Psychological Impacts of Natural Disasters

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Abstract: Natural disasters are a global health issue that needs serious attention by governments because they cause significant mortality and physical injuries, as well as severe mental health disorders (WHO, 2013). Earthquakes, famine, floods, droughts, volcanic eruptions, hurricanes, and wildfires have displaced people and destroyed their livelihoods. The vulnerable are women, children, the elderly, low-income families, racial minorities, and people with pre-existing mental health disorders. Internally displaced people and refugees are also at increased risk for psychological re-traumatization (Inter-Agency Standing Committee, 2007).

This paper examines how natural disasters affect the mental health of individuals, and it offers recommendations for mental health professionals and policymakers to address the psychological disorders caused by catastrophes. The literature review and the main body discuss the common mental health disorders among victims, such as trauma and stress-related disorders, acute stress disorders, adjustment disorders, prolonged grief disorder, mood disorders, anxiety disorders, panic disorder, and substance use disorder among disaster survivors; the actions that can help mitigate the risks associated with natural disasters; the impacts of disasters on vulnerable populations; and the broader implications of natural disasters for social work.

Keywords: *Natural Disasters, Psychological Disorders, Psychological First Aid, Post-Traumatic Stress Disorder, Social Workers, Vulnerable Groups, Survivors.*

I. INTRODUCTION

A. Context and Background

➤ *Overview of Natural Disasters and Psychological Disorders*

Natural disasters are not new to the world, and they have caused physical destruction, deaths, trauma, and other mental health disorders. The Encyclopaedia Britannica (2025) described a natural disaster as any calamitous occurrence generated by the effects of natural, rather than human-driven phenomena that produces great loss of human life or the natural environment, property, or public infrastructure. Prasad & Francescutti (2017) mentioned that natural disasters cause affected communities and countries mortality, morbidity, and resource depletion. The U.N. ISDR (2004), cited in Prasad & Francescutti (2017), defines a hazard as any phenomenon, physical event, or human action that can cause harm to humans, destruction of property, social disruption, or environmental degradation. Earthquakes, landslides, volcanoes, hurricanes, wildfires, floods, and other catastrophes are caused by weather and climate events. A natural disaster can occur anywhere; however, certain disasters occur more frequently in specific geographic regions (UNDRR, 2025). Disasters have caused countries billions of dollars and have resulted in approximately 45,000 deaths globally every year (Ascione et al., 2023). The effects of natural disasters are compounded by poverty, corruption, and a lack of resources for mitigating the damage caused to survivors (World Bank & GFDRR, 2016).

The piece "Psychological Impacts of Natural Disasters" focuses on the effects of natural disasters on the mental health of survivors. PTSD is one of several psychological reactions to trauma and tragedy. Other stress-related problems include complicated grief, depression, anxiety, somatoform disorders, and drug and alcohol abuse (Escobar-Agreda et al., 2023; Reynolds et al., 2012). Others suffer from severe mental illnesses, such as psychosis, mood disorders, and neuropsychiatric conditions, which need urgent care (Tol & van Ommeren, 2012). Some victims demonstrate an enormous range of nervousness, anxiety, depression, agitation, panic, anger, chills, irritability, uncertainty, hypervigilance, fear of recurrence, diminished concentration, and many others (U.S. National Center for PTSD, n.d.). Insufficient resources and mental health services worsen the plight of some survivors, particularly children, patients with pre-existing medical conditions, and the elderly (WHO, 2021).

B. Objectives and Scope

The study identifies common psychiatric disorders associated with natural disasters, examines the impacts of these disasters on vulnerable populations, provides recommendations for improving the psychological well-being of survivors, and shows the implications of natural disasters for social workers.

II. LITERATURE REVIEW

Terrible natural disasters can lead to serious mental health problems such as PTSD, anxiety, depression, and grief (Norris et al., 2002). Despite interventions by state agencies, mental health professionals, and humanitarian agencies, there are lapses in the delivery of mental healthcare during and after disasters (Gaiser et al., 2023). The study reviews the literature to investigate the following key questions: What common psychological problems are experienced by disaster survivors? What are the impacts of natural disasters on vulnerable populations? What must be done to mitigate the effects of natural disasters?

➤ *Common Psychological Disorders Among Disaster Survivors*

Research shows that natural disasters can lead to a range of psychological disorders. A 2011 study on Norwegian survivors of the 2004 Khao Lak tsunami by Hussein, Weisaeth, & Heir found prevalent psychiatric disorders, including specific phobia, agoraphobia, social anxiety disorder, PTSD, major depressive disorder, and dysthymic disorder among the survivors. These disorders significantly contributed to functional impairment in victims, highlighting the need for effective interventions.

According to Nilamadhap (2010), India's unique geo-climatic conditions render it highly vulnerable to both natural and man-made disasters. Major natural disasters include earthquakes, floods, cyclones, and droughts. The Latur earthquake caused serious psychological problems for survivors, with PTSD and depression being the most common. Obeagu et al. (2024) confirmed that natural disasters significantly affect the mental health of individuals living with HIV/AIDS, often resulting in higher levels of PTSD, depression, and anxiety disorders. The uncertainty surrounding essential medications, disrupted healthcare, and trauma from disasters disrupts their mental health.

Leon (2012) further mentioned that psychosocial abnormalities are severe during and after disasters. Depression, anxiety, somatic disorders, complete spectrum disorder, post-traumatic stress symptoms, and excessive alcohol consumption are mostly reported after major disasters.

