Trauma after Earthquakes
Mitigating the Psychosocial and Mental Effects

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All over the world there is growing awareness of the mental health consequences of disasters. There has been a major rethink on the needs of populations surviving disasters. The publication of the Inter-Agency Standing Committee (IASC) Guidelines in February 2007 represents a milestone in this area. This is reflected in the regular inclusion of mental health components as part of relief and rehabilitation efforts (IASC 2007). Mental health professionals have become part of the teams of professionals working with disaster-affected populations all over the world (Murthy 2000).

Much like the IASC Guidelines for HIV/AIDS Interventions in Emergency Settings, the *Task Force on Mental Health and Psychosocial Support in Emergency Settings Guidelines* (IASC 2007) reviewed the state of knowledge in this area and identified the key elements for inclusion in emergency responses. The final guidelines include the list of recommended steps, specifically for mental health/psychosocial care, described in 25 action sheets:

(*i*) Establish co-ordination of inter-sectoral mental health and psychosocial support.
(*ii*) Conduct co-ordinated assessments.
(*iii*) Initiate participatory systems and processes for monitoring and evaluation.
(*iv*) Identify, monitor, prevent, and respond to protection threats and failures through social protection.
(*v*) Apply a human rights framework through mental health and psychosocial assistance.
(*vi*) Identify and recruit suitable staff and engage volunteers who have a deep understanding of local culture.
(*vii*) Enforce staff codes of conduct and ethical guidelines.

(*viii*) Organise orientation and training of aid workers in mental health and psychosocial support.

(*ix*) Prevent and manage mental health and psychosocial problems in staff and volunteers.

(*x*) Facilitate conditions for community mobilisation, ownership and control of emergency response in all sectors.

(*xi*) Facilitate community social support and self-help.

(*xii*) Facilitate conditions for appropriate cultural and religious healing practices.

(*xiii*) Facilitate support for young children (0-8 years) and their caregivers.

(*xiv*) Include specific social considerations (safe and culturally appropriate access for all) in the provision of water and sanitation.

(*xv*) Include specific social and psychological considerations (safe aid for all, that take into consideration cultural practices and household roles) in the provision of food and nutritional support.

(*xvi*) Include specific social considerations (safe, dignified, culturally and socially appropriate assistance) in site planning and shelter provision in a co-ordinated manner.

(*xvii*) Include specific social and psychological considerations in the provision of general healthcare.

(*xviii*) Provide access to care for people with severe mental health problems.

(*xix*) Protect and care for people with mental disorders living in custodial settings.

(*xx*) Learn about and, where appropriate, collaborate with local, indigenous, and traditional healing systems.

(*xxi*) Minimise harmful use of alcohol and other substances.

(*xxii*) Provide access to formal and non-formal education.

(*xxiii*) Organise psychosocial support in educational settings.

(*xxiv*) Provide information to the affected population on the emergency, relief efforts and their legal rights.

(*xxv*) Provide access to information about constructive coping methods.

There are three aspects of the guidelines that are worth emphasising. First, the approach to organising psychosocial interventions is considered in detail in the initial worksheets. Second, there are worksheets that focus on the core psychosocial and mental health interventions. Third, there are measures to include mental health

components in nutrition, education, shelter, media, and other activities in emergencies. The publication of the guidelines and related factsheets can be expected to bring about greater recognition of the need for better co-ordination of the efforts of different agencies, increased access to services and new knowledge to guide future interventions.

The scope of this article will be to review the psychosocial/mental health needs in the different stages of disasters, and to support these needs with the experience of some recent disasters in India.

