, effective, and wide-reaching tools in crisis communication, disaster management, and health communication. Social media platforms such as Twitter, Facebook, Instagram, TikTok, and WhatsApp play a critical role in information dissemination, public coordination, and emergency response during crises (Widyastuti, 2021). Digital media enhances public health literacy, prevents disease outbreaks, and aids in managing public health crises (Karanfiloğlu & Sağlam, 2021). Recent advancements in AI-powered data analytics, social media monitoring tools, and Geographic Information Systems (GIS) have improved health communication assessment in disaster management (Dwarakanath et al., 2021). Telecommunication-based data collection systems and mobile network-generated big data contribute to disaster-related health communication efforts (Ziadlou et al., 2008). GIS-based health mapping systems help evaluate the efficiency of healthcare centers post-disaster and guide resource allocation to the most affected areas (Lee et al., 2023).

3. Developing Targeted Communication Materials: The effectiveness of communication materials depends on channel selection, message personalization, cultural adaptation, and interactive content. Tailoring communication strategies to different age groups, education levels, and media consumption habitsincreases message impact (Giordani et al., 2016). For example, accessible health information methods should be developed for people with disabilities, elderly populations, and individuals with low literacy levels (Brown et al., 2014). Well-designed communication materials enhance message clarity, promote public awareness, and ensure appropriate behavioral responses. This is particularly critical in health, disaster management, and crisis communication to ensure timely and effective public engagement.

2.6. DIS-HEALTH Model

DIS-HEALTH model was developed to emphasize the role of health communication in disaster contexts. The model's name combines ‘DIS’, an abbreviation of ‘disaster’, with ‘HEALTH’, representing health communication. The DIS-HEALTH Model is a comprehensive strategic framework developed by the researcher to enhance health communication and health literacy during disasters. Specifically designed by the author, this model aims to minimize the adverse effects of disasters on public health and ensure that communities respond in an informed and effective manner during crises.

The model consists of four key components covering the three phases of disasters (pre-disaster, during the disaster, and post-disaster):

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1. Identification and Assessment
2. Education and Capacity Building
3. Field Implementation and Intervention
4. Evaluation Continuous Improvement

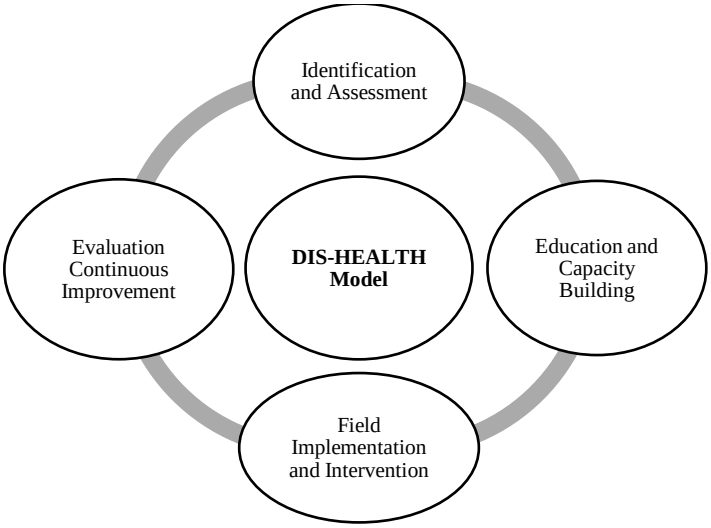

Figure 1. DIS-HEALTH Model

2.6.1. Identification and Assessment

Disasters significantly disrupt access to healthcare services, while information gaps and misinformation pose major risks to public health. Therefore, in the early stages of disaster management, identifying deficiencies in health communication is crucial for ensuring an effective crisis response. This process involves evaluating health literacy levels during disasters, identifying barriers to public access to reliable health information, analyzing misinformation and disinformation sources, and assessing the effectiveness of health communication processes. To achieve these objectives, various methods are employed, including public health surveys and data collection to assess community knowledge and needs, early warning and disaster information systems to track the dissemination of health-related information, and assessments of healthcare accessibility to identify gaps in service delivery. Additionally, community resilience and psychological health analyses help evaluate the impact of disaster-related stress on public well-being. Implementing these strategies ensures a data-driven, effective disaster health communication approach, ultimately strengthening public resilience and crisis preparedness.