According to Satapathy (2012), the most common post-disaster mental disorders include: emotional (panic attacks, shock, fear, irritation, anger, sadness, and guilt feeling), psychosomatic (sleep disturbances, eating problems, physical problems such as muscle tension, palpitation, headaches, nausea, diarrhea or constipation, breathing difficulties, etc), cognitive (repeated thoughts and intrusive recall of memories, distressing dreams, confusion, flashbacks, diminished ability to concentrate, think clearly, or make decisions, memory problems, etc), and behavioural and attitudinal (disruptions in social relationship, habits, poor motivation and concentration, lethargy, hopelessness, loss of interest, etc) difficulties. The three common psychological disorders caused by natural disasters are acute stress reactions/disorders, post-traumatic stress disorders (PTSD), and adjustment disorders.

➤ *Impact on Vulnerable Groups*

Natural disasters often disproportionately affect the vulnerable, including pregnant women, the elderly, children, people with disabilities, racial or ethnic minorities, and low-income individuals (Marshall et al., 2020). According to Mazdiyasni and Aghakouchak (2020), disasters intensify existing social inequalities by unevenly distributing risk and vulnerability. This aligns with findings of Couch and Kroll-Smith (2008) and Fordham (2008), who argued that communities with pre-existing risk factors are typically more vulnerable to subsequent hazards. Al-Rousan et al. (2015) mentioned that the elderly are disproportionately affected by natural disasters, in large part due to their deteriorating physical and mental health and their dependency on routine medical care and assistance. According to Maltz (2019), when normal care is unavailable during natural disasters, older people are more likely to pass away. To effectively assist the senior population in preparing for, recovering from, and evacuating during natural disasters, the emergency response system in the United States should be managed and suitably equipped by state and municipal governments.

Carolyn Kousky (2016) remarked that hunger, malnutrition, damage to homes, migration, grief, neglect, abuse, and community breakdowns resulting from natural disasters seriously affect children's physical and mental health. Disasters disrupt children's education by displacing families, destroying schools, and pushing them into the labour force. Reuniting children with parents and caregivers can help lessen the trauma. Natural disasters can cause increased anxiety and mortality rates among people with disabilities (PWD). According to Parker et al. (2016), there are significantly elevated risks of PTSD and adjustment disorders among survivors due to resource scarcity, heightened fear, disrupted routines, and weakened support networks. Early disaster warning systems, mental health support, ensuring access to food, water, and accommodation, and assistive technologies tools like internet-enabled cell phones can help the elderly and people with disabilities.

III. METHODOLOGY

The methodology for this paper is qualitative content analysis. This is a narrative review of secondary information from peer-reviewed journal articles, international organizations, and credible online publications drawn from Google Scholar, ResearchGate, and university library resources. No definite time frame was applied, i.e., all relevant literature on the psychological impacts of natural disasters was reviewed and compiled.

IV. MAIN CONTENT

According to Erikson (1976), the sudden onset of disasters leads to psychic trauma manifesting in anxiety, depression, sleeplessness, stress, suicidal ideation, and Post-Traumatic Stress Disorder. Erikson introduced the concept of "collective trauma" to describe the emotional distress experienced by residents affected by disasters. Moments after a natural disaster, survivors typically experience shock and disbelief, together with emotional numbness. The normal stress response includes these initial mental reactions that do not always become permanent mental health problems. Individuals typically experience anxiety together with fear and sleep problems during the first stages of their traumatic experiences.

A. Major Mental Health Disorders Caused by Natural Disasters

The immediate effects of natural disasters can lead to long-term mental health challenges.

➢ Shock and Disbelief

The brain's natural defence against severe trauma is shock, which happens immediately after a natural disaster and gradually aids in people's acceptance of the circumstances.

Survivors of earthquakes, tsunamis, and hurricanes frequently exhibit a state of disbelief before they can grasp the true extent of their traumatic situation. According to Somasundaram (2014), many people felt detached from their surroundings, as if the calamity had never happened during the Sri Lankan tsunami. Survivors frequently experience shock in the initial hours or days after a natural disaster.

➢ Hypervigilance and Increased Sensitivity

The occurrence of natural disasters prompts hypervigilant reactions, which cause individuals to stay in a sustained state of high anxiety and stress. The increased consciousness about potential threats causes restlessness, irritability, and chronic stress. Hypervigilant behaviors that develop as a reaction to danger may eventually lead to PTSD. According to Javadian et al. (2019), survivors of the 2003 Bam earthquake in Iran developed intense anxiety.

➢ Denial and Avoidance

After a disaster, some survivors use denial and avoidance as emotional coping mechanisms. Extreme emotional distress may make them stifle their feelings or deliberately avoid discussing the event and hiding trauma recollections. An investigation of 9/11 survivors by Pferfferbaum et al. (2006) showed that avoidance behaviour increases the risk of PTSD and depression in the months after the tragedy. Norris et al. (2008) found that hurricane survivors in the U.S. Gulf Coast were sensitized, resulting in long-term mental health challenges. Denial can reduce anxiety, but can result in nightmares, flashbacks, intrusive memories, and panic attacks (Rachman, S. (1980).