Psychosocial Interventions in Different Phases of an Earthquake

Individuals need support in trying to minimise the effects of an earthquake in three respects. First, they need help to understand the normalcy of the changes they experience in their feelings, bodily functions like sleep and, more importantly, the behavioural changes. Second, they need help in mastering these changes by using corrective behaviour and coping strategies. Third, they need help to rebuild their lives in the least disruptive manner, to minimise the negative effects of the disaster. Efforts should be directed towards providing support in all three of these stages. In India, following the Marathwada earthquake and the Gujarat earthquakes, efforts have been made to try and understand the impact of an earthquake on the mental health of the affected population, as well as to develop interventions to mitigate these effects. A large number of manuals, training programmes and community-based programmes have been developed and evaluated.

Predisaster Phase

This is very important for earthquake-prone areas. Usually, preparation in the pre-disaster phase areas includes building of earthquake-resistant houses and improving communications, etc. It is in this phase that mental health professionals should work with other officials and voluntary organisations to prepare the community and individuals for the impact of a disaster. This would include participating in meetings on disaster preparedness, sharing information about stress and its effects on individuals, emphasising the need to keep the family as a unit during relocation (avoid separating men from women and children), keeping the community together when large groups are relocated temporarily,

and teaching adults to maintain regular daily routines and methods of handling disruption of psychological functions by ensuring regular rest, sleep and organising group interactions. It would also be valuable to identify at this stage itself some volunteers who can be trained in providing psychosocial help. These people will not only be able to provide help but also become communication agents between the affected community and the helping agencies. Ideally, there should be one key individual for every 25–30 families. The manuals that were prepared in response to the Orissa Cyclone (1999) are suitable for their training (Kishore Kumar *et al.* 2000; Srikala *et al.* 2000)

Initial Phases of Disaster (1–4 weeks)

This is a period of intense disruption in the lives of the affected in-dividuals. A lot of immediate relief activities, in terms of food, clothing, shelter, security, and medical care are provided by a variety of groups — both governmental and non-governmental. There will be people who would have lost relatives, experienced injuries, been separated from the family and the chief need is for crisis intervention. Often the psy-chological aspects are not given importance at this stage. The lack of sensitivity to psychological problems leads to various types of other complications like non-acceptance of help and not following directions, even expression of hostility. Mental health professionals will have to reach the people themselves, as well as through a variety of persons working with the disaster-affected population. A special group that should be sensitised are the medical personnel as they see most of the distressed population. The hospital staff often complain about the crying of patients and patients wanting to share their experiences of the earthquake again and again with them. The healthcare staff, espe-cially nurses, can view this process of sharing as a waste of their time, and not understand that this as an important emotional need. An orienta-tion among them to understand the need to share the experience of the disaster again and again led to a better understanding of behaviour and greater sympathy for the affected population. Similarly, encouraging family members to stay with the physically ill is also helpful in decreasing the anxiety of the affected persons and their families. During this phase all affected persons live in a world of 'impending disaster' and tend to over-react to all types of uncertainties. At this stage mental health pro-fessionals should reach out to the leaders of voluntary organisations for two reasons: one is to emphasise the needs of the staff working with

the disaster for emotional support, and the other is to prepare them to understand the emotional needs of the population, along with other physical needs. Translations of simple and clearly written self-help material, emphasising how individuals can take care of themselves, is useful. Some of the messages of self-help that can be shared with the general population are relaxation and meditation; sharing of feelings; resuming family routines; rituals; restarting activities; and participating in relief and rehabilitation. The goal should be to instill in the population a sense of empowerment (Srikala *et al.* 2000; Dave *et al.* 2002a; Dave *et al.* 2002b; Sekar *et al.* 2002; Narayana *et al.* 2002; Indian Red Cross Society 2003a, 2003b and 2003c).

