



## Post Trauma Aspects of Disasters: Causes, Effects and Challenges: A Psychological Perspective

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### ABSTRACT

A disaster, natural or human instigated, leaves in its wake shocking disarray and destruction. The loss brought about by a disaster is generally classified into the compartments – human, societal, economic and infrastructural. The economic and infrastructural aspects receive immediate attention as they are considered to be actual damages. However, the loss caused by a disaster does not end there. The psychological distress and anxiety that the victims of a disaster suffer is extremely damaging to their physical, mental and psychological wellbeing. The trauma induced by a disaster does not end with it but continues to exert its fatal influence on the victims bringing out in them a variety of medical anomalies and disorders like personality and identity crises, psychosomatic disorders, regressive memory, cognitive confusion, anxiety about death, generalized fear and so on. The similar impact of natural disasters in the very recent past has resulted in the demand for a new perspective. This paper offers a comprehensive view on the Post Traumatic Stress Disorder suffered by the victims of a disaster, its symptoms, hazardous results and possibility of recovery through the right medical approach.

**Keywords:** Disaster, Psychological distress, Post-Traumatic Stress Disorder and recovery.

### INTRODUCTION

A disaster is technically defined as a 'disruption'- natural or human instigated, that derails the systematic functioning of a society and causes the destruction of human habitat and property.

Disasters can be defined as acute, collectively experienced traumatic events with a sudden onset, and they can be both natural (e.g., hurricanes, floods, earthquakes) and man-made (e.g., plane crashes, industrial accidents, terrorist attacks) [5]. Disasters have always been destructive but in contemporary times, due to burgeoning population and concentration of population, the severity of the disasters and the intensity of the casualties left behind have risen phenomenally.

There are so many natural disasters such as earthquakes, hurricanes, blizzards, landslides, volcanic eruptions, forest fires, tornadoes, floods, droughts, cyclones and tsunami which lead to the death of thousands of people every year, around the globe. They also result in the displacement of population and loss of billions of dollars in terms of money and immovable property. The aspect of uncertainty and unpredictability in Nature adds to the crisis. Though the advancement of technology has made it possible to forecast such calamities, one cannot ever be equipped to stop them. All the nations around the world have faced the tragedy of known and unknown disasters. Records have indicated that Asia tops the list of loss to human life, habitat and property due to natural disasters. It is also noted that developing nations suffer more damage than their industrialized and developed counterparts. It is estimated that a whopping 95 percentage of deaths occurring due to disasters take place in developing nations. They are also twenty

times more affected than developed nations in terms of their GDP.

Human instigated disasters are on the rise and some potential ones are the consequences of manmade technologies. In the year 2012, the Cambridge University undertook The Cambridge Project for Existential Risk which examines the threats to mankind generated by advancement in technology. The project states that the most potent threats to our globe are manmade, some of them being- Artificial Intelligence, global warming, nuclear war and risky use of biotechnology. Anthropogenic disasters include oil spills, unauthorized release of radioactive materials and instigation of nuclear war.

The projections of future climate change are terrifying and suggest that there is a strong possibility of further global warming, sea level rise, and an increase in the frequency of weather-related disasters. Effects of global warming include loss of biodiversity, stresses to existing food-producing systems, and increased spread of infectious diseases such as malaria. Applications of biotechnology have been infrequent for terrorist attacks. However, accelerated advancement has been noted in this field and therefore Biotechnology can pose a global catastrophic risk in the form of natural pathogens or novel, engineered ones. Researchers argue that biological pathogens are easier to mass-produce and therefore they pose a great danger if used deliberately or unintentionally.

The present trends of overpopulation, industrialization, pollution deforestation, desertification and excessive demand and consumption of non-renewable resources could lead to an ecological disaster, such as world crop failure, scarcity of

water, shortage of power, food and fuel, global epidemics and collapse of ecosystem, frequent droughts and in short be a warning to an imminent extinction.