➢ Guilt and Survivor's Syndrome

Survivors who witness the death of relatives and the destruction of their homes may feel irresponsible for escaping death while their loved ones perish or their homes are destroyed. Such feelings of guilt often result in self-blame and shame. Survivors of the 2004 Indian Ocean tsunami often experienced psychological distress and feelings of inadequacy about their inability to assist their loved ones, and the prolonged process of seeking relief items and assistance caused them emotional distress. According to Akbar (2022), survivors in the Rajan Pur and Dera Ghazi districts of South Punjab experienced limited access to water, kitchens, restrooms, and power, which caused them serious sorrow and shame during the government food rationing. Several people were annoyed because they had to stay in their close neighbors' homes and shared the same washrooms for men and women. Paton (2006) mentioned that the experiences of powerlessness and uncertainty can cause enduring emotional effects, including despair, anger, and hopelessness, particularly among individuals who have lost significant others, homes, or livelihoods. Due to stressful circumstances and hazardous life experiences, survivors of natural disasters frequently suffer PTSD, melancholy, anxiety, abnormal grieving, flashbacks, nightmares, and terror. Thirty percent of Hurricane Katrina survivors suffered from PTSD as a result of the damage to their homes and belongings (Kessler et al., 2008). According to Shigemura et al. (2012), victims who survived the 2011 Tōhoku earthquake and tsunami, which destroyed properties and caused deaths of family members, suffered from severe PTSD. Van Griensven et al. (2006) mentioned that closeness to the tsunami area and personal losses were the main causes of PTSD in 12% of the zone's residents six months after the 2004 Thailand tsunami. Haitians experienced PTSD, which was caused by the destruction of their properties, injuries, and inadequate disaster assistance in the 2010 earthquake. Survivor's guilt and stress from rebuilding livelihoods further exacerbated their grief and delayed their emotional recovery (Cerda et al., 2013).

➢ Prolonged Grief

Natural disasters can cause protracted grief in survivors due to the abrupt loss of lives and displacement. The huge losses from the devastation, lack of social support, bereavement, and improper traditional mourning rituals for the dead exacerbate this grief, which can lead to PTSD, depression, and anxiety (Bonanno et al., 2008). Grief can manifest in numbness, disbelief of death, agitation, crying, emptiness, intense emotional pain, and persistent inability to experience positive emotions. According to Jordanova (2021), prolonged grief can be treated with cognitive behavioral therapy, Gestalt holistic therapy, and support.

➢ According to Ganesh et al. (2023),

Elongated stress, a neurotoxin, affects the body, brain, cells, cortisol, adrenaline, the immune system, and can cause serious body inflammation and chronic diseases. Persistent stress reduces one's ability to focus, make decisions, and control emotions, and it impairs cognitive performance. Constant stress can lead to fatigue, insomnia, digestive problems, and obsessive-compulsive disorders. Deep breathing, mindful meditation, exercise, and short breaks lower stress hormones, restore neural balance, and enhance recovery.

B. Actions To Mitigate The Psychological Impacts Of Natural Disasters

According to Williams et al. (2014), governments, non-governmental organisations, and professional associations need to develop effective measures to address the psychological and mental health aftereffects of emergencies, major incidents, and disasters by disseminating information about hazards, safety measures, and available resources.

According to Morganstein and Ursano (2020), the media provides hope and optimism for survivors during disasters. They support affected communities in preparedness, response, and recovery by providing vital information on shelters, evacuations, and available resources.

Wang et. al. (2024) remarked that the media and institutions promote the use of Psychological First Aid (PFA) to support individuals and communities in the aftermath of traumatic events. Psychological First Aid (PFA) is a crucial tool for promoting safety, calming, self-efficacy, social connectedness, and optimism for survivors. It involves removing individuals from direct exposure to trauma, reducing hyperarousal symptoms, and providing information on treatment. Social support networks, online resources, and mobile training can mitigate trauma and maintain hope for individuals and communities. United Nations PFA instructions to help survivors and responders were distributed through BBC and WHO newsletters during the Post-2004 Indian Ocean Tsunami. A 9.1–9.3 magnitude underwater earthquake off the Indonesian coast of Sumatra generated the tsunami, which killed over 230,000 people in Indonesia, Thailand, Sri Lanka, and India. Everly and Lating (2017) claimed that during the 2010 Haitian earthquake, SMS campaigns and radio broadcasts disseminated Creole-language calming techniques and sources of basic needs. Additionally, according to the Pan American Health Organization & World Health Organization (2025), during the COVID-19 pandemic, the WHO and CDC promoted PFA webinars on social media as part of their Mental Health and Psychosocial Support response.

Sandifer and Walker (2018) emphasize the importance of involving emergency managers, preparedness staff, public health responders, and natural resource management officials in addressing stressors caused by disasters. Their collaboration should focus on identifying affected communities and individuals by sharing accurate information and listening to people's perspectives about potential risks. Their expertise and reliable information can significantly shape risk perceptions, reduce stress, and strengthen resilience. Incorporating stress into regulatory frameworks enhances recovery by accommodating individual differences, improving the capacity to diagnose, treat, monitor, and manage stress-related disorders.

Becker (2009) mentioned the role of the National Institute of Mental Health and Neurosciences (NIMHANS) in advancing psychosocial care for disaster survivors. NIMHANS promotes essential psychosocial care skills, including empathy, active listening, problem-solving, and group support at the community level. NIMHANS professionals provide culturally and linguistically appropriate treatment for survivors. NIMHANS disaster response training materials for crisis intervention, career duties, and self-care promote cultural rites, songs, and spiritual activities. This community-based preventive method involves interactive schemes such as role-plays and group discussions, and provides access to local emergency care referral services.

In 2020, Ha added that disaster victims must be aware of the psychological ramifications of a disaster. Limited knowledge of the impacts of disasters makes recovery difficult for victims. For this reason, it is important to encourage people to prepare for various disasters both mentally and physically. Furthermore, Pfefferbaum et al. (2012) note the importance of integrating mental and behavioural healthcare into disaster response planning through assessment, training, interventions, policy development, and communication to monitor, screen, and support affected communities.

V. DISCUSSION

A. Analysis and Interpretation of Findings

➤ *Immediate Psychological Impacts of Natural Disasters*
The research describes multiple instant emotional and cognitive responses caused by natural disasters, which manifest as shock, disbelief, hypervigilance, denial, avoidance, and guilt, together with survivor's syndrome and prolonged grief.