First Few Months (1–6 months)

This is the most important phase for mental health interventions. The initial phase of intense relief efforts usually starts receding from the agenda of the help providers by this time. Often the first 6 weeks are described as the 'honeymoon' period. Soon after this, individuals have to face the reality of rebuilding their lives and coming to terms with their losses. Psychological reactions are common in this phase; studies report that nearly everyone experiences anxiety, depression, panic and other related symptoms during this phase. Mental health professionals will always be too few to meet the needs of a large population. This is the period, therefore, for sharing caring skills with all the help providers working in the community. It is tempting to think of a separate mental-health worker, but this is best avoided except at the supervisory level. Instead, the focus should be on identifying all the care providers and orienting them to mental health care. Some of the key persons are primary healthcare personnel, school teachers and developmental workers. Mental health professionals should become the trainers of these groups and provide regular support to them as they try to integrate mental health care with all the other activities. It is also important not to present emotional needs as deviance, as this approach would stigmatise individuals and lead to a denial of help. The effort should be to provide help as a natural need of the affected population and to everyone rather than to 'ill' persons only. Again the effort should be to strengthen methods of understanding the disaster at the level of family and community. An additional role of mental health professionals will be to function as referral support to those persons who require a greater

degree of help and those found not responding to the initiatives of the community-level help providers (Murthy 2000; Narayana *et al*. 2003).

Indian Experiences in Disaster-related Mental Health Care

India has experienced a large number of disasters, natural as well as manmade, in the last 25 years. The first disaster studied for its mental health effects was the floods in Andhra Pradesh in the late 1970s. The first systematic and prospective study of mental health effects of a disaster followed the death of about 70 children in the circus fire in Bangalore in 1981 (Narayanan *et al*. 1987). The Bhopal disaster in December 1984 was the first major disaster in India to be studied prospectively and systematically. The first assessments of the mental health effects were made in the first week of February 1985 (two months after the disaster) by psychiatrists visiting the affected population at home and examining those attending the general medical facilities. Subsequently, a mental health intervention programme and a five-year annual survey for mental disorders was undertaken by the Indian Council of Medical Research (ICMR), New Delhi (Murthy and Issac 1987; Murthy *et al*. 1987; Bharucha and Bharucha 1987; Sethi *et al*. 1987; Basu and Murthy 2003). Following the demolition of the disputed structure at Ayodhya on 6 December 1992, there were riots in Bombay in January 1993, followed by bomb blasts in March 1993. Approximately 1,500 people died in the riots and the blasts, and 30,000 students dropped out of school after the riots. Motivated social workers, both lay and professional, associated with institutions like the Tata Institute of Social Sciences (TISS), Mumbai, College of Social Work Nirmala Niketan, Mumbai, and NGOs carried out psychosocial counselling individually and in groups (Joseph 2000). The supercyclone that hit the Orissa coast in 1999, was one of the most devastating in terms of the damage suffered by the people, and the destruction of animals and the environment. Over 15 million survivors of the disaster faced this massive damage with an extremely limited mental health infrastructure to provide care (Action Aid 2002; Kanchan and Gwynn 2000). Innovative approaches to mental health care were developed by involving community resources (Kishore Kumar *et al*. 2000; Srikala *et al*. 2000). This was a major breakthrough in the development of psychosocial care programmes in the country. An evaluation, two years after the disaster, demonstrated the benefits of psychosocial interventions for individuals, families and the community (Murthy *et al*. 2003: 103).

The approach was innovative in that it utilised community resources and demonstrated that psychosocial care is feasible even in situations of limited professional resources. The communal riots of Gujarat in February 2002, from a disaster-related mental health care perspective, are important for a number of reasons. The riots were man-made and it is well known that in such a situation the mental health effects are greater. The majority of the survivors were from the minority community and there were fears and barriers to utilising all the available mental health professional help. The psychosocial needs were addressed innovatively by utilising community-level volunteers. Another very important development has been the priority given to psychosocial care by a number of major voluntary organisations like Action Aid, Oxfam, Cooperative for Assistance and Relief Everywhere. (CARE), and Self-employed Women's Association (SEWA) to name a few. Another major development, possibly the most important, is the initiative of the American Red Cross through the Indian Red Cross to give disaster-related mental health high priority. A number of simple, practical and culturally applicable educational and self-care materials have become available. These materials simultaneously address the survivors, community-level volunteers and professionals (Indian Red Cross Society 2003a, 2003b, 2003c; Narayana 2003). Training programmes and the development of human resources is another component. United Nations Development Programme (UNDP) initiatives (with USAID) to develop 'more than 40,000 volunteers will receive information and equipment for disaster-response decision-making and more than 2,50,000 disaster management teams will be created' is another important development (*The Hindu*, 2003; ICMR 2003).