### **DISASTER MANAGEMENT**

The spates of disasters in the recent years have fuelled scholars and researchers all-round the globe to understand disasters and their effects better. The 2004 Indian Ocean tsunami, Hurricane Katrina, the 2009 H1N1 Swine Flu, the 2010 Haiti earthquake, the 2010 Deepwater Horizon oil spill and the 2011 Tohoku earthquake and tsunami have revitalized the efforts towards disaster management.

Researchers have been engrossed in studying disasters and their damaging effects for over a century and the unanimous opinion is that whether a disaster is natural or manmade, it has the potential to become a hazard beyond the duration it lasts. Such hazards may cause loss of life, grievous injury, and destruction of property, dislocation of habitats, loss of livelihoods and services, social and economic disruption, or environmental damage. As preventing a natural disaster does not seem a possibility, disaster management seems to be the logical solution.

Alleviation of the misery of the victims is the primary concern of disaster management. Essentially, there are angles to disaster management: prevention, preparation, relief and recovery. All catastrophes cannot be prevented or even controlled. However, the effects can be mitigated through comprehensive planning and approach. This includes being prepared for a possible catastrophe well in advance in terms of resources. Relief refers to the immediate and prompt steps taken during and immediately after a disaster has taken place. Recovery, the final stage, includes repair, restoration, rebuilding the damage done by the disaster. Contingency plans, assembling of supplies and creation of procedures that can lend structure to relief operation must be initiated in regions where the possibility of a disaster has been identified.

The regulatory authorities and businesses need to be functional even in the face of a disaster. Disaster management puts out strategies for a government to address issues of great relevance such as evacuating people from the affected region, providing shelter, food and medical care.

### **THE HUMAN ANGLE**

The world we live in is becoming more sensitive and susceptible to disasters and grave acts of violence. Often, there is little support from the state and there are global concerns over the challenges faced by vulnerable citizens. There is a new angle to disaster management which is humanitarian in perspective and abstract in ideology.

There is a paradigm shift in the sensibilities of disaster management as it is often noticed that the unfortunate individuals who are the victims of a disaster seldom get personalized attention. The focus remains on providing basic health care and restoration of infrastructure. It is of primary relevance to provide thrust to the areas of neutralizing and eliminating the emotional and psychological aspects of a disaster. Apart from first aid and quick medical attention which alleviate physical trauma, it is inevitable to pay attention to the extreme mental trauma that individuals undergo. It is important [...] for stress risk management to be integrated with the application of the risk management paradigm to other aspects

of disaster management. [3] This abstract angle often goes unaddressed and causes deep trauma to the victims.

### **POST-TRAUMATIC STRESS DISORDER (PTSD)**

Post-Traumatic Stress Disorder or PTSD as it is commonly termed is a generic term that implies one or a number of other types of disorders. It is considered to be an anxiety disorder, but also includes aspects of depression, anxiety, and psychosomatic disorders among many other stressful disorders. The symptoms of PTSD may include denial of reality, flashbacks, paranoia nightmares, and intrusive thoughts which terrify the victim. Other common symptoms are fear of the area or similar areas where the disaster occurred, lack of initiative, disregard towards life and lack of enthusiasm. Lifetime prevalence of PTSD (in a population based sample) is estimated to be 7.8%, although estimates for specific "at risk" populations may be higher. [10]

In addition to PTSD, disaster victims may also suffer from Generalized Anxiety Disorder (GAD) where the individual experiences strong feelings of anxiety and restlessness with trouble in concentration and sleep. Symptoms of depression in both these disorders can vary greatly from victim to victim. In general, the victims are reported to be suffering from clinical depression to feeling of sadness or unhappiness. Symptoms can present such as depression, anxiety, sleep deprivation, or undue worry, which can reach significant levels and would require treatment. [10]

Other recognized symptoms are indecisiveness, distractions, lethargy, and reversal of sleep cycles, eating disorders and highly emotional reactions.

