Review Article

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Bridging Global Knowledge and Local Action: Psychiatric and Psychosocial Lessons from the 2025 Hat Yai Flood

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Abstract:

Disasters such as floods pose significant risks to mental health, particularly for children, adolescents, and other vulnerable populations. Early, evidence-informed interventions are critical to preventing post-traumatic stress disorder (PTSD) and promoting psychological recovery. Psychological First Aid (PFA) is widely recommended as a humane, supportive, and practical approach that avoids forced trauma disclosure. Child-focused interventions delivered through structured play-based and art-based group activities foster emotional regulation, resilience, social connectedness, and the restoration of daily routines. Caregiver mental health support further enhances child outcomes by reducing stress and improving caregiving confidence. Integrated psychosocial and community-based strategies, including culturally adapted programs and peer-supported activities, strengthen social networks and promote adaptive coping. Drawing on global evidence and using the 2025 Hat Yai flood response as an illustrative implementation example, this narrative review synthesizes effective early interventions and practical strategies for implementing mental health and psychosocial support in disaster settings. Emphasizing timely, contextually appropriate, and scalable approaches is essential for improving disaster preparedness and long-term mental health outcomes.

Keywords: child psychosocial support, community-based interventions, disaster mental health, psychological first aid, post-traumatic stress disorder prevention, Thailand

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Introduction

Natural disasters are increasingly recognized as major public health emergencies with substantial psychological consequences that may persist long after physical recovery. Evidence from systematic reviews and meta-analyses indicates that natural disasters are associated with increased psychological distress and psychiatric disorders, including post-traumatic stress disorder and depression[1]. Integrating mental health and psychosocial support (MHPSS) into disaster preparedness and emergency response has therefore become an important global public health priority. International guidance emphasizes the need for coordinated, multisectoral MHPSS responses to protect and promote the mental health and psychosocial well-being of disaster-affected populations[2].

In November 2025, Hat Yai City in Songkhla Province, Thailand, experienced severe and widespread flooding that affected thousands of residents and led to profound social, economic, and psychological consequences. The event resulted in prolonged disruption of livelihoods, temporary displacement of households, and significant interruption of daily functioning across multiple communities. The magnitude and complexity of the disaster underscored the urgent need to integrate coordinated MHPSS services into the emergency response framework.

In this context, Prince of Songkla University led the disaster relief operations in collaboration with the Faculty of Medicine, with the Department of Psychiatry serving as one of the contributing units in the delivery of mental health and psychosocial support. University staff worked in close collaboration with student volunteers from multiple faculties to provide comprehensive mental health care and psychosocial support to affected individuals and communities. Interventions included Psychological First Aid (PFA), emotional support, mental health screening, and referral to specialized services when indicated.

Through interdisciplinary and interfaculty collaboration, the university contributed to a holistic disaster response that addressed both immediate psychological distress and emerging longer-term mental health needs. This real-world experience underscores the importance of timely, evidence-informed MHPSS interventions in reducing psychological distress and mitigating the risk of subsequent mental health disorders, while promoting psychological recovery and resilience following traumatic events. Drawing on global evidence and locally grounded practice, this paper presents a narrative review of early mental health and psychosocial interventions following disasters, using the 2025 Hat Yai flood response as an illustrative example of field implementation rather than as an evaluation study. The objective of this review is to summarize the current evidence on early disaster mental health interventions and demonstrate how this evidence can inform practical implementation in real-world disaster settings.

Methodology

This narrative review was conducted by searching PubMed, Scopus, and Google Scholar for articles published primarily in English on disaster mental health, psychological first aid, PTSD prevention, psychosocial interventions, and child mental health following disasters. The literature search included publications available up to December 2025. Search terms included combinations of "disaster mental health", "psychological first aid", "PTSD prevention", "flood", "children", "psychosocial support", and "community-based intervention". Additional references were identified through manual searches of reference lists and relevant international guidelines, including those published by the World Health Organization.

This review adopted a narrative synthesis approach, integrating the empirical evidence, clinical recommendations, and contextual lessons derived from the mental health response following the 2025 Hat Yai flood. Priority was

given to systematic reviews, clinical guidelines, and studies addressing early mental health interventions following natural disasters. Literature was selected based on relevance to early mental health interventions following natural disasters and synthesized narratively to integrate current evidence with practical experience from the 2025 Hat Yai flood response. The aim was not to estimate pooled intervention effects but to identify transferable principles and practical strategies that can inform disaster mental health preparedness and response in local communities.