Experience of Working with Earthquakes in India

Uttarkashi Earthquake

On 20 October 1991 the Garhwal region of Uttar Pradesh (UP) was rocked by an earthquake of magnitude 7.7 on the Richter scale. 800 people died, 10,000 houses collapsed and 30,000 were damaged in varying degrees. Immediate interventions were carried out by the Indian Army, the Government of UP, the local administration and NGOs. Unfortunately, there was no organised mental health intervention and no effort on the

part of institutions (governmental or non-governmental) to initiate psychological rehabilitation.

Marathwada Earthquake

The Marathwada earthquake was a major earthquake of magnitude 6.4 on the Richter scale which struck the area on 30 September 1993. Approximately 8,000 people died and 14,000 were injured, and over 34,000 buildings suffered varying degrees of damage. The earthquake resulted in the total destruction of 67 villages, while another 886 villages experienced damage to their houses. The total affected population was around 170,000. The disruption of electricity, incessant rains and the aftershocks made rescue operations arduous. The impact of the disaster was thus multi-dimensional. Of those living close to the epicentre of the earthquake, one-third suffered human loss (i.e., death of a family member), and in most of these families the losses were multiple. One-third of the adults were trapped in the debris, but most of them escaped in a short time. As many as 58 per cent of the adults were exposed to the death/near death of others and the sight of mutilated bodies. Nearly 36 per cent of adults were exposed to body handling. Almost 100 per cent of the sample was rendered homeless, and 40 per cent had lost all their means of livelihood (Agashe and Phadke 1994; Acharya 2000; TISS 1994a, 1994b; The Action Research Unit [TARU] 1995; Sharan *et al*. 1994; Pande 1994; Pande *et al*. 2000a, 2000b; Government of Maharashtra 1994; Gandevia and Chitale 1995; Gandevia 2000; Hegde 1995).

The ICMR set up a Centre for Advanced Research on Mental Health Consequences of Earthquake Disaster with Special Reference to Mental Health for a period of 5 years at the Maharashtra Institute of Mental Health (MIMH) at Pune. A five-year prospective study was completed. The findings of this study showed that psychological morbidity in the disaster-affected population was at least twice that in the control population five years after the disaster. The study involved the assessment of 4,096 individuals, whereas the control group consisted of 3,525 people residing at Parner (Ahmednagar), who had not experienced the earthquake. The first phase of assessment was carried out during one-and-a-half to two-and-a-half years, post-disaster. A follow-up study was undertaken four-and-a-half to five years after the disaster. The prevalence of psychiatric morbidity in the disaster-affected group was 13.9 per cent as against 6.8 per cent in the control group. In the affected group, 21.5 per cent of the adult males and 15 per cent of the women had received