These disorders are often triggered in victims of a disaster and in those related to them because a disaster is unexpected and the resultant loss affects them a lot. There are several factors which makes a disaster victim prone to PTSD. Some of the major reasons are:

- Death of one or many family members and friends
- Grievous and incapacitating injuries sustained during the disaster
- Inability to identify a family member who is under the rubble in the scenario of an earth quake
- Inability to contact family members living in other regions
- Evacuating the region and leaving back one's home and loved possessions
- Loss of pets
- Delay in rescue and rehabilitation
- Sense of loss and isolation triggered due to loss of homes, photographs, property and privacy
- Lack of basic facilities
- Disruption of business and education
- Doubts about starting afresh
- Lack of motivation and self esteem
- Dependent lives in rehabilitation and consequent feelings of inferiority complex

A great tragedy often triggers the 'flight or fight' response in people. Stress due to trauma is not evident in the immediate stages after the disaster. This feeling of remorse and sense of loss sets in eventually and varies in intensity depending on the attitude of the victim. Hurricane Katrina is no exception to this

phenomenon. While several adults broke up in agony sensing their loss of homes and property, there are many examples of children who rose to this occasion and helped children smaller than them. They were termed the Hurricane Katrina's heroes. "Most people when faced with trauma feel that if there is something they can do to feel more constructive, they will do it," says Stuart Goldman, MD, a child psychiatrist at Children's Hospital in Boston [12]. This positive approach is rarely seen in individuals and most suffer from post trauma disorders.

Goldman also believes that will be no change long term if they can go back to the way they were before the tragedy. He feels that resilient kids are surrounded by supportive adults who guide them. Therefore, they feel as though they have the capacity to make a difference in their life. Same is the case with adults who get moral and social support. They bounce back better. Gail Saltz, MD, a psychoanalyst at the New York Psychoanalytic Institute and the author of *Becoming Real: Defeating the Stories We Tell Ourselves That Hold Us Back* also feels that if one copes well in the initial stages he or she will probably be in a better position later[4]. In her much read book she asserts that early diagnosis and treatment helps mitigate the effects of being the victim of a disaster.

However, this is easier said than done. History has enough evidence to prove that PTSD is an alarming reality. Some examples are provided below:

- More than 50% of all Vietnam veterans, about 1.7 million have experienced symptoms of PTSD. Although 60% of war veterans with PTSD have had serious medical problems, only 6% of them have a problem due to injury in combat.
- Eye witnesses of acts of terrorism like the 9/11 attack on the WTC.
- Survivors of war hit zones.
- African Americans, when they are exposed to trauma, are more likely to develop PTSD than whites Americans because they are more susceptible to be doubted.
- People who are exposed to the most intense trauma are the most likely to develop PTSD.
- Paramedics and relief volunteers who are exposed to the intense grief of the victims.
- Refugees may develop PTSD and often go years without treatment.
- Women may develop PTSD after a complex delivery and the trauma continues for months till they are experienced in handling the child.
- Patients who regain partial consciousness during surgery under general anesthesia and who spend long time span in recovery may be at risk for developing PTSD.

### TREATMENT AND RECOVERY

Disaster victims may suffer from adjustment disorders or major depression. Both states are caused due to excessive stress and generally need therapeutic counseling or even extended periods of medication.

Such patients develop emotional or behavioral symptoms within three months of the event and for six months or more after the event or situation. They can have a wide variety of symptoms, which may include:

- Feeling of pessimism
- Feeling of isolation

- Emotional outbursts
- Anxiety
- Headaches or stomachaches
- Palpitations
- Absence from work or school
- Social handicaps
- Suicidal or homicidal tendencies
- Addiction and substance abuse

Added to this, in this media frenzy century, disasters and disaster victims are put on show to create news. Disaster victims, especially, get a lot of media attention and this intensifies their vulnerability. Media attention is out of control for several weeks and the victims are the point of focus. Researchers believe [...] this media attention meant for the survivors who were suffering from their health problems and who were looking for recognition [11] can be quite damaging. In the case of the 1986 Chernobyl Accident, the media made one of the worst cover ups by distorting the truth. The endless coverage wreaked havoc. Television is the worst offender because the visual impact is unforgettable and any reasonable sense of proportion goes out of the window" [2].

