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Impact of the tsunami on psychosocial health and well-being

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Summary
Natural and man-made disasters affect everyone in their path. Some people are nevertheless more vulnerable than others and suffer in different ways and to different extents. The tsunami highlighted a number of pre-existing factors that made some people especially vulnerable and it also brought out the ways in which other people became vulnerable as a result of disaster. Major social and demographic shifts occurred, and the social fabric of communities was severely eroded. Gender, age, extent of personal loss, personal experience in terms of how direct or indirect exposure emerged as key factors together with loss of place, problems of temporary and permanent housing, poor income generation and uncertainty about if and when it would be possible to return to original home sites and communities. Host communities were also affected, albeit indirectly. How and to what extent people were psychologically 'damaged' in, and by, the tsunami nevertheless remains poorly defined because of the paucity of real-time monitoring and the fact that in some countries there was little agreement on the nature and classification of psychosocial problems and morbidity.

Introduction

Natural and man-made disasters have always caused psychosocial morbidity of one kind or another. In recent years, and certainly after the war in the Former Yugoslavia, when the implications of conflict for psychosocial health and well-being became better defined, concern for the impact of natural disasters has grown considerably. In the course of the humanitarian response to the tsunami, for example, more resources were allocated to psychosocial themes than at any other time in the history of humanitarian relief. The Tsunami Flash Appeal of January 2005 sought a total of US$977 million, of which US$148.89 million were destined for health and protection work. Of this component, over US$35 million were earmarked for psychosocial activities (United Nations Consolidated Appeals Process, 2005).

Magnitude of the health challenge

Simply in terms of the number of people who were directly affected by it, the tsunami that occurred on 26 December 2005 ranks as the most serious natural disaster ever recorded. In all, approximately 4.35 million people were displaced or affected by it in other ways (World Health Organization Regional Offices for South-East Asia [SEARO], 2005b). In many countries, the damage done to the social and economic infrastructures was also so intense that it set back livelihoods and national economic development. Healthcare infrastructures were also badly damaged if not destroyed in most of the areas. The number of people who died as a result of the tsunami officially remains at 176,685, but this figure could and probably will rise to around 227,000 as people who are still being reported as 'missing' go on to be declared dead or 'assumed dead' (Tsunami Evaluation Coalition, 2005).

Despite predictions to the contrary, the communicable disease surveillance systems that were rapidly and effectively set up in countries reported no major disease outbreaks in the region, a testimony to the preventive value of rapid and comprehensive response strategies and the dangers of unsubstantiated predictions. Disease surveillance systems, however, were not designed to address other health problems, and in the absence of any alternative surveillance, few data were systematically gathered on other causes of morbidity. Many of the reports concerning the prevalence of psychosocial problems thus remain unverified, and in some instances assumptions about the nature and distribution of psychosocial problems were based on relatively untested models (World Health Organization [WHO], 2005). What is clear is that the natural resilience and capacity to cope by populations affected by disaster should not be underestimated

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(Bracken, Giller, & Summerfield, 2005; Carballo & Dzidowska, 2006; International Centre for Migration and Health [ICMH], 2005a). In Aceh and in the Maldives, for example, the religious and spiritual grounding of people appears to have had a strong mitigating effect and to have helped people cope with the situation (Carballo, Heal, & Hernandez, 2005; ICMH, 2005a; Prewitt Diaz & Dayal, 2005).

This is not to say that systematically gathered data on psychosocial issues and needs were not available at all. The University of Indonesia reported that in Aceh province 20–25% of children in the region were in need of professional treatment for psychosocial problems (ADRA, 2005). Depression and psychosomatic illnesses were widely reported, as was a 15–20% increase in the demand for counselling and care, including specialized care (ICMH, 2005a). In India, depression was by far the most commonly reported problem. Psychosocial problems took other forms, as well, however. For example, in January 2005 the UN Office for Coordination of Humanitarian Affairs (OCHA) in Thailand reported that 25% of children in the country had been unable to attend school because of fear of a second tsunami (Office of the Coordination of Humanitarian Affairs [OCHA], 2005), and in the Maldives, where the Ministry of Health initially issued a report saying that as many as 7,000 people might have been traumatized by the tsunami (ICMH, 2005a), many fishermen could not bring themselves to go to sea again for weeks after the incident. Nightmares, anxiety and panic attacks, disbelief, and survivor guilt and anger were reported to be widespread in the communities directly affected by the tsunami. It is not clear how persistent or chronic these were, but in themselves they should be seen as relatively normal responses to the traumatic events people went through.