psychiatric diagnosis (comparative values for the control population were 13 and 5 per cent, respectively). Alcohol-related problems accounted for the excess prevalence of psychiatric disorders in males in both the affected and control groups. In both genders and in both groups, the most common diagnosis was 'other reactions to severe stress' (16 per cent). This is equivalent to adjustment disorders that are caused due to the catastrophic nature of stressful events. The other disorders more frequently reported in the affected group were major depressive disorders (9 per cent) and post-traumatic stress disorder (PTSD) (1.3 per cent). In children, sleep disturbances were the predominant problem, in addition to 'other reactions to severe stress'. Risk factors for developing psychiatric disorders were injury, occurrence of disaster deaths in the family, the experience of being trapped inside rubble, and dissatisfaction with social support in the case of adults and the occurrence of disaster deaths in the family in the case of children. A trend was noted towards an increase in psychiatric morbidity as the severity of exposure increased in both adults as well as in children. A clustering of cases was noted in the families, and this was more prominent in the worst-affected villages. When the sample was followed up three years later (almost five years post-disaster), there was significant remission in psychiatric morbidity in that 69 per cent males, 71 per cent females, 83 per cent boys and 98 per cent girls no longer had a psychiatric diagnosis. Variables promoting remission were satisfaction with social support, occurrence of desirable life events and absence of disaster injuries. The desirable activities include cultural and religious activities like participation in *bhajan, kirtan, waari* (pilgrimage), and other traditional festivals (Pande 1994; Pande *et al.* 2000a, 2000b).

Immediate relief measures were carried out efficiently by the Government of Maharashtra GoM, the Indian Army and by local NGOs. Mental health needs were in fact recognised by the State government in its proposal for the Maharashtra Earthquake Rehabilitation Programme. The document stated:

> the fragile mental health of affected women and children needs to be strengthened through a programme of psychological rehabilitation. Counseling groups could be the basis for the entry point to gain the confidence of these people (GoM 1994: 3).

Interventions for psychosocial care were carried out by a number of groups. For the first time in the history of disasters in India, mental

health professionals reached the disaster area to provide care on the third day of the disaster, in contrast to the Bhopal disaster where psychiatrists visited two months after the disaster (Pande 1994). Immediate assistance and the delivery of mental health services was provided by agencies in the hospitals and relief camps. The counselling of groups and individuals, by the government, NGOs and professionals, took place at hospitals housing the injured during the immediate post-impact phase itself. Medication and counselling were carried out at Latur and Osmanabad by psychiatrists attached to government hospitals, MIMH (Pune), the staff of mental hospitals of the State and NGO professionals, and other motivated mental health personnel.

MIMH planned the delivery of services in three phases: immediate intervention (first month post-disaster); outreach counselling services (2–6 months post-disaster) and creating infrastructure locally in collaboration with the government, NGOs and the private sector. A core team, comprising psychiatrists, psychiatric social workers, clinical psychologists, psychiatric residents and nursing counsellors was planned. The data collectors were trained mental health workers and they also participated in the delivery of such care. The core team imparted intensive training to the personnel involved at each stage, defined the objectives and the nature of services to be offered and explained the theoretical orientation. Role playing, video materials, group discussions and didactic lectures were used. The emphasis was on developing listening and communication skills. Immediate interventions were targeted at the hospitalised injured survivors. The objectives of this stage were to detect the psychopathology early on itself, facilitating grief, providing support, giving an opportunity for venting and preparing for discharge. Outreach counselling services were targeted towards Zone 'A', the area of highest destruction. As a result of this, 500 individuals, including children, received some kind of psychological inputs. The mental health workers involved were debriefed to protect the people from stress and improve their performance. This gave the people them an opportunity to express and 'unload' their feelings. In addition to providing these services, MIMH carried out sensitisation and training programmes for peripheral health workers, NGO workers and private practitioners. Services were presented as stress, crisis and counselling services rather than as psychiatric services. However, the team did not quantify the impact of the services. The effort showed two important points: that a large number of disaster-affected people require mental health services and that, in such a situation, these services are acceptable and feasible in such a situation (Pande *et al*. 2000a, 2000b).

Gujarat Earthquake

On 26 January 2001, at approximately 8:46 am, an earthquake measuring 7.7 on the Richter scale occurred in the State of Gujarat, in western India. The US Geological Survey placed the epicentre of the earthquake 69 km north-east of the city of Bhuj. According to the GoI, the earthquake and its aftershocks affected nearly 15.9 million people, resulting in more than 20,000 deaths, 167,000 injuries, and the destruction of over 1 million homes (Desai *et al*. 2002; Bhadra 2001; Mehta 2001a, 2001b; Vankar and Mehta 2004; Sengupta 2004: 119–27).