Early interventions and what works

A substantial body of research demonstrates that early intervention is critical in reducing the risk and severity of PTSD following trauma exposure. Trauma-focused approaches, particularly Trauma-Focused Cognitive Behavioral Therapy (TF-CBT), consistently show effectiveness when delivered shortly after trauma exposure, especially among individuals experiencing marked acute distress or clinically significant trauma-related symptoms[3]. However, early intervention should be understood within a stepped-care framework, where the intensity of support is matched to individual needs rather than applying trauma-focused treatment universally to all affected populations[4].

Pharmacological interventions, such as hydrocortisone administration during or shortly after high-risk medical trauma, may attenuate acute stress responses and reduce subsequent PTSD. Although studied mainly in specific medical trauma contexts, current evidence remains insufficient to support its routine preventive use[5].

In contrast, single-session psychological debriefing, which requires the immediate and detailed recounting of traumatic experiences, has been shown to be ineffective for PTSD prevention and may even exacerbate distress[6]. Consequently, international organizations, including the World Health Organization (WHO), the War Trauma Foundation, and World Vision International, recommend PFA as a preferred early intervention. PFA emphasizes humane, supportive, and practical assistance while avoiding forced trauma disclosure or premature trauma processing[7]. This approach is particularly relevant in disaster settings, where survivors may still be coping with ongoing threats, displacement, loss of resources, and uncertainty about recovery.

Broader psychosocial and community-based interventions

Integrated psychosocial interventions addressing physical, psychological, and social needs demonstrate moderate effectiveness in reducing PTSD symptoms, particularly among disaster-affected and displaced populations[8]. Strong social support, resilience, and community connectedness are protective factors associated with lower levels of PTSD and depression; together, these findings highlight the value of strengthening the existing social networks and community resources during the recovery phase[9].

Culturally adapted MHPSS interventions further enhance engagement and effectiveness by incorporating local languages, culturally grounded coping practices, and community leadership structures. Such adaptations improve acceptability, relevance, and sustainability across diverse disaster contexts[10]. For the Hat Yai flood context, these principles emphasize the importance of collaboration among healthcare providers, local authorities, schools, community leaders, and existing social networks to ensure that psychological support is accessible, culturally appropriate, and sustainable beyond the immediate emergency phase.

However, systematic reviews highlight mixed and often limited effectiveness of preventive interventions following natural disasters, such as floods and earthquakes, largely due to methodological limitations, heterogeneity in intervention design, and substantial contextual variability[11-14]. These findings underscore the need for rigorous, context-sensitive research to determine optimal timing, priority populations, and scalable intervention models that can

be integrated into routine disaster preparedness systems. Therefore, future disaster mental health strategies should move beyond short-term crisis response toward longitudinal models that combine early psychological support, targeted clinical care, community resilience building, and continuous evaluation of outcomes.

Interventions for children

Child-focused interventions are a critical component of disaster response, particularly when PFA is delivered through structured, play-based activities tailored to developmental stages. Children may experience and express distress differently from adults; therefore, interventions should consider developmental capacity, emotional regulation skills, and the child's need for safety, predictability, and supportive relationships. These interventions aim to restore daily routines, promote emotional safety, and support social and emotional development.

Child safety was prioritized through standardized protection measures, including child registration with caregivers' names, clear supervision protocols, instructions for children and caregivers to return to designated registration points if separated, and stickers displaying caregivers' contact information[15]. These procedures reflected trauma-informed and child safeguarding principles by reducing uncertainty and maintaining a sense of security during a highly stressful environment.

All activities adhered to the core PFA principles, providing practical assistance, promoting calmness, and facilitating social connectedness, while avoiding pressure on children to disclose traumatic experiences. Sessions included age-appropriate emotional check-ins to help children identify and normalize feelings, fostering emotional awareness[15]. Such approaches aimed to support emotional expression without reinforcing traumatic memories or encouraging premature trauma processing.

Psychiatry-informed, trauma-sensitive activities included safe-place drawing with guided imaginative relaxation and the creation of "inner helper" figures adapted from trauma-informed resource development techniques, including concepts derived from Eye Movement Desensitization and Reprocessing (EMDR)-based approaches[16]. These activities were used as supportive self-regulation strategies rather than as a substitute for formal trauma-focused psychotherapy. Sensory-based activities, such as clay modeling, supported present-moment awareness and regulation of acute stress. Targeted grounding strategies, including breathing exercises, color-counting mindfulness, and butterfly-hug self-soothing, were applied for children exhibiting heightened distress[15].

Consistent positive reinforcement highlighted children's strengths and efforts, enhancing self-efficacy and resilience[17]. Group discussions on emotion-regulation strategies, adapted to developmental levels, promoted peer learning and adaptive coping skills[15]. Volunteer-led art-based recreational activities, such as drawing and creative arts, complemented the psychiatric framework by redirecting attention toward positive emotional experiences and re-establishing school-like routines, thereby supporting psychological recovery[15–17]. Importantly, the combination of structured psychosocial activities and community participation helped recreate elements of normal childhood experiences, which are essential for recovery following disaster-related disruption.