Although many western relief organizations expected to find a high prevalence of post-traumatic stress disorders (PTSD), it is not clear how common the disorder really was. The cultural specificity of PTSD has been a source of constant debate (Summerfield, 1999). The clinical diagnosis of such a condition depends upon when the diagnosis is made, who makes it and how it is made. In the tsunami affected countries, it was not widely diagnosed or reported. A community-based household survey in fishing villages that had been hit by the tsunami reported a PTSD prevalence of 13%, considerably lower than studies in other disasters (ICMH, 2006; Mollica, Cui, McInnes, & Massagli, 2002). Other studies found that PTSD rates were no higher in affected areas than in randomly selected subject groups (ICMH, 2006). In Sri Lanka where little consensus emerged on the nature of psychosocial problems in general, PTSD as such was not highlighted; and in India, research undertaken in the weeks that followed the disaster reported few diagnosed cases of the syndrome (ICMH, 2005b). On the other hand, six months after the disaster, a series of focus group studies in two villages in Indonesia (Salur and Labuhan) found that the level of fear was still high, and that people were still presenting severe physical and cognitive reactions. These may well be indicative of PTSD, though no association to this effect was made by the authors.

Experience in the former Yugoslavia and other humanitarian emergencies has shown that disasters can have a profound impact on people such as host families who were not directly affected by the critical incidents but are expected to look after and support people who were directly affected (Woersching & Snyder, 2004; Carballo et al., 2004; ICMH, 1996). In the wake of the tsunami there has been little if any discussion or study of the 'contagious' effect of trauma, but work by one of the authors of this paper in the Maldives and Sri Lanka suggests that 'host' communities and families often 'internalized' many of the fears and anxieties held by the displaced people they took into their homes. Thus, even though they were living in safe areas or on safe islands, and had not been directly exposed to the tsunami, they nevertheless began to have nightmares about tidal waves and the loss of kin and homes.

Vulnerability factors

In one-way or another, natural and man-made disasters affect everyone in their path. Some people are nevertheless more vulnerable than others. Those with pre-existing problems (physical and/or psychosocial) and receiving care and treatment appear to be especially vulnerable if and when that care and treatment is interrupted. In addition, elderly people, pregnant women, mothers with young infants and people with disabilities, all of whom are less mobile and more dependent of other people, often feel more powerless when they are confronted by disasters. Disasters also create new types of vulnerability because they disorganize families and the social and economic support systems people have been used to.

Loss of place and livelihood

Disasters provoke sensations of 'loss of place' in which not only are homes and possessions abruptly lost but also everything those places symbolized, including family memories, inter-generational continuity and personal investment (Fullilove, 1996; Almedom, 2004). In uprooting over 1.2 million people from their homes, the tsunami created one of the most abrupt and widespread 'loss of place' incidents ever recorded. In many cases fisher-families

were moved inland to sites that are so far removed from the coast that they cannot move to and from the beach where they need to be to launch boats. They can certainly not do as they used to do, that is to say, move and keep their boats close to their homes. Economic livelihoods have thus been placed at risk by the initial disaster and by well-intentioned yet insensitive initiatives by local authorities and relief organizations. It is also worth noting that many of the temporary houses that have been erected were poorly designed and constructed. In some instances they are in themselves a threat to public health, and a reminder to the occupants that they have become a sort of social flotsam that must be 'cared for' by others, irrespective of how that is done. The fact that there appears to have been little discussion between local authorities (or relief agencies) and displaced 'communities' has added to the feeling by displaced people that they have been left out of the planning debate.