A survey of distress among hospitalised trauma patients at the Civil Hospital, Ahmedabad showed that 131 of the 151 patients had scored four or more (indicating significant distress and 'caseness') on a mental health screening questionnaire. Similarly, in another study, 45.5 per cent of the patients attending primary health centres appeared to have probable psychological distress. Higher symptom scores were associated with more disability. This study also found psychological morbidity in 80 per cent of the people who had suffered paraplegia and amputation, with an associated high family burden (Bhadra 2001).

A study of teachers in earthquake-affected Kachchh, carried out 6–8 months after the earthquake, found 34 per cent of them were suffering from PTSD (Mehta *et al*. 2001a). The common symptoms reported are presented in Table 13.1. Being a woman emerged as a risk factor for PTSD — 57.6 per cent of the PTSD patients were women, while 43.8 per cent of the teachers who did not have PTSD were women. The most significant stress factors were the presence of a pre-disaster stress and the death of or injury to a child in school. Several known risk factors like death in the family, or injury to oneself were not associated with PTSD.

High-school adolescents studying in standards X and XI who were exposed to earthquake trauma were also studied. They were drawn from two boys schools, one in Bhachau and the other in Rapar — the areas worst affected in Kachchh (Mehta *et al*. 2000b). Out of 126 adolescents, 25 (20 per cent) had clinically significant PTSD features. The commonest manifestations included impaired concentration, lack of pleasure, being easily startled, avoidance of trauma reminders, survivor guilt, apprehension of recurrence, and regressive behaviour. These manifestations were present in more than 40 per cent of the adolescents who were identified as suffering from PTSD (i.e., 20 per cent of the total sample). A longitudinal study of PTSD symptoms indicated a gradual decline with the passage of time and stabilisation of symptoms of about 21 per cent in ten months post-earthquake (Vankar and Mehta 2004).

Table 13.1: Features of PTSD

Manifestation	PTSD teachers (%)
Recurrent memories, thoughts, images	35.9
Nightmares	14.1
Reliving experience	33.0
Reminders	38.9
Autonomic hyperactivity	34.1
Avoidance of talks/feelings	48.9
Avoidance of activities/situations	47.1
Loss of memories	28.2
Lack of interest	55.3
Feeling of estrangement	48.3
Emotional numbing	24.7
Foreshortened future	52.4
Sleep disturbance	42.9
Anger outbursts	38.2
Lack of concentration	41.7
Hyperalertness	72.9
Easily startled	52.3

Source: Mehta et al. (2001a).

UNICEF developed a large-scale intervention programme through schools (Sengupta 2004: 119–27). The strategy adopted under this project focused on integrating psychosocial support with the restoration of primary education system in Kachchh District. The project was carried out in Kachchh district, covering the blocks of Bhuj, Anjar, Rapar, and Bachchau. The key activities were capacity building among teachers to provide psychological support to students and identifying children who were at risk of developing long-term effects of trauma.

The service providers, in this case the teachers, had themselves borne the impact of trauma. Most of the teachers, like other members of the community, had lived through the shock of the earthquake and the repeated aftershocks, and had been witness to widespread destruction and damage. Around 1,000 children had died in Kachchh alone. Moreover, the teachers were also seen as a resource by the government for many other post-earthquake activities and it was thus an uphill task for them to also be able to focus on psychosocial interventions. In Khavda region, teachers had to walk about 15 km one way to reach their schools.

Sengupta summarises some of the problems faced while training teachers:

The training process for teachers was challenged in various ways. For the first training programme, some teachers travelled with their families, as

they did not want to leave their family alone post the earthquake. Other teachers were worried that they had taken a grave risk in being present for the training as living in open areas they had to leave their belongings in the open. Some others said that it was a relief to be able to travel away from the problems of daily existence, even though for a few days (2004: 180).

