

Psychological Impact of Tsunamis

Tsunamis pose an extreme psychological challenge to the recovery of children and families in the affected areas, who may suffer life-threatening personal experiences, the loss of loved ones and property, total disruption of daily routines and expectations for the future, post-disaster adversities, and enormous economic impact. Mental health professionals and others may find the following helpful to know about the expected psychological and physical responses that tsunami survivors may experience. The key concepts include:

- Reactions to Danger
- Posttraumatic Stress Reactions
- Grief Reactions
- Traumatic Grief
- Depression
- Physical Symptoms
- Trauma and Loss Reminders
- Post-disaster Adversities/Disruption

Reactions to Danger

Danger refers to the sense that events or activities have the potential to cause harm. Since the 2004 tsunamis in the Pacific Rim, people and communities have greater appreciation for the enormous danger tsunamis present and the need for an effective early warning system. Following a tsunami or any natural disaster, people *fear recurrence* of the event; the fear is fueled by misinformation and rumor. Danger always increases the need and desire to be close to others, making *separation* from family members and friends more difficult.

Posttraumatic Stress Reactions

Posttraumatic stress reactions are common, understandable, and expectable; nevertheless, they are serious and can lead to many difficulties in daily life. There are three types of posttraumatic stress reactions.

Intrusive Reactions include:

- Repeated upsetting thoughts or images while awake or dreaming
- Strong emotional or physical reactions to reminders of the tsunami
- Feeling and behaving as if something as terrible as the tsunami is happening again

Avoidance and Withdrawal Reactions include:

- Avoiding talking, thinking, or having feelings about the tsunami
- Avoiding places and people connected to the event
- Feeling emotionally numb, detached, or estranged from others
- Losing interest in usually pleasurable activities

Physical Arousal Reactions include:

- Constantly being “on the lookout” for danger
- Being startled easily or being jumpy or nervous
- Having continuing irritability or outbursts of anger
- Having trouble falling or staying asleep or having restless, easily disturbed sleep
- Having difficulty concentrating or paying attention

Children may show some of these reactions through their play or drawing. They may have bad dreams that are not necessarily about the tsunami. Along with irritability, children may have physical complaints (headaches, stomachaches, vague aches and pains) that are difficult to distinguish from true medical concerns.

Grief Reactions

Survivors of a tsunami may have suffered many losses—including loss of loved ones, home, possessions, and community.

Reactions to loss may include:

- Feelings of sadness and anger
- Guilt or regret over the loss
- Missing or longing for the deceased
- Dreams of seeing the person again

Grief reactions are normal, vary from person to person, and can last for many years. Personal, family, religious, and cultural factors affect the course of grief, and there is no single “correct” course of grieving. Although grief reactions are painful to experience, especially at first, they are healthy reactions and reflect the significance of the loss. Over time, grief reactions tend to include more pleasant thoughts and activities, such as reminiscing about happy times or finding positive ways to memorialize or honor a loved one. In the tragic event that a family member’s body is not recovered, religious and cultural burial and mourning rituals are disrupted and the family’s experience of grief is put on hold.

Traumatic Grief

People who have suffered the *traumatic loss* of a loved one often find grieving more difficult. Their minds stay on the circumstances of the death, including preoccupations with how the loss could have been prevented, what the last moments were like, and issues of accountability.

Traumatic grief reactions include:

- ❑ Intrusive, disturbing images of the death that interfere with positive remembering and reminiscing
- ❑ Delay in the onset of healthy grief reactions
- ❑ Retreat from close relationships with family and friends
- ❑ Avoiding usual activities because they are reminders of the traumatic loss

Traumatic grief changes the course of mourning, putting individuals on a different time course than family members usually expect and that religious rituals and cultural norms require.

Depression

Over time, the risk of depression after a tsunami is a major concern. Depression is associated with prolonged grief and the accumulation of post-tsunami adversities.

Symptoms include:

- Persistent depressed or irritable mood
- Loss of appetite
- Sleep disturbance, often early morning awakening
- Greatly diminished interest or pleasure in life activities
- Fatigue or loss of energy
- Feelings of worthlessness or guilt
- Feelings of hopelessness, possible thoughts about suicide

Demoralization is a common postdisaster response to utter disappointment and resignation to living with loss and hardships.

Physical Symptoms

Survivors of the tsunami may experience physical symptoms even in the absence of any underlying physical injury or illness. Physical symptoms often accompany posttraumatic grief and depressive reactions. Symptoms may include:

- Headaches, dizziness
- Stomachaches, muscle aches
- Rapid heart beating
- Tightness in the chest
- Loss of appetite
- Bowel problems

Near-drowning experiences can lead to panic reactions, such as cardiac, respiratory, and other physical symptoms. Survivors may also experience general anxiety reactions, indicating elevated levels of life stress.