People with special needs

Children. For children, especially younger ones, the tsunami was a major blow to family continuity. The number of children who lost one or both parents is conservatively placed at 20,500, but children in some countries were more badly affected than in others. In Indonesia over 8,300 children were orphaned. Although the number of tsunami orphans in other countries was not as high as Indonesia, the problem remains critical for other reasons (ICMH, 2006). In India for example, 37% of the children who were orphaned by the tsunami were less than five years old. Different strategies are emerging for orphan care. In India, the Parliament quickly passed a resolution in the first weeks of the disaster to formally 'adopt' tsunami orphans and assuring their education and care. In India and elsewhere, care is often being entrusted to orphanages, and while this is not without its logic given that extended families and the potential for fostering is limited, orphanage care is not without its challenges in terms of the type and quality of care provided and the implications of that care for physical and longer term psychosocial and emotional development (Maclean, 2003). Entrusting children to orphanages irrespective of whether they lost only one or both parents has become a source of emotional confusion for some children who cannot come to terms with the idea that poor coping on the part of surviving parents and/or their poor financial situation should be grounds for placing them in orphanages (ICMH, 2006; India Info, 2005). Among the many child psychosocial implications that have emerged in the wake of the tsunami, eating and sleep disorders and fear of the sea have been the most pervasive. Survivor guilt also remains problematic. In the Maldives, for example, children are reported to have become obsessed with feelings of guilt at what they see as their personal failure to hold younger siblings aloft in the water or to keep hold on them when the sea swept back (Carballo et al., 2004; Marzo, 2001). A study of 16,818 children in 38 villages in Kerala 6–9 months after the tsunami found that 1093 of them still complained of chronic fear; 839 said they still feared water; 556 reported constant headaches and frequent stomach pain; 460 had sleep disorders; 276 were still described as in a state of shock; 43 had developed asthma; 16 had lost their speech and were unable to function without help; 20 had lost their hearing, and 16 had lost their eyesight. Some children were still not able to go to school and of those who did, 1164 were reported to have short attention spans and loss of concentration; another 117 were described as socially withdrawn. Overall, 33 children were said to be suffering from severe psychological problems; 1081 moderate psychosocial problems; and 13,274 were described as having mild psychosocial problems (ICMH, 2006; India Info, 2005).

Gender. For a variety of social, cultural and biological reasons, women in some parts of the world tend to be more psychosocially 'at risk' than men even before disasters strike. The tsunami did much to highlight this pre-existing 'at-riskness'. In some tsunami-affected communities female mortality was three times higher than that of men and the complex post-disaster vulnerability of women has also become apparent. Just as in other disaster settings, it has revolved in great part around the susceptibility of women to sexual abuse and violence (Carballo & Frajzngier, 2001; Turner & Carballo, 2001). In Sri Lanka and Indonesia rape became such a pronounced problem within the first few days and weeks following the tsunami that many relief groups asked for rape prevention and care to be given preferential prominence (ICMH, 2005a). Fear of rape became so widespread among 'unaccompanied' women living in temporary shelters in southern Sri Lanka and Aceh province that many refused to leave their shelters after dusk, and reports of panic attacks were common when women had to share tents and shelters with men they did not know (Breaking News, 2005). The sexual vulnerability of women is not the only concern. Their economic losses were at times exacerbated by custom and by the fact that under Sharia law, many of them may not be entitled to inherit land or other possessions. For women who lost spouses as well as homes, the future has thus become a major cause of anxiety (ICMH, 2005a). The loss of children, which is

always a source of anguish, has been made worse in some areas by the fact that the status of women is often tightly linked to their capacity to bear children. In parts of India where many of the women who lost children had undergone sterilization procedures, demands for reversal of sterilization have become common and health authorities are now taking steps to find ways of doing this. The literature on disasters and the impact of them on society and families has traditionally seen women, children and the elderly as the main 'losers', but the tsunami was a reminder that men too suffer insults to their psychosocial well-being and coping abilities. In losing their homes, fishing boats and capacity to earn a living as heads of households, they also lost self-esteem and a sense of worth. The high mortality of women has also meant that many men became widowers in societies where this is not common among reproductive-age groups. This dramatically changed status and role of men has become a problem that relief agencies were ill prepared to manage (ICMH, 2005b). For some men the answer is being found in rapid remarriage and, for example, in Passakuda, a small community in Sri Lanka, 31 of the 37 men who lost their wives have already found new wives. Newspaper accounts suggest that a similar phenomenon is evolving in Aceh province in Indonesia and elsewhere (Washington Post, 2005). Even so, the implications of the tsunami for the psychosocial health and well-being of men remain a poorly understood and responded to problem.