The preceding sections summarize the current evidence regarding early mental health and psychosocial interventions following disasters. The following section illustrates how these evidence-informed principles were applied during the 2025 Hat Yai flood response in Southern Thailand. This field implementation is presented as an example of translating the current evidence into practice rather than as a formal evaluation of intervention effectiveness. Accordingly, the purpose of this section is

to describe the adaptation of established disaster mental health principles within a local cultural and community context, while acknowledging the need for future systematic evaluation of outcomes.

PTSD prevention and response in Thailand: the 2025 Hat Yai Flood

During the 2025 Hat Yai flood, Prince of Songkla University led the coordination of emergency shelters, working in collaboration with the Faculty of Medicine, university staff, and student volunteers from multiple faculties, to support more than 14,000 affected individuals. The response represented a coordinated, multi-sectoral approach integrating humanitarian assistance, mental health support, and community engagement during the acute disaster phase.

Interventions were guided by Maslow's hierarchy of needs as a conceptual framework emphasizing that restoration of basic safety, shelter, and essential resources is a prerequisite for psychological recovery following disasters. Ensuring physical safety, shelter, and access to essential resources served as the foundation for psychological recovery. Shelter-based programs adhered to PFA principles, providing humane, practical, and strengths-based support that promoted safety, calmness, emotional stabilization, and social connectedness without pressuring survivors to recount traumatic experiences. These activities were implemented as part of the emergency disaster response and were intended to provide immediate mental health and psychosocial support rather than to evaluate intervention effectiveness.

For child-focused interventions, the Department of Psychiatry designed the psychosocial framework and provided supervision, while university volunteer clubs and trained volunteer teachers implemented structured, group-based activities. These activities facilitated safe emotional expression, play-based engagement, and peer interaction. This collaborative model reflected a task-sharing approach, in which mental health professionals provided clinical guidance while trained community members supported the delivery of accessible psychosocial care.

Caregiver participation and parental mental health support were emphasized, recognizing that strengthening caregivers' well-being reduces child stress and enhances caregiving confidence. This approach aligns with family-centered disaster mental health models, which consider caregivers as important sources of emotional regulation and recovery for children.

At the national level, the Mental Health Crisis Assessment and Treatment Team (MCATT) conducted large-scale mental health screenings, provided early psychosocial support, and referred high-risk individuals to specialized care[18]. Community-based services, mobile outreach initiatives, and the national mental health helpline further enhanced accessibility. Together, these mechanisms demonstrated a stepped-care approach, ranging from universal psychosocial support to targeted assessment and specialist intervention for individuals with significant mental health risks.

Ongoing follow-up and monitoring were implemented to identify the individuals requiring continued mental health support and facilitate appropriate referral pathways. Because the response was conducted under emergency conditions, implementation outcomes were not systematically collected or analyzed. Therefore, this section is intended to describe field implementation and operational experience rather than to assess the effectiveness of the interventions. Future studies incorporating prospective outcome evaluation would further strengthen the evidence base for disaster mental health practice.

Conclusion

Preventing PTSD and promoting psychological recovery in disaster settings require timely, evidence-

informed, and appropriately targeted interventions. Trauma-focused psychological treatments are most effective for individuals experiencing acute distress, whereas universal approaches such as single-session debriefing lack empirical support. In contrast, PFA provides an evidence-informed, low-intensity, early support framework designed to promote stabilization, provide supportive care, and facilitate access to ongoing care without forcing trauma disclosure. Integrated psychosocial and community-based strategies, resilience promotion, caregiver-support approaches, and culturally adapted interventions function as key protective components within post-disaster mental health care. Effective disaster mental health responses therefore require not only evidence-based interventions but also coordination among healthcare systems, communities, educational institutions, and policy-level infrastructures.

The 2025 Hat Yai flood response provides an illustrative example of how evidence-informed mental health and psychosocial interventions can be translated into real-world disaster practice. Although the present review does not evaluate implementation outcomes, the field experience highlights the feasibility of integrating PFA, child-focused psychosocial interventions, and coordinated referral systems into emergency disaster responses. The experience also demonstrates the importance of adapting global disaster mental health principles to local cultural contexts and available community resources. Future prospective studies evaluating implementation outcomes are warranted to strengthen the evidence base for disaster mental health interventions in Thailand and other disaster-prone settings. The lessons learned from the Hat Yai flood response may also inform disaster preparedness planning and the development of scalable mental health and psychosocial support systems in other flood-prone settings. Ultimately, bridging global evidence with local action may provide a sustainable pathway toward more resilient communities and more responsive disaster mental health systems.

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Conflict of interest

The authors declare no conflict of interest.

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