Identification and Assessment Process

In the Identification and Assessment phase of the DIS-HEALTH Model, several key strategies are implemented to evaluate health literacy levels, track misinformation, and assess the accessibility of healthcare services during disasters. The following measures are taken:

• Pre- and Post-Disaster Survey Applications: Surveys are conducted before and after disasters to assess public health knowledge levels in both scenarios. Post-disaster surveys will specifically analyze how people accessed health information during the crisis.

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• Monitoring Misinformation on Social Media: The spread of misinformation, a common issue during disasters, will be tracked using data from platforms such as Twitter, Facebook, and WhatsApp. This analysis will help identify the most frequently shared false information and its impact on public perception.

• Utilization of Mobile Applications and SMS Alerts: Mobile apps and SMS notification systems will be used to distribute accurate health information in real time during disasters. These digital tools will help counter misinformation and guide affected populations with reliable health updates.

• Assessment of Healthcare Service Accessibility in Disaster Zones: The availability and accessibility of healthcare services in disaster-affected areas will be evaluated. The effectiveness of emergency response mechanisms will be examined to ensure that essential medical aid reaches affected populations.

• Evaluation of Hospitals' and Healthcare Facilities' Crisis Management Capacities: Hospitals and healthcare institutions will be assessed to determine their preparedness and response capabilities in crisis situations. This includes evaluating staff readiness, infrastructure resilience, and medical supply chains.

• Measuring Post-Disaster Community Psychosocial Resilience: The psychological resilience of affected populations will be analyzed to develop effective crisis communication strategies. Findings from this assessment will guide intervention programs to support mental health recovery.

• Public Awareness and Training Programs for Mental Health Support: Community-based awareness initiatives and educational programs will be developed to promote mental health resilience and emotional support after disasters. These programs will focus on stress management, coping mechanisms, and mental health first aid training.

2.6.2.Education and Capacity Building

Enhancing the knowledge, skills, and resilience of individuals, communities, and healthcare systems is essential for effective disaster preparedness. To minimize the impact of disasters on healthcare systems and public health, a multi-faceted approach is required, including: public awareness programs, training for healthcare professionals and ımproving digital literacy. The first step in mitigating the negative health impacts of disasters is to increase public awareness and preparedness. This directly contributes to improving health literacy, preventing the spread of misinformation, and guiding individuals toward reliable information sources. Additionally, strengthening collaboration between local governments and civil society organizations enhances coordination during disaster response and improves the efficiency of emergency interventions.

Key Components of Training Programs

The education and capacity-building phase of the DIS-HEALTH Model includes comprehensive training initiatives aimed at enhancing disaster preparedness, response efficiency, and public health resilience. The training programs will focus on the following areas:

• Public Disaster Preparedness: Educating individuals on how to respond before, during, and after disasters to ensure safety and effective decision-making.

• Basic First Aid, Hygiene Awareness, and Emergency Procedures: Providing basic first aid training for residents in disaster-prone areas. Raising awareness about hygiene practices and emergency protocols to prevent post-disaster health risks.

• Enhancing Digital Literacy and Preventing Misinformation: Increasing digital literacy to help individuals access accurate health information. Educating the public on identifying and avoiding misinformation during crises.

• Training for Healthcare Workers on Crisis Communication and Emergency Response: Equipping healthcare professionals with skills in crisis communication, rapid response techniques, and emergency healthcare management. Strengthening interdisciplinary coordination among healthcare teams during disaster scenarios.

• Hospital Disaster Simulations for Rapid Adaptation: Organizing hospital-based disaster simulations to enhance the preparedness and adaptability of medical staff. Training healthcare personnel on efficient emergency response in high-stress situations.

• Collaboration Between Local Governments and Civil Society Organizations: Strengthening cooperation between local authorities and NGOs to expedite response efforts and optimize resource allocation. Training community leaders and volunteers to improve organizational and leadership skills during disaster situations.

• Utilizing Digital Platforms for Public Awareness: Leveraging social media, mobile applications, and digital platforms to disseminate vital disaster preparedness information to the public before an emergency occurs.