At the time of a disaster, the effects and aftermath is often magnified beyond proportion by the media. The influence of the media on the common population is very high and their nonstop coverage arouse negative emotions in both the victims and the general population. Citing the case of the 1995 Oklahoma City bombings, Pfefferbaum and his group which studied the incident conclude that "fear, arousal and hyper vigilance may lead to continued information seeking to assuage continuing concerns about safety but television viewing while in an aroused state has potential psychological ramifications" [7]. In their study, the group confirmed that television viewing after the bombing made a small contribution to subsequent posttraumatic stress symptoms in children or that increased television viewing may be a sign of current distress. Another Pfefferbaum study on the bombing found that peritraumatic response and television exposure accounted for 25 percent of the total variance in a measure of posttraumatic stress symptomatology [6]. The media also influences viewers who are very far from the zone and not even remotely connected with the place or victims of disaster. Among children geographically distant from the explosion, media exposure was also a significant predictor of symptomatology. [8].

The shocking terrorist attack of the September 11, 2001 demonstrated another chilling example of mass hysteria. There were wide spread paranoia attacks in the eye witnesses and most suffered from chronic stress and bouts of depression. Ahern and his group of found that there is a 2.3 times greater odds of probable posttraumatic stress disorder in the group that watched television most. [1] Disaster victims suffer not only by the actual experience of a disaster but also from being constantly exposed to images of that or similar tragedies. In fact, many psychologists and psychiatrists feel that media must exercise restraint in the face of a tragedy and not make it difficult for people who have suffered personal loss. Many even accuse the media of sensationalizing the incidents. In many cases of disasters [...] media itself was the "cause" of the panic; after extensive media coverage of the symptoms [...] [9]., the confusion and mayhem among people increased tenfold.

Victims of PTSD and Adjustment disorders vary in response to the treatment given. A combination of counseling and therapy brings partial to significant recovery in some victims whereas it may not bring even a marginal recovery in others. Most psychoanalysts agree that the promptness in the initiation of treatment determines the response and recovery time. Treating PTSD patients involves lot of risk and uncertainties because each individual reacts to the treatment differently. There is age and gender related parameters also. A set of treatment cannot be used for all because the intensity of suffering due to the disaster effect will be different in each patient. As trauma is an abstract concept, it is invariably difficult to be measured.

It has also been noted that the use of sedatives and tranquilizers can even bring out regressive response in patients. There are examples of patients undergoing a reversal after partial recovery. Medical experts believe that it is necessary to provide an ambience of security, trust and care to such patients. This kind of environment will fortify the effects to the treatment used. It must also be taken into account that the trauma victims be protected from places, visuals, reports and conversation relating to the disaster they have experienced. This protection is essential because any reminder of the disaster will derail the recovery process. Disaster victims should also be kept productively engaged through education and employment. They should also be involved in the treatment of like victims. The thought of being useful and capable may accelerate their recovery. Recent times have also witnessed trained Labrador and German shepherd dogs being used to calm the victims of disasters. Research is on to improve the treatment given to disaster victims and the medical community is optimistic that in the coming years there will be enhanced therapies to treat such victims.

Victims must be recognized and treated depending upon the intensity of their disorder. The treatment procedure may include group sessions and individual sessions. Most victims respond better to group therapies as they feel stronger in the company of other victims. Response and recovery time of victims varies from person to person. It is necessary to have a strong mechanism in place with addresses the emotional and psychological needs of disaster victims. Prompt guidance and expert guidance can help most victims recover from their depressed and traumatized mental states. This in turn helps people to surmount the challenges of starting afresh.

## CONCLUSION

A disaster wreaks havoc on a large scale and brings destruction of property, loss of human life and crises. It is of paramount importance that disaster management addresses all aspects of this damage. Individuals who are victims of such calamities have to deal with multiple losses at the same time. This causes

emotional upheaval in them. These psychological levels of trauma are mostly overlooked and this attitude has to be changed. The Survivalist philosophy which advocates the tuning of human mind to adhere to different challenges must be embraced. This philosophy stresses on learning principles and techniques needed for sustaining through life-threatening situations which can occur unexpectedly. In these times, when the threat of disasters and calamities is looming large it is quintessential to be prepared and equipped to deal with all challenges- physical, financial or psychological. Appendixes, if needed, appear before the acknowledgment.

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