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Managing Impact of Natural Disasters : Some Mental Health Issues

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Our pre-disaster preparedness is as important as our ability to manage the post-disaster situation.

Dr. Manmohan Singh
Prime Minister of India
Quoted in Deccan Herald on 04.01.2005

The earthquake and tsunami waves that caused widespread death and destruction in much of Asia and other parts of the World on the tragic Sunday (26.12.04) has highlighted the immense human suffering that goes with massive disasters. This editorial is penned as a grim remainder for us to look at the disasters from the mental health perspective and device short and long term plans to understand, mitigate or still best, prevent mental health consequences as much as possible by proper, timely and sustained intervention.

Current Scenario

The tsunami waves affecting many of the countries in Asia and other regions and extensive damage and death caused globally is well documented (TOI, 2004). Kar (2004) has reviewed in detail the increasing frequency and intensity of natural disasters both globally and in India. W.H.O (1992), Murthy (2000), Kar (2000) have brought out the growing awareness of mental health consequences of disasters. It is recognised that disasters increase the psychopathology, its impact is felt more in developing countries both as cause and effect and that any natural disaster like volcanic eruption, earthquake, hurricane, cyclone produce varied effects on mental health in the vulnerable population. The vulnerability increases with specific groups and populations which may be the age, gender, literacy, past psychiatric history, personality factors, dose of trauma and degree of exposure, perceived stress, resource loss, loss of relatives and evacuation experiences (Kar, 2004).

Pre-Disaster Planning

In developed countries, like the U.S.A and Europe, where local emergency management network is in place, still the emphasis on management varies to a great extent. In developing countries, the situation is still not very encouraging. Since the wide spread disasters requires the coordination of the government – both at the state and central levels and at the local emergency management setups, the issue gets complicated. The disasters as recent one receiving wide and intensive media coverage, may draw offers of help from varied agencies but the mental health personnel may have difficulty dealing with so many agencies. The mental health professionals who are used to dealing with one to one relationships may find this aspect of networking difficult. However, it is necessary that we prepare the personnel in crisis intervention and emergency disaster management.

Short Term Adaptation to Disasters

The immediate **Disaster Impact Phase** refers to the period when disaster is occurring. In view of overwhelming nature of the impact, acute crisis management becomes the primary issue. This leads to short term adaptation phase when disaster ends and the task of identifying losses, developing plan for recovery need to be attended. It is said that this phase requires 3-9 months to complete. (Vernberg and Varela, 1998). The nature of exposure to the disaster is said to be an important indicator of risk for acute and chronic mental health sequalae. There is a dose response relationship between nature of traumatic exposure and clinical symptomatology. Robins and Smith (1993) have recognised certain aspects as critical to the mental health disturbance. Important of them are - threat to one's life and bodily integrity, physical harm and injury to self, receipt of intentional injury or harm , exposure to the grotesque, violent and sudden loss of a loved one, witnessing or learning of violence to a loved one and exposure to toxins with long term effects. Duration of exposure, cause of disaster like natural v/s human made, accidental v/s deliberate or negligent, proportion of community affected, degree of geographic dislocation and the potential impact on the survivors life like extent of disability, economic loss, multiple deaths etc, are important aspects to be considered. Getting detailed description of traumatic experiences may be troubling for family members and others who were not directly exposed. It is suggested that initial the evaluation and intervention be carried out in the community itself than in clinical settings as it reduces stigmatization and resistance to mental health services (Vernberg & Varela, 1998)

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Psychological First Aid

Following the overwhelming catastrophic exposure, the initial reactions include confusion, disorganization and emotional numbness. Psychological first aid emphasizes mental health roles during and shortly after the impact phase and is distinct from traditional mental health interventions. It does not deal with chronic, long term or intrapsychic problems. Instead, there is focus on 'here & now' enhancing current functioning and providing adequate support to prevent further trauma. This includes:

1. Active advocacy, providing direct instrumental assistance.
2. Factual information, resources for support & assistance
3. Assistance in assessing information & formulating responses
4. Activating social support systems, family and community networks.

These things could be achieved by :

1. **Debriefing & defusing** in which individual or groups of survivors are encouraged to review the significant aspects of traumatic experience following the exposure. This helps emotional release, enhancing social support, reducing social isolation, facilitate cognitive processing of traumatic event and provides education, information and stress management strategies. Even though these techniques are formally practiced by many disaster mental health workers, superiority of one protocol over others concerning efficacy are yet to be established (Gist and lubin, 1998).

2. **Crisis reduction counselling** is conducted with individual or family with a focus on assessing psychological states, thoughts and feelings, identifying and prioritizing current problems, sources of support etc. However, discussion to a great extent related to the disaster recovery process.

3. **Crisis intervention** helps alleviate extreme emotional disasters in the immediate aftermath of a disaster or traumatic event. The goals include assessing extent of mental health impairment, provide pragmatic emotional support, giving information and advice to help retain emotional equilibrium. Providing information on process of recovery from trauma recognizing adaptive v/s maladaptive coping strategies, resources and supports etc. It also includes recognizing indicators of the need for further mental health assistance (American Red Cross, 1991).

When to provide more intensive services?