2.6.3.Field Implementation and Intervention

The Field Implementation and Intervention phase of the DIS-HEALTH Model focuses on ensuring the sustainability of healthcare services, coordinating crisis management, and responding swiftly to public health needs during disasters. This phase integrates technological innovations, mobile health units, and strategic crisis management approaches to optimize emergency healthcare response. To achieve these goals, several key actions are implemented. Mobile health services and temporary medical centers are established by deploying mobile health units and temporary facilities to prevent the collapse of healthcare systems in disaster zones, ensuring uninterrupted medical assistance to affected populations. Additionally, crisis management mechanisms are developed to enable rapid medical response, including the implementation of emergency response protocols that allow healthcare personnel to act swiftly in crisis situations and enhance interdisciplinary coordination among healthcare teams. Another essential aspect is enhancing health literacy through public awareness initiatives, where educational campaigns are conducted to improve public understanding of health risks and emergency preparedness, while addressing misinformation and communication gaps by promoting accurate health information. Furthermore, mobile health technologies are leveraged for patient tracking and emergency care, utilizing telemedicine solutions to optimize patient monitoring and emergency interventions. Real-time data collection and coordination systems are also implemented to improve the effectiveness of disaster response efforts. By integrating these strategies, the Field Implementation and Intervention phase strengthens disaster healthcare preparedness, enhances public resilience, and ensures a more efficient crisis response system.

Key Steps in Field Implementation During Disasters

• In the Field Implementation and Intervention phase of the DIS-HEALTH Model, the following actions will be taken to ensure effective healthcare delivery, crisis management, and community resilience in disaster-affected areas:

• Deployment of Mobile Health Teams and Temporary Medical Units: Establishing mobile health teams, temporary field hospitals, and portable medical devices to provide immediate patient care in disaster zones.

• Utilization of Telemedicine for Critical Cases: Enabling remote healthcare services by connecting patients with doctors via online consultations for urgent medical interventions.

• Implementation of Emergency Alert Systems: Informing the public before and during disasters through early warning and emergency notification systems.

• Leveraging Social Media and Digital Platforms: Enhancing public access to healthcare services and combating misinformation through social media and digital communication tools.

• Establishment of Psychological Support Hotlines and Crisis Intervention Teams: Providing mental health support by forming post-disaster crisis response teams to address trauma-related disorders such as PTSD.

• Organizing Psychosocial Education Programs for Disaster Survivors: Conducting psychosocial training programs to strengthen individual and community resilience after disasters.

2.6.4.Evaluation and Continuous Improvement

The Evaluation and Continuous Improvement phase of the DIS-HEALTH Model focuses on analyzing the effectiveness of health communication and intervention processes during disasters. The goal is to enhance future health management strategies by identifying weaknesses and implementing data-driven improvements in disaster response. To achieve successful disaster management, the performance of healthcare systems will be assessed after each intervention, allowing for the identification of areas that require enhancement. Performance analyses will be conducted to evaluate the success of post-disaster health interventions, and improvement steps will be plannedbased on identified gaps. Lessons learned from disaster management efforts will be documented to prevent recurring mistakes in future crises. Furthermore, standardized improvement protocols will be followed to establish a sustainable disaster management policy.

Key Strategies for Evaluation and Continuous Improvement:

• Developing Comprehensive Reporting Systems: Establishing detailed post-disaster performance reports to assess the effectiveness of healthcare services.

• Experience Sharing and Process Evaluation: Encouraging healthcare personnel and institutions involved in disaster response to share their experiences and provide critical feedback on response processes.

• Identifying Errors and Developing Policy Recommendations: Analyzing mistakes made in disaster management and proposing new policies to prevent their recurrence.

• Assessing Healthcare System Readiness Through Simulations and Field Evaluations: Using disaster simulations and real-world applications to determine how well healthcare systems are prepared for emergencies.

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• Conducting Regular Drills for Healthcare Personnel: Organizing frequent training exercises and simulations to enhance the crisis response capabilities of medical professionals.

• Utilizing Big Data Analytics and AI-Powered Systems: Implementing artificial intelligence and data analytics tools to measure the effectiveness of post-disaster healthcare services.

Monitoring Public Response Through Social Media Analytics: Tracking public reactions and engagement with disaster management efforts using social media monitoring systems

3. CONCLUSION

Disaster health communication and crisis management encompass not only pre-disaster preparedness and post-disaster recovery, but also the implementation of timely, strategic communication throughout the crisis lifecycle. Developing effective health communication strategies requires a multidimensional approach, including:

• Expanding community-based education programs,

• Ensuring fast, accurate, and accessible health communication during disasters,

• Facilitating access to healthcare services in post-disaster contexts, and

• Providing psychosocial support to enhance recovery and mental health resilience.