- Survivors commonly experience denial and emotional shock as biological ways to manage trauma. The experience of detachment after a disaster affirms Somasundaram's (2014) research on the Sri Lankan tsunami survivors. The defense mechanism offers protection, but it postpones emotional healing and recovery.
- According to Javadian et al. (2019), survivors become hypervigilant and remain in a heightened state of alert, which results in PTSD and anxiety. These require early intervention to prevent serious mental health problems.
- Pfefferbaum et al. (2006) and Norris et al. (2008) posit that avoidance behaviours (like emotional numbing, withdrawal, or avoiding reminders of the trauma) are common coping strategies that can lead to depression and PTSD, so early therapeutic sessions are recommended.
- Survivor's guilt, manifested in self-recrimination, was common during Hurricane Katrina and the 2004 Indian Ocean tsunami. Paton (2006) established that helpless situations and a lack of clarity drive psychological disorders, particularly in people who lose their loved ones and livelihoods.
- According to Bonanno et al. (2008) and Cerdá et al. (2013), prolonged sorrow arises due to inappropriate mourning rituals and a lack of social support. Effective recovery requires culturally sensitive approaches to help individuals cope with and overcome their emotional trauma.

➢ *Actions to Mitigate the Psychological Impacts of Natural Disasters*
- Morganstein and Ursano (2020) recommend Psychological First Aid (PFA) to provide safety, peace, social connections, and reduce arousal symptoms post-disaster.
- As Becker (2009) highlights, using the NIMHANS model to train community workers to deliver psychosocial care services in a culturally sensitive manner can mitigate the psychological impacts of disasters by encouraging emotional expression, problem-solving, and group-based support, as recovery requires these three essential elements.
- Integrate mental and behavioural healthcare into disaster response planning as recommended by Pfefferbaum et al.

VI. BROADER IMPLICATIONS FOR SOCIAL WORK

Disaster management is a systematic process of planning, organizing, implementing, and evaluating measures to prepare for, respond to, and recover from a catastrophe. Social workers play major roles in disaster management, mitigation, preparedness, intervention, and recovery (Dominelli, L., 2012). The social work profession protects vulnerable communities and groups, including people with disabilities, the elderly, migrants, racial minorities, and children. According to the International Federation of Social Workers (IFSW, 2014), the profession promotes social justice, human rights, and empowerment.

The broader implications for social work during natural disasters include the following:

➢ *A Call For Culturally Informed Practice*
Too many responders at disaster scenes strain local resources and inadvertently contribute to the problems rather than providing solutions. Social workers need to be aware of their roles and responsibilities (Cooper et al., 2018). Social workers should build social capital, prepare people for disasters, and ensure access to resources and opportunities. They should coordinate with local authorities, strategically deploy personnel, strengthen local capacities, and uphold respect for cultural diversity. Calling for strategic and culturally informed practice in social work during catastrophes hinges on understanding and integrating culture, power, identity, and community dynamics into disaster programs (Motsumi & Nemakonde, 2024). Additionally, cooperating with community-based organizations can deepen trust, reinforce culturally safe interventions, and foster more person-centred, respectful, and effective engagement during disasters. Social workers should honor spiritually sensitive practices ethically and effectively (Benson et al., 2016) and provide mental, social, and material support, particularly for low-income families, older adults, and individuals with disabilities, through inclusive recovery frameworks.

According to the U.S. Department of Health and Human Services (2003), cited in Jogia et. al, 2014, crisis counselling programs that are sensitive to the unique experiences, beliefs, values, traditions, and language of survivors, regardless of racial, ethnic, or cultural background, are more efficient and effective. Responders should recognize and respect the strengths, beliefs, ideas, and resources of the communities and tailor interventions to the needs of victims (Norris and Bellamy, 2009). Care workers should recruit disaster workers from the affected community (Cohen, 1984) and community leaders as advisors (Hernandez et al., 2009).

➢ *Specialist Mental Health Services*
According to Silove et. al, 2006, disasters usually overwhelm primary care services, and they cause severe mental health disorders. According to the Inter-Agency Standing Committee (2007), specialist mental health services can help in long-term psychological recovery and the prevention of mental disorders. Targeted, clinically informed services, such as trauma-informed therapy, clinical assessments, crisis intervention and stabilization, substance use disorder treatment, referrals to psychiatrists, psychologists, or inpatient care, grief and bereavement counselling, and PTSD-focused care, can address complex psychological and psychiatric needs. This enjoins social workers to work alongside multidisciplinary teams, including mental health clinicians, emergency responders, and community health providers. Social workers can act as the first points of contact for timely referrals to other mental health professionals, and they can deliver Psychological First Aid and crisis counselling.

A community mental health service can focus on social needs and address the stigma associated with psychological disorders by engaging with families and training local mental health workers for leadership roles. Clinical mental health services should prioritize the vulnerable, such as those with psychosis, organic brain disorders, and severe mood disorders (Amanda et al. 2018). Emergency mental health programs should involve the community, health organizations, and a centralized system for addressing the needs of victims.

➢ *Collaboration*
Social workers should maintain professional relationships with national emergency management organizations, journalists, and local leaders to plan, respond, and manage natural disasters. Government agencies, corporate bodies, families, community mental health services, and disability support services offer support in housing, food relief, career services, rehabilitation, and grief and mental health counselling (National Academies of Sciences, Engineering, and Medicine, 2015).