American Red Cross has enumerated (Vernberg & Varela, 1998) that individuals while being provided 'psychological first aid', under certain conditions need extensive evaluation or treatments. Important are

1. Preexisting serious mental disorder which can get exacerbated by the disaster
2. Extremely impaired functioning like thought disturbances, dissociative episodes, extreme arousal or mood lability or when the individual is unable to care for ordinary demands or personal needs.
3. When there is acute risk of harm to self or others, including suicidality, homicidal ideation, extreme substance abuse or inappropriate anger or abuse of others.
4. When there is a life threatening health condition like heart problems, diabetes, high blood pressure etc., which is not being treated currently but appear to cause problems.

Long Term Adaptation Phase

Mental health issues related to long term adaptation following disasters is akin to many traditional approaches utilized in assessment and treatment. However, even here several issues call for special consideration in assessing and treating disaster survivors, may be even months and years after the exposure to the traumatic event.

Common Mental Health Problems After Disasters

Various factors affecting the intensity and frequency of psychopathology, different types of disasters and other socio-cultural factors modifying the picture, epidemiological issues, various vulnerability factors and the variability of clinical picture has been reviewed. (Kar, 2004; Vernberg & Varela, 1998).

1. **Anxiety, Depression & Somatic Complaints** are the most consistent mental health problems found in studies of disaster survivors. It includes the post-traumatic stress disorder.
2. **Substance Abuse** is widely believed to be affected by disasters. However, substance abuse problems have been reported less consistently than the symptoms of anxiety, depression and somatic complaints. Some studies have found increased use of alcohol and other substances like tranquilizers in the disaster exposed population in USA while studies from other areas have not.

3. **Agression & Anger** appears to be linked to disasters but again as in substance abuse, there is less evidence. It has been reported to be more frequent compared to non exposed population as comparison group. It is reported to be more persistent problem overtime. However, there is little research documenting increases in actual aggression after disasters (Vernberg & Varela, 1998).

Factors Influencing Recovery

It can be grouped under four major headings:

1. **Social Support :** Kaniasty and Norris (1997) report that social support is swiftly mobilized by most disasters but often depleted or diminished much before recovery is accomplished, which contributes to distress. Proper assessment of needed support is a must in designing intervention for disaster survivors. Mental health providers have the added responsibility of improving access to the needed forms of social support, particularly for the marginalized members like poorer, less educated, geographically isolated individuals.

2. **Ongoing disruptions :** Many disasters cause serious disruption for individuals long after the identified disaster event has ended. It is necessary to enquire about ongoing stressful circumstances. Important issues are economic struggles, dislocation, rebuilding, employment disruption, changes in household composition and day today problems.

3. **Psychological resources :** Resilience following the disaster or traumatic event is to a great extent linked to several psychological resources. Religious faith and philosophical perspectives enable the individual to make sense of disaster experiences. Average intelligence, good communication skills, strong beliefs in self efficacy are important.

4. **Socio-economic status:** Education and financial status influence both the exposure and the recovery. Education may influence individuals ability to cope with demands of documentation, making applications, seeking information regarding resources etc. Financial status too has varied vulnerability – poor housing and less desirable location increases vulnerability. Difficulty in repair, replacement, financial pressure due to poor financial reserves, lack of paid leave or scheduling flexibility at job situations would affect post disaster recovery.

Age related issues

Among many variables, age is an important issue related to disaster response in numerous ways. Children and elderly are typically viewed as 'special population' in the disaster literature as they have greater dependence on others to meet their basic needs for food, clothing, shelter etc and these very dependency needs make them vulnerable for both physical and mental health disturbances. Infants and toddlers are often very sensitive to disruptions in care taking and likely to lead to increased feeding problems, irritability and sleep disturbances. Increased demand on care takers may set in a vicious circle. Young children have limited understanding of disaster related events leading to fears and consequent dramatic reactions. School age children understand environment better yet they may be more preoccupied with loss of possessions, pets and events. They may be able to recognize distress in care takers and worry about safety and security of families. Feelings of isolation and helplessness are common. Children over 8 years age are generally competent reporters of psychiatric symptoms and report more post-disaster symptoms then others report for them (Vogel & Vernberg, 1993). Hence, it is said that relying solely on parent or teacher reports to identify post disaster mental health problems in school children is almost certain to underestimate prevalence of these problems. Adolescents may be more competent than earlier group but are prone for greater risk taking behaviors after disasters. Among young and middle aged, latter group with more responsibility of children and elderly parents during and after disasters and consequently likely to face more psychological distress. Elderly present many peculiar problems. Sensory changes accompanying aging, reduced physical and cognitive functioning, poor nutrition, disruptions in medications may contribute to significant mental health problems. Loss of social support, disruptions in routines and changes in living arrangements following disasters may produce poor health behaviors leading to increased dysfunction. Many elderly may attach a strong stigma to the use of mental health services and substantial efforts may be required to make such services acceptable. It is important to communicate clearly that mental health workers are attempting to help them live as independently as possible so also they could help garner resources and support needed to them.

Conclusion

As the extent of devastation, disruption and death is sinking in , it is gratifying to note that the Indian Psychiatric Society has risen to the occasion by providing succor through men,

money and materials both at the local and national level. It is imperative that we help plan the policy, advocacy, network and educate people and official machineries of preventive issues related to disaster. Restoring normalcy, rehabilitation of the affected by rebuilding their life should be our top priority today and in the future. It is not going to be an easy task but challenges are meant to be taken and dealt with courage and perseverance.

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