Health communication and literacy are now widely recognized as critical components of crisis management, helping to prevent misinformation, promote informed decision-making, and enhance public trust (Wang et al., 2025).

To address these needs holistically, the DIS-HEALTH Model has been proposed as a comprehensive strategic framework. Unlike existing models—such as the CDC's Crisis and Emergency Risk Communication (CERC) framework, which focuses primarily on message delivery during emergencies (Reynolds & Seeger, 2005)—the DIS-HEALTH Model emphasizes preparedness, capacity building, implementation, and evaluation as a continuum. It offers four interlinked phases:

• Detection and Diagnosis: This phase enables real-time monitoring of health service capacity during and after crises. It aligns with the CERC model's emphasis on situational awareness and timely assessment (Reynolds & Seeger, 2005).

• Education and Capacity Building: Public health literacy and preparedness are increased through structured community education programs, a component often overlooked in crisis-only models (Kungu, 2025).

• Field Implementation and Intervention: Rapid deployment of health services and public awareness campaigns are critical. This step reflects findings emphasizing the role of operational continuity and direct engagement during crises (Tomić et al., 2024).

• Evaluation and Continuous Improvement: The final phase incorporates feedback loops to improve health system resilience, aligning with frameworks focused on the assessment of emergency risk communication outcomes (Malik & Quan-Haase, 2021).

Additionally, the integration of digital platforms and social media within this model facilitates rapid information dissemination and community engagement (Elgammal, 2021). However, the successful implementation of the DIS-HEALTH Model requires clearly defined institutional responsibilities and coordinated inter-organizational collaboration. National health authorities and disaster management agencies should lead strategic planning and infrastructure development, while local governments and NGOs must support public

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outreach and psychosocial services (Heinkel et al., 2024). Research emphasizes that collaborative governance—based on shared leadership, transparency, and pre-disaster coordination—significantly improves crisis response and resilience (Shahid et al., 2024). Moreover, cross-sectoral communication channels strengthen the flow of accurate information and align operational goals (Soini & Polančič, 2010). Therefore, a national coordination framework should be established to define institutional roles and promote synergy throughout disaster response efforts.

In conclusion, the DIS-HEALTH Model advances the literature by offering an integrated, adaptable framework for health communication in disaster contexts. It supports long-term resilience, improves preparedness, and promotes equitable access to health information and services. Future research should examine the model's scalability across diverse populations and disaster types to inform global disaster health communication strategies.Recommendations

• Integrate AI-powered early warning systems and social media-based health communication strategies to enhance disaster resilience in healthcare systems.

• Implement national programs to improve disaster awareness and health literacy.

• Provide regular crisis communication and disaster management training for healthcare personnel.

• Increase the use of technology to facilitate public access to reliable information during disasters.

• Strengthen collaboration between local governments and non-governmental organizations (NGOs) to enhance disaster response efforts.

• Expand mobile health technologies to improve patient tracking and crisis management.

• Organize disaster preparedness training for healthcare professionals to ensure effective field coordination during emergency interventions.

• Promote digital health literacy to facilitate public access to health information during disasters.

• Expand psychosocial support programs to strengthen mental health services post-disaster.

• Conduct comprehensive performance analyses to evaluate the effectiveness of post-disaster healthcare services.

• Standardize error analysis and lessons-learned processes to ensure continuous improvement in crisis management.

• Increase disaster management training for healthcare personnel and conduct simulation exercises to enhance their emergency response skills.

• Utilize digital tools and AI-powered data analytics systems to enhance the effectiveness of health communication.

• Develop national programs focused on enhancing disaster health literacy.

• Effectively utilize digital and social media platforms for health communication during disasters.

• Implement training programs to improve the communication skills of healthcare professionals during crisis situations.

• Strengthen reliable information sources to prevent public exposure to misinformation during disasters.

By implementing these recommendations, health communication strategies in disaster management can be significantly improved, ensuring public resilience, reducing misinformation, and enhancing healthcare accessibility and response capabilities.

DECLARATION OF THE AUTHORS

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