➢ *Identify the Vulnerable In Communities*
Ideally, interventions should cover community psychosocial issues, traumatized individuals, and severe mental illnesses. Social workers should pay attention to the factors that contribute to vulnerability, and cooperate with diverse local networks and at-risk communities to prepare for, respond to, and recover from natural disasters (Fjord and Manderson, 2009). Responders should prioritise low-income families, people with disabilities, women, children, the elderly, ethnic minorities, and migrants in natural disaster planning. The marginalized lack resources and supportive relationships, and find it difficult to reconstruct their

livelihoods following a disaster and protect themselves from subsequent hazards (Wisner et. al, 2004).

> *Train Social Work Students on Disaster Management*

Social work students should receive training in stress management, bereavement counseling, conflict resolution, group work, problem-solving, data gathering and research, case management, networking, advocacy, and leadership, according to Rock and Corbin (2007), as cited in Harms et al. (2020). Vickers and Dominelli (2015) also suggested that educators should train students on how to work with local partners to respond to disasters and work efficiently. Research in social work education is essential for developing evidence-based practice, effective advocacy skills, critical thinking, and analytical skills, and is integral to career opportunities and advanced roles within the disaster management field. It directs the creation, implementation, and evaluation of governments' welfare policies for poverty reduction, addressing systemic racism, and promoting child and family welfare, as well as mental health. Training schools should encourage students to participate in internships or practicums in government agencies and nonprofit organizations to study the various strategies, including mock drills, applied in disaster and emergency management. The professional social worker must be aware of disaster concepts, their associated risks, and effective interventions. Schools can also put students on rescue, relief, resettlement, and rehabilitation operations. Social work education and research would foster greater awareness among practitioners, policymakers, and nonprofit organizations about underrepresented populations and remote areas (Cooper et al., 2018). The curriculum for training social workers to respond to natural disasters must address the physical, technological, economic, and social realities involved.

> *Identify the Right Interventions*

WHO Report on 'Mental Health in Emergencies' emphasizes that it is crucial to protect and improve people's mental health and psycho-social wellbeing during an emergency through Psychological First Aid. **Care workers can** give important information needed before, during, and after disasters. They can provide material support (such as shelter, food, and clothing), psychoeducation, cognitive behavioral therapy, narrative exposure therapy, and eye movement desensitization and reprocessing (EMDR). According to Silove et al. (2006), Social workers should provide advice on humanitarian programs, promote interpersonal relationships, protect victims from abuse, and support cultural, economic, and psychosocial recovery in reconstruction efforts. The National Academies of Sciences, Engineering, and Medicine (2021) posits that care workers can provide rescue services and support to affected communities and socially vulnerable groups, including children, the elderly, women, individuals with special needs, and animals, by offering medical care and essential services in well-equipped camps and designated safe areas. Furthermore, social workers should enhance economic development through fundraising and offering sustainable and long-term economic activities programs for the vulnerable. Empowerment programs are essential as they broaden people's knowledge of disasters and facilitate their

healing. Responders should uphold victims' right to self-determination, privacy, and confidentiality, and affirm their worth and dignity. Psychiatric social workers should address emotional and behavioral disorders and promote communal bonds and connectedness. Victims' role awareness and support services are crucial for reducing anxiety and fostering their cooperation.

> *Prioritize Indigenous Systems*

The social worker should support indigenous systems, including community self-help groups, to promote recovery, cultural understanding, and shared values. Social workers can adopt a bottom-up approach (Alipour et al., 2015), recreational activities (Huang & Wong, 2013), and parental psychoeducation (Powell & Leytham, 2014), as cited in Harm et al. (2020). Indigenous groups reduce depression and distress by helping members identify social supports and find hope (Powell & Leytham, 2014; Huang & Wong, 2013), offering income-generating opportunities and training, and providing access to microcredit and savings (Desai & Joshi, 2014). The elderly, youth, self-help groups, and local NGOs should be actively involved in developing disaster preparedness plans. Case managers can raise awareness through rallies, street plays, school competitions, wall paintings, and community dialogues (Paterson & Charles, 2019).

> *Strong Skills*

According to Drolet et al. (2024), social workers should provide food, shelter, psychological counseling, and clinical support to help survivors regain normalcy and withstand future catastrophes. Moreover, social workers can advocate for continued support from policymakers, agencies, and organizations, and act as vital brokers linking individuals, groups, and communities with relevant agencies by sharing information to improve their conditions. Hence, social workers should be familiar with the agencies in their vicinity (Zastrow, 2016). Furthermore, according to Hickson and Lehmann (2014), practitioners should be adept in problem-solving, crisis intervention, listening, engagement, evaluation, and bereavement counseling. Social workers are expected to embody qualities such as confidence, empathy, self-reflection, dedication, compassion, flexibility, and patience (NASW, 2008).

> *Public Education and Empowerment*

Social workers should educate communities about natural hazards, the effects of climate change, and eco-protection. They should teach individuals and communities coping, adaptation, and response skills; help rebuild community resilience; dispel myths and misconceptions about disasters; promote social support and coexistence; and work to reduce vulnerability caused by disasters (Mpungose, 2022).

VII. LIMITATIONS OF THE STUDY

Although the paper mentioned some types of natural disasters, it did not discuss them. Future research will delve into the causes of disasters, their associated risks, and potential solutions. Furthermore, the paper does not address

strategies for emergency preparedness and response, nor does it provide tips for helping children, adults, families, pets, households, schools, workplaces, and organizations. Future research should focus on responders' preparedness and methods for safeguarding the mental health of survivors.