A two-day orientation and sensitisation workshop held with 75 teachers at Samkhyali helped in designing the programme. It was conducted by the UNICEF team, psychiatrists and an NGO called Chetna. The response of the teachers reaffirmed the need for a psychosocial programme and that the schools would be good starting points. After the master trainers received their training, suitable material for distribution was developed and training organised for about 174 primary school teachers at Ambaji. There was a post-training debrief on each day to understand the difficulties faced. The instructors were given the role of providing the bridge between the psychiatrists' technical information and the teachers. This was done by interspersing the content with icebreakers like folk songs, metaphors and anecdotes. Similar training programmes were organised for another 100 teachers at Mandvi, and in total 538 teachers were trained at Vandhai and Mandvi.

The process of training was participatory and started with introductions to each other and then gave space for teachers to express what they had experienced during the earthquake and their feelings around the trauma. This session was called anxiety sharing, and though initially resisted by the participants it became the part they most remembered about the training. The session, however, did bring up difficult experiences of personal trauma for some participants and a number of teachers broke down while talking about their personal losses. Training further focused on the immediate impact of trauma on people, especially children. Teachers were told about normal responses and the kind of responses that might need help. The symptoms of PTSD were talked about listening skills were focused upon, and some classroom activities were defined. The listening skills that were talked about seemed to be more appropriate to help adults share their experiences. The group was also able to rehearse these skills through role-play. The processes of group intervention and working with children through activities were mentioned. The training of these skills was interspersed with some folklore-based songs, and some other activities that broke the tedium of too much information. These became extremely popular with the group and achieved two objectives, one to get the group to work as a team, and second, to help distract them from their immediate worries. One key

strategy that got reinforced through the whole process was distraction and helping people get distracted.

The Relief and Rehabilitation Phase

By this time the disaster-affected population and their needs start to recede from the headlines of the media as well as the priority list of the help providers. The rebuilding of the disrupted lives of individuals and communities, however, is a continuous process. The attempt at this stage is to try and rebuild the community's institutional structures such that they can over change of activities from the outsiders.

> The media are an important part of disaster relief activities. It is the media that brings to attention the human side of the disaster. However, it is commonly seen that the media are relatively insensitive to people's psychological needs. Often they refer to psychological distress in derogatory terms — mental health needs are projected as 'people going mad' or 'people committing suicide'. This happens due to a lack of correct information. Mental health professionals have to work with the media to help them understand emotional reac-tions, the different phases of such reactions and the correct way to project these issues.

Documentation

There is a lack of documentation of the many innovative experiences of mental health care provided to different disaster-affected populations in the country. It appears that everyone is busy doing something and in this process the experiences do not get written up and the core lessons are not identified. An important role for mental health professionals will be to build up documentation of their ongoing activities of relief and rehabilitation.

National-Level Initiatives

Over a quarter-century of mental health initiatives in the area of disaster care in India has seen the gradual growth of awareness and the development of specific programmes. The other developments of importance are the two national conferences on Psychosocial Consequences of Disasters held in 1993 and 1997 at the National Institute of Mental Health and Neurosciences (NIMHANS), Bangalore (see NIMHANS 1997).