Trauma and Loss Reminders

Many people continue to encounter places, people, sights, sounds, smells, and inner feelings that remind them of the tsunami experience and evoke powerful posttraumatic stress reactions. Adults and children are often unaware that they are responding to a *traumatic reminder* and may not recognize the reason for their change in mood or behavior. Reminders often occur unexpectedly, and it can take quite a while to calm down afterward. For tsunami survivors, the sight or smell of the ocean, watching the tide going out, or even the movement of water in a bathtub can act as a disturbing reminder. Because tsunamis bring crashing waves and can make a deep roaring sound, loud noises can act as reminders. The day of the week, the time of day, and the anniversary date are common reminders. Television and radio news coverage can easily serve as unwelcome reminders. When family members have been together during a traumatic experience, afterward they can unwittingly serve as trauma reminders to each other, leading to disturbances in family relationships.

Loss reminders often evoke grief reactions. Survivors may continue to encounter situations and circumstances that remind them of the absence of their loved one, bringing up feelings of sadness, emptiness in the survivor's life, and missing or longing for the loved one's presence. Loss reminders can be *empty situations*, occurring when one would have been with a loved one and he/she is no longer there, for example at the dinner table; during activities usually done together, such as walking or driving to school; and on special occasions, like birthdays and holidays. Children, adolescents, and adults also are reminded by *changes in their everyday lives*, especially hardships, that result from the loss: changes in caretakers, decreases in family income, depression or grief reactions in family members, disruptions in family functioning, increased responsibilities, lost opportunities (education, sports, other activities), and the loss of a sense of protection and security.

Post-disaster Adversities/Disruption

Successfully addressing the multitude of post-disaster adversities not only saves lives, protects health, and restores community function, but constitutes an important mental health intervention. Contending with adversities such as lack of shelter, food, and other resources, and disruption of daily routines can significantly deplete coping and emotional resources and, in turn, interfere with recovery from posttraumatic stress, traumatic grief, and depressive reactions. Post-disaster medical treatment, ongoing physical rehabilitation, and additional traumatic experiences and losses, after the initial disaster, exacerbate distress and interfere with recovery. Likewise, the experience of the tsunami may evoke distress associated with a prior traumatic experience or loss. Children's recovery will be at risk if there is inadequate caretaking, obstacles to family reunification, and delay in returning to daily routines, such as going back to school.

What Are the Consequences of These Reactions?

Post-disaster reactions can be extremely distressing and may significantly interfere with daily activities. For adults, posttraumatic stress, grief, and depressive reactions can impair effective decision-making, so vital in the recovery process. They also interfere with parenting. For children and adolescents, intrusive images and reactivity to reminders can seriously impede learning and school performance. Worries and fears may make it difficult for young children to return to school or to venture any distance from parents or caregivers.

Adolescents may avoid reminders by restricting important activities, relationships, interests, and plans for the future. Their Irritability can interfere with getting along with family members and friends. Families may overlook trauma-related sleep disturbance, which can be persistent and affect teens' daytime functioning. Adolescents and adults may respond to feeling estranged from others or emotionally numb by using alcohol or drugs or engaging in reckless behavior. Over time, adults may have increases in marital discord and domestic violence.

Depressive reactions can become serious, leading to poor school or occupational performance, social isolation, loss of interest in normal activities, self-medication with alcohol or drugs, trying to mask the depression by acting-out, and, most seriously, attempting suicide. Traumatic grief can interfere with one's ability to mourn and reminisce or can increase fear that loved ones will suffer a similar fate; it can cause difficulty in making or sustaining new relationships. Adolescents may respond to traumatic losses by trying to become too self-sufficient and independent from parents and adults or by becoming more dependent and taking less initiative.

Coping after Disaster

In addition to meeting people's basic needs for food, water, shelter, clothing and medicine, there are several ways to enhance coping. *Physical:* People can reduce stress with proper nutrition, exercise, and sleep. People may be motivated to take care of themselves physically if they know that by taking good care of themselves they will be better able to help their families and their community. *Emotional:* People need to know that their emotional reactions are normal and expected and will decrease over time. If their reactions are too extreme or do not diminish, there are mental health professionals who can help. *Social:* Keeping in touch with—and asking support from—family members, friends, religious institutions, and the community is very helpful in coping after a disaster. *Daily Routines:* Children especially should return to normal routines, such as mealtimes and bedtime as much as possible. Children feel safer and more secure with a predictable schedule and structure.

For the optimal recovery of children and adolescents following a tsunami, parents and caregivers should strive to meet their basic survival needs, help restore their sense of safety and security, and provide opportunities for normal development within the context of their family, community, and society.

This project was funded by the Substance Abuse and Mental Health Services Administration (SAMHSA), US Department of Health and Human Services (HHS). The views, policies, and opinions expressed are those of the authors and do not necessarily reflect those of SAMHSA or HHS.