VIII. CONCLUSION

Natural disasters cause deaths, injuries, and destruction to properties and infrastructure. Low-income families, children, the elderly, migrants, people with disabilities, and racial minorities are the most affected by natural disasters. Social workers and other relief agencies should advocate for social justice for the vulnerable, provide safe and reliable information on food, medical care, temporary camps, education, and economic opportunities, and advocate for programmes that are effective and sensitive to the cultural differences of affected communities. In summary, the paper offers valuable insights into the impacts of natural disasters on the mental health and well-being of survivors, and it underscores the need for effective policies and interventions to mitigate the psychological disorders associated with natural disasters.

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REFERENCES

[1]. Alexander, D. (1993). *Natural disasters* (1st ed.). Routledge. https://doi.org/10.4324/9781315859149

[2]. Al-Rousan, T. M., Rubenstein, L. M., & Wallace, R. B. (2015). Preparedness for natural disasters among older US adults: A nationwide survey. *American Journal of Public Health*, *105*(S5), S621–S626. https://doi.org/10.2105/AJPH.2015.302876

[3]. Ascione, G., Bufalo, M., & Orlando, G. (2023). *Modeling Volatility of Disaster-Affected Populations: A Non-Homogeneous Geometric-Skew Brownian Motion Approach*. arXiv. https://arxiv.org/abs/2309.09287

[4]. Becker, S. M. (2009). Psychosocial care for women survivors of the tsunami disaster in India. American Journal of Public Health, 99(4), 654658. https://doi.org/10.2105/AJPH.2008.146571

[5]. Benson, P. W., Furman, L. D., Canda, E. R., Moss, B., & Danbolt, T. (2016). Spiritually sensitive social work with victims of natural disasters and terrorism. *The British Journal of Social Work, 46*(5), 1372–1393. https://doi.org/10.1093/bjsw/bcv053

[6]. Bonanno, G. A., Wortman, C. B., Lehman, D. R., Tweed, R. G., Haring, M., Sonnega, J., Carr, D., & Nesse, R. M. (2008). Resilience to loss and chronic grief: A prospective study from preloss to 18 months postloss. *Journal of Personality and Social Psychology, 95*(5), 1312–1326. https://doi.org/10.1037/a0012634

[7]. Carballo, M., Heal, B., & Hernandez, M. (2005). Psychosocial aspects of the tsunami. *Journal of the Royal Society of Medicine, 98*(9), 396–399. https://doi.org/10.1177/014107680509800903

[8]. Carol Tosone, John P. McTighe, Jennifer Bauwens, Shared Traumatic Stress among Social Workers in the Aftermath of Hurricane Katrina, *The British Journal of Social Work*, Volume 45, Issue 4, June 2015, Pages 1313–1329, https://doi.org/10.1093/bjsw/bct194

[9]. Cerdá, M., Paczkowski, M., Galea, S., Nemethy, K., Péan, C., & Desvarieux, M. (2013). Psychopathology in the aftermath of the Haiti earthquake: A population-based study of posttraumatic stress disorder and major depression. *Depression and Anxiety, 30*(5), 413–424. https://doi.org/10.1002/da.22007

[10]. Couch, S. R., & Kroll-Smith, J. S. (2008). Communities at risk: Collective responses to technological hazards. Peter Lang.

[11]. Desai, B. M., & Joshi, S. (2014). *The Role of Self-Help Groups in the socio-economic change of the vulnerable poor. International Journal of Social Economics, 41*(9), 770–782. https://doi.org/10.1108/IJSE-07-2012-0139

[12]. Dominelli, L. (2013). Environmental justice at the heart of social work practice: Greening the profession. *International Journal of Social Welfare, 22*(4), 431–439. https://doi.org/10.1111/ijsw.12024

[13]. Drolet, J. L., Lewin, B., Khatiwada, K., Bogdan, E., & Windsor, E. (2024). The role of social work practitioners and human service professionals in long-term disaster recovery after the 2016 Alberta wildfires. *International Social Work*. Advance online publication. https://doi.org/10.1177/00208728241269680

[14]. Erikson, K. T. (1976). Everything in its path: Destruction of community in the Buffalo Creek flood. Simon and Schuster.

[15]. Escobar-Agreda, S., Romero Albino, Z., Contreras, P. J. et al. (2023). *Complicated grief and its relationship with anxiety, depression, and suicidal ideation in older adults in the context of the COVID-19 pandemic in Peru: a cross-sectional analysis*. BMC Psychiatry, 23, 908. https://doi.org/10.1186/s12888-023-05412-5

[16]. Fordham, M. (2008). The intersection of gender and social class in disaster: Balancing resilience and vulnerability. In B. Phillips & B. H. Morrow (Eds.), *Women and disasters: From theory to practice* (pp. 13–28). Xlibris.

[17]. Ganesh, J., Zelikowsky, M., & Goldsmith, A. A. (2023). Chronic stress, neuroinflammation, and depression: an overview of pathophysiological mechanisms and emerging anti-inflammatories. *Frontiers in Psychiatry, 14*, Article 1130989. https://doi.org/10.3389/fpsyt.2023.1130989

[18]. Gaiser, M., Buche, J., Baum, N. M., & Grazier, K. L. (2023). Mental health needs due to disasters: Implications for behavioral health workforce planning during the COVID-19 pandemic. *Public Health Reports*. https://doi.org/10.1177/00333549231151888

[19]. Ha, K. M. (2020). Psychological preparedness for disasters: A critical review. Journal of Disaster Research, 15(3), 345–356. https://doi.org/10.20965/jdr.2020.p0345

[20]. Hagan, K. O. (2002). Review of *Cultural competence in the caring professions*. *European Journal of Social Work, 5*(2), 233–235. https://doi.org/10.1080/714890041

[21]. Hussein, A., Weisaeth, L., & Heir, T. (2011). Psychiatric disorders among disaster survivors: A study of Norwegian survivors of the 2004 Khao Lak tsunami. Journal of Traumatic Stress, 24(6), 672–680. https://doi.org/10.1002/jts.20690