Elderly. The vulnerability and psychosocial needs of the elderly have often been overlooked in disaster relief efforts. In part this is because the needs of the elderly are often assumed to be the same as those of other adults (Carballo & Dzidowska, 2006 in press). This unfortunately is not the case. Pre-existing chronic physical problems and the frequent need for prostheses (teeth, eyeglasses, walking sticks and other aids) make the elderly a highly vulnerable group even in normal situations. In disaster settings these are more often lost than retained, and are only replaced with great difficulty. Their psychosocial needs are equally challenged. Predictability, structure, and family support and continuity are easily lost and not regained. In the tsunami not only were many of these aids and life qualities lost, but the social and economic support that typically comes from extended family support systems was also lost leaving many people bereft of any tangible assistance. In all heavily affected countries, insensitivity of relief aid presented an additional challenge as elderly individuals were often unable to masticate the high energy bars provided in emergency food rations (ICMH, 2005a). One year on, anecdotal reports suggest that the elderly continue to be overlooked and that many of their unique needs still go unattended. Help Age found that few if any special measures have been taken to ensure that the elderly will get their share of food and other supplies, including medicines (Help Age International; ICMH, 2005b).

Disabilities. As with all disasters, the tsunami also left many people with new physical disabilities that could not be adequately treated at the time. In some settings there was a period of intense need for emergency surgery, including amputations, and in Aceh province the demand for prostheses at times outpaced availability. The loss of limbs is always psychologically traumatizing and calls for immediate and sustained counselling, but many amputees had to go without support and find their own ways of dealing with the reality of losing limbs and hence the possibility of returning to occupations such as fishing (Carballo et al., 2005; ICMH, 2005a).

Housing. There were few housing options available for displaced people, and temporary camps and tent cities sprang up quickly in the areas to which people fled or were moved. With time these initial camps were gradually replaced by more permanent but still very transitional shelters of varying quality. In many cases the size of these shelters, the type of materials used, their location and their 'urban planning' has become a source of psychosocial as well as public health concern. Many of the shelters are small and overcrowding and promiscuity is a problem. 'Designs' failed to make concession to the need for privacy, sometimes with the argument that people in the region were used to living in fairly cramped areas and that these shelters were only expected to be needed for two or three years. From a psychosocial perspective what has also been overlooked is that, although most of the people who were displaced were poor, they were economically independent, and that despite the fact that their homes were often poorly constructed and lacking in commodities, they were nevertheless 'owned' by the families in them. The loss of these homes and the move to anonymous shelters and camps has called for a shift in perspective that many displaced people are having difficulty accommodating. The fact that many displaced people also lost their perceived 'right to return' is taking an even greater toll. Few national or local authorities have been able (or taken the time) to explain what are the chances or impediments to an eventual return to their original home sites, may also have made the feeling of isolation and neglect even more pronounced (ICMH, 2005b).

Host families. In addition to the thousands who were housed in camps, hundreds of thousands of other displaced people were taken in by host families. At first this was a source of pride, but with time problems have begun to emerge. Host families, about whom little is known in terms of their own psychosocial problems and needs, have increasingly come to perceive displaced people as invading their private space, being given supplies they themselves are not privy to, and in general being more favourably treated by the relief community and national government. The problem is not a small one. One year after the tsunami, over 234,000 families in Sri Lanka alone remain in camps or in host families and this may well continue for 2–3 years to come (ICMH, 2006). The situation in Indonesia and India is not much better and host families and communities that initially volunteered their homes are also growing frustrated at the lack of a clear policy or strategy for resettlement of displaced people.