The *India Disaster Report* was published (Parasuram and Unnikrishnan 2000) and a special issue of the *Indian Journal of Social Work* was devoted to the topic (Jaswal 2000). Different groups of professionals have also presented their concerns relating to disasters, for instance on social work training (Murthy 2000; Nadkarni 1991; Pereira 2000; Parasuraman and Acharya 2000), role of mental health professionals (Murthy and Shetty 1995), cultural aspects (Patel 2000), special issues of women (Lokohare and Daver 2000) and community development (Verma and Bhushan 1994). The National Institute of Advanced Studies (NIAS), Bangalore organises annual courses on disaster management for IAS officers and this course includes disaster mental health (Rajagopal and Chari 2003). National-level institutions like NIMHANS in Bangalore, the Tata Institute of Social Sciences (TISS) in Mumbai and Institute of Human Behavior and Allied Sciences (IHBAS) in Delhi are actively involved in services, the training of personnel and research. The progress of the mental health programme in India, namely, its decentralisation, integration with general healthcare and the de-professionalisation of services, are supportive of the approaches developed for disaster mental health care. An awareness of the psychosocial aspects of other forms of 'disasters' is slowly emerging. Investigators have focused on the impact of disasters and emergencies on gender violence (Ali 1997; Purewal and Ganesh 2000), political unrest (Ali and Jaswal 2000), displaced persons (Thukral 1996), drought, poverty and famines (Sen 1981). However, a detailed study of mental health aspects and the development of appropriate interventions in these latter group of disasters is a task that is yet to be undertaken.

Against the many positive developments, that the integration of mental health as part of total disaster care plans has still a long way to go can be seen by two examples. A recent book on disaster management (Lewin 2003; 161–70) includes no separate section on the mental health aspects, in spite of the fact that the training programme on which the book is based included psychosocial aspects in its coverage. The chapter on health and psychosocial consequences has only one line on this subject.

The Tsunami experience of 2004, has taken psychosocial interventions to a higher level of recognition and support. There has been both an increase in the number of centres working with disaster mental health care as well as the use of more sophisticated approaches along with the evaluation of the outcome of interventions (World Health Organisation [WHO] 2006a, 2006b, 2008). A national-level draft policy has also

been developed in the last two years (National Disaster Management Authority 2007).

Lessons Learnt for Psychosocial Care

Based on these experiences, some tentative conclusions can be drawn at this stage. First, the mental health needs of a disaster affected population are now an accepted part of the agenda of disaster care. Second, there is still a strong component of not acknowledging fully the personal suffering and losses of the affected population. Third, community participation in post-disaster rebuilding seems a goal largely unattended. Larger political and administrative changes need to take root and grow for true community participation. Fourth, we do not have a framework for rehabilitation with a long-term perspective. Fifth, it is well recognised that disaster mental health care cannot occur only with outside professionals or resources. Most of the care has to come from within the community. The need, therefore, is for all professionals in general, and mental health professionals in particular, to develop methods of care and intervention that can be adopted by the community.

Mental health professionals' involvement in disasters in India has been active only in the last 20 years. The efforts of these professionals have been in creating awareness about the impact of disasters on the mental health of the affected populations among the general public and policy-makers; providing direct care to the affected populations; training primary care doctors, health workers and volunteers; supporting the initiatives of voluntary organisations and research.

Conclusions

Psychosocial care is an essential aspect of post-disaster response in preventing the adverse effects of such events. This has been firmly established over the last two decades of experience in caring for the survivors of disasters. The emotional reactions witnessed among the survivors of an earthquake are a normal reaction to an abnormal situation; they are directly related to the intensity of the disaster experienced. Very often it is biological changes that determine the occurrence of these symptoms. Post-earthquake events and developments are important in achieving a full recovery. Everyone who goes through an earthquake needs psychosocial care. It is every survivor's right. Moreover, early care leads to better outcomes and can be provided by a variety of people.

Past experiences show that it is entirely possible to develop and implement a programme of psychosocial care. There lies a big advantage in extending psychosocial care to the survivors of an earthquake — besides the improvement in mental health of the population experiencing excess stress, the general popu-lation too will become sensitive to the overall mental health needs, as apparently 'normal' people develop and recover from psychological symptoms resulting from the disaster, and they do this better when help is provided. This can also result in looking at psychological problems as a part of life. In conclusion, a better understanding of the mental health aspects of disasters is developing rapidly all over the world. Indian mental health professionals have contributed to these efforts. Mental health professionals can bring the best of their skills and knowledge to benefit the affected population.

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