[22]. Inter-Agency Standing Committee. (2007). IASC guidelines on mental health and psychosocial support in emergency settings. Geneva: IASC. https://interagencystandingcommittee.org/iasc-task-force-mental-health-and-psychosocial-support-emergency-settings/iasc-guidelines-mental-health

[23]. Javadian, R., Karami, G. H., & Zare, M. (2019). Psychological distress and coping strategies among survivors of the 2003 Bam earthquake in Iran. Journal of Loss and Trauma, 24(3), 267–280. https://doi.org/10.1080/15325024.2018.1549185

[24]. Jogia, J., Kulatunga, U., Yates, G. P., & Wedawatta, G. (2014). Culture and the psychological impacts of natural disasters: Implications for disaster management and disaster mental health. *Built and Human Environment Review, 7*(1), 1–10. https://www.researchgate.net/publication/267331786

[25]. Kathryn Hay, Katheryn Margaret Pascoe, 2022. International Journal of Disaster Risk Reduction. Engaging social workers in disaster management: Case studies from New Zealand. https://doi.org/10.1016/j.ijdrr.2022.102941

[26]. Kessler, R. C., Galea, S., Gruber, M. J., Sampson, N. A., Ursano, R. J., & Wessely, **S.** (2008). Trends in mental illness and suicidality after Hurricane Katrina. Molecular Psychiatry, 13(4), 374–384. https://doi.org/10.1038/sj.mp.4002119

[27]. Koh, E. (2022). Social work practice during natural hazards: A scoping review on the impact, duties, and challenges. *International Social Work, 65*(4), 631–646. https://doi.org/10.1177/00208728221078510

[28]. Kousky, C. (2016). Impacts of natural disasters on children. The Future of Children, 26(1), 73–92. https://doi.org/10.1353/foc.2016.0004

[29]. Langan, J. C., Palmer, J. A., & Tinetti, M. E. (2017). Vulnerability of Older Adults in Disasters: Emergency Department Utilization by Geriatric Patients After Hurricane Sandy. *Disaster Medicine and Public Health Preparedness, 11*(5), 607–614. https://doi.org/10.1017/dmp.2017.18

[30]. Leon, G. R. (2012). Psychosocial consequences of disasters: A review of the literature. International Journal of Mental Health, 41(3), 3–21. https://doi.org/10.2753/IMH0020-7411410301

[31]. Maltz, M. (2019). Caught in the eye of the storm: The disproportionate impact of natural disasters on the elderly population in the United States. Elder Law Journal, 27(1).

[32]. https://heinonline.org/HOL/LandingPage?handle=hein.journals/elder27

[33]. Marshall, J., Wiltshire, J., Delva, J., Bello, T., & Masys, A. J. (2020). Natural and Manmade Disasters: Vulnerable Populations. In *Advanced Sciences and Technologies for Security Applications* (pp. 143–161). Springer Nature. https://doi.org/10.1007/978-3-030-23491-1_7

[34]. Maurya, V. (2019). Natural disasters, psychological well-being, and resilience: Concerns related to marginalized groups. *International Journal of Research and Analytical Reviews, 6*(1), 270–275. Retrieved from https://www.ijrar.org/papers/IJRAR19J1696.pdf

[35]. Masego Mirriam Motsumi, Livhuwani David Nemakonde; A framework to integrate indigenous knowledge into disaster risk reduction to build disaster resilience: insights from rural South Africa. *Disaster Prevention and Management: An International Journal* 16 December 2024; 33 (6): 73–85. https://doi.org/10.1108/DPM-08-2024-0220

[36]. Mazdiyasni, O., & Aghakouchak, A. (2019). Natural disasters disproportionately affect vulnerable populations. Nature Climate Change, 9(5), 389–391. https://doi.org/10.1038/s41558-019-0465-1

[37]. Morganstein, J. C., & Ursano, R. J. (2020). The role of media in disaster response and recovery. Psychiatric Services, 71(3), 225–227. https://doi.org/10.1176/appi.ps.201900457

[38]. National Academies of Sciences, Engineering, and Medicine. (2015). *Healthy, resilient, and sustainable communities after disasters: Strategies, opportunities, and planning for recovery*. The National Academies Press. https://doi.org/10.17226/18996

[39]. National Association of Social Workers. (2008). *NASW standards for cultural competence in social work practice*. Washington, DC: NASW Press. Retrieved from https://www.socialworkers.org/LinkClick.aspx?fileticket=PonPTDEBrn4%3D&portalid=0

[40]. Naturale, A. (2007). Secondary traumatic stress in social workers responding to disasters: Reports from the field. *Clinical Social Work Journal, 35*(3), 173–181. https://doi.org/10.1007/s10615-007-0091-y

[41]. Norris, F. H., Stevens, S. P., Pfefferbaum, B., Wyche, K. F., & Pfefferbaum, R. L. (2008). Community resilience is a metaphor, a theory, a set of capacities, and a strategy for disaster readiness. American Journal of Community Psychology, 41(1–2), 127–150. https://doi.org/10.1007/s10464-007-9156-6

[42]. Norris, F. H., Friedman, M. J., & Watson, P. J. (2002). 60,000 disaster victims speak: Part II. Summary and Implications of Disaster Mental Health Research. *Psychiatry: Interpersonal and Biological Processes*, *65*(3), 240–260. https://doi.org/10.1521/psyc.65.3.240.20169

[43]. Pan American Health Organization & World Health Organization. (2025, May 22). *Adaptation of Psychological First Aid to COVID-19*. PAHO/WHO. Retrieved August 30, 2025, from the PAHO/WHO website

[44]. Paterson, B., & Charles, A. (2019). Community-based responses to natural hazards: Global comparisons. *Natural Hazards and Earth System Sciences, 19*(12), 2465–2479. https://doi.org/10.5194/nhess-19-2465-2019

[45]. Phillips, D. S. K., Thomas, A. Fothergill, & L. Blinn-Pike (Eds.), Social vulnerability to disasters (pp. 123–146). CRC Press.