Health workers. Displaced people and host families were not the only ones affected by the tsunami. For hundreds of healthcare workers and others, the tsunami was the source of serious burnout. The magnitude of dead body management needs, especially in Thailand where tourists constituted an important proportion of the victims and where for legal, personal family and insurance reasons bodies required special identification, health workers, police and others were called on to handle large numbers of dead and decomposed bodies. There were rarely sufficient refrigeration facilities to meet the need, and most staff had never been trained or otherwise prepared for the tasks they were called on to undertake. Poor information about the non-infectivity of dead and decomposing bodies also meant that many of those who were called on to handle corpses felt they were being exposed to health threats. Pressure from families was meanwhile intense and here again there was little preparation of body handlers to deal with this (Chan & Huak, 2004; ICMH, 2005a; ICMH, 2006). The scale of the load on healthcare workers may well continue to be high in most of the countries concerned. For although they are not without mental health staff and infrastructures, the approach to treatment and care has traditionally been hospital-based and psychiatrist oriented. In the Maldives, there are only two psychiatrists and both are located in the capital. In Indonesia, there are only 500 registered clinical psychologists serving the entire country (1/420,000) and in the other countries the distribution of trained staff capable of managing the magnitude of the needs that have emerged is poor (ICMH, 2005a, 2005b). Although a large number of external groups came to assist with psychosocial work, many if not most of them were ill prepared from a social and cultural perspective. They were unfamiliar with the language, local diagnostic terms and procedures and were largely unable to assist. This was often a cause of serious misunderstandings between them and local health authorities and at times led to a rejection of the support they might have been able to offer (ICMH, 2005b; SEARO, 2005a).

Conclusions

The tsunami highlighted the complexity of the relationship between natural disasters and psychosocial response and needs (Almedom & Summerfield, 2004), and once again brought to light the need for countries and organizations to do much more with respect to preparing for the psychosocial implications of future natural and man-made disasters. It was also a reminder that disasters are not static phenomenon and that the psychosocial needs and capabilities of people in disaster settings can evolve quickly. In particular, the tsunami brought out an often overlooked fact, namely the instinctive capacity of people to respond to disasters, cope with extreme duress and quickly seek normalcy. This resilience has tended to be under-estimated in the past and not adequately built on and strengthened by humanitarian relief groups. In this regard, the tsunami also highlighted the important role of religious and local community leaders and the fact that they can and do play an important role and should be given more consideration with regard to psychosocial interventions designed to help communities respond to disaster.

It is also clear that relatively little is known with precision about how and to what extent the tsunami affected the psychosocial health and well-being of people. There was little real-time monitoring of the situation, and many of the data that have emerged are not population-based or representative of the overall situation. Even if they had been, there is no evidence that standard procedures for measuring the psychosocial impact of the disaster were available to national or international groups. Much more attention thus needs to be given to this if lessons are to be learned and preparedness planning made more technically situation and culture specific. More debate is also needed on the nature of 'trauma' and the type of support people need in different cultural settings, what the content of that help and care should be, and how and by whom it should be provided. There was a tendency on the part of many relief organizations to assume that the incidence of PTSD would be high and that relief operations

would have to emphasize the treatment of this. In fact PTSD was diagnosed and reported with relative infrequency, whereas depression was reported far more.

Lessons have also emerged with respect to the management of displacement and the fact that displaced people should be involved as much as possible in discussing their future and the likelihood of being able to return to their homes and original communities. When this is not respected, misunderstandings and anxiety quickly emerge and cause unnecessary problems for everyone concerned.

It is also clear that in many parts of the world the capacity of existing health and social services to provide psychosocial support is limited. The desire by external groups to help in disasters, however, should not eclipse the need for solid training in ethno-medicine and ethno-psychosocial issues. Many of the groups that rushed to the tsunami affected zones were sufficiently unfamiliar with the socio-cultural and epidemiological conditions that they were unable to provide the type of psychosocial help needed. It should also be borne in mind that although hundreds of relief agencies came to work on psychosocial issues, few have stayed on; a reminder that humanitarian relief is often seen as short-term by the agencies and the donors involved when in fact many of the problems are of a longer nature. That most of the agencies have already gone is also a reminder that recovery strategies are ultimately the task of local communities and health and social authorities. External groups cannot always be relied on to stay for long periods. Strengthening the capacity of local communities thus needs to be given far more priority than it has in the past, and there needs to be far greater acknowledgement of the role they can and do play in developing and sustaining psychosocial as well as other health actions.

Hundreds of thousands of people remain displaced from their original homes, work places and their options for a return to gainful employment. If the psychosocial impact of the tsunami is to be mitigated, far more attention will have to be urgently given to the needs of displaced people and to their right of voluntary return. This is easier said than done. Many of the coastal zones in which people lived have been declared dangerous and it will be difficult for people to rebuild as proximately to the sea as they previously had done. The implications of not being able to do this will be far-reaching for fishermen and calls