[46]. Paton, D. (2006). Disaster resilience: Building capacity to co-exist with natural hazards and their consequences. In D. Paton & D. Johnston (Eds.), Disaster resilience: An integrated approach (pp. 3–10). Charles C Thomas Publisher.

[47]. Parker, G., Lie, D., Siskind, D. J., Martin-Khan, M., Raphael, B., Crompton, D., & Kisely, S. (2016). *Mental health implications for older adults after natural disasters: A systematic review and meta-analysis*. International Psychogeriatrics, 28(1), 21–27. https://doi.org/10.1017/S1041610215001465

[48]. Pfefferbaum, B., North, C. S., Pfefferbaum, R. L., Christiansen, E. H., & Schorr, J. K. (2006). Comparing the effects of the 9/11 attacks and Hurricane Katrina on mental health. Journal of Traumatic Stress, *19*(6), 847–855. https://doi.org/10.1002/jts.20163

[49]. Prasad, A. S., & Francescutti, L. H. (2017). Natural disasters. In *International encyclopedia of public health* (2nd ed., pp. 215–222). Elsevier. https://doi.org/10.1016/B978-0-12-803678-5.00519-1

[50]. Rachman, S. (1980). Emotional processing. *Behaviour Research and Therapy, 18*(1), 51–60. https://doi.org/10.1016/0005-7967(80)90069-8

[51]. Ravulo, J. (2020). Disaster management and the role of social work: Exploring Cyclone Winston's impact in Fiji. *Asia Pacific Journal of Social Work and Development, 30*(1), 35–49. https://doi.org/10.1080/02185385.2019.1691561

[52]. Reynolds, M., Nayak, S., & Kouimtsidis, C. (2012). *Intrusive memories of trauma in PTSD and addiction*. The Psychiatrist, 36(8), 284–289. https://doi.org/10.1192/pb.bp.111.037937

[53]. Rose, S., Bisson, J., Churchill, R., & Wessely, S. (2002). Psychological debriefing for preventing post-traumatic stress disorder (PTSD). *Cochrane Database of Systematic Reviews*, (2), CD000560. https://doi.org/10.1002/14651858.CD000560

[54]. Sandifer, P. A., & Walker, A. H. (2018). Enhancing disaster resilience by integrating stress into risk communication and recovery planning. Environmental Health Perspectives, 126(8), 085001. https://doi.org/10.1289/EHP3651

[55]. Satapathy, S. (2012). Mental health impacts of disasters in India: Ex-ante and ex-post analysis. In Y. Sawada & S. Oum (Eds.), Economic and welfare impacts of disasters in East Asia and policy responses (pp. 425–461). ERIA Research Project Report 2011-8. ERIA.

[56]. Shigemura, J., Tanigawa, T., Saito, I., & Nomura, S. (2012). Psychological distress in workers at the Fukushima nuclear power plants. JAMA, 308(7), 667–669. https://doi.org/10.1001/jama.2012.9699

[57]. Somasundaram, D. (2014). Addressing Collective Trauma: Conceptualizations and Interventions. Intervention, 12(1), 43–60. https://doi.org/10.1097/WTF.0000000000000006

[58]. Tol, W. A., & van Ommeren, M. (2012). Mental health and psychosocial support in humanitarian settings: Linking practice and research. *The Lancet*, *379*(9839), 2130–2132. https://doi.org/10.1016/S0140-6736(12)60994-3

[59]. Tosone, C., Nuttman-Shwartz, O., & Stephens, T. (2012). Shared Trauma: When the Professional Becomes Personal. *Clinical Social Work Journal, 40*(2), 231–239. https://doi.org/10.1007/s10615-012-0395-0

[60]. Van Griensven, F., Chakkraband, M. L. S., Thienkrua, W., Pengjuntr, W., Lopes Cardozo, B., Tantipiwatanaskul, P., & Tappero, J. W. (2006). Mental health problems among adults in tsunami-affected areas in southern Thailand. JAMA, 296(5), 537–548. https://doi.org/10.1001/jama.296.5.537

[61]. Vij, S., Russell, C., Clark, J., Parajuli, B. P., Shakya, P., & Dewulf, A. (2020). Evolving disaster governance paradigms in Nepal. *International Journal of Disaster Risk Reduction, 50,* 101911. https://doi.org/10.1016/j.ijdrr.2020.101911

[62]. Wang, L., Norman, I., Edleston, V., Oyo, C., & Leamy, M. (2024). The effectiveness and implementation of Psychological First Aid as a therapeutic intervention after trauma: An integrative review. *Trauma, Violence, & Abuse, 25*(4), 2638–2656. https://doi.org/10.1177/15248380231221492

[63]. Williams, R., Bisson, J., & Kemp, V. (2014). Effective psychosocial and mental health responses to disasters: A guide for governments and organizations. Journal of Mental Health, 23(4), 193–196. https://doi.org/10.3109/09638237.2014.910641

[64]. Young, H., & Harvey, P. (2004). The Sphere Project: The Humanitarian Charter and Minimum Standards in Disaster Response: Introduction. *Disasters, 28*(2), 99–100. https://doi.org/10.1111/j.0361-3666.2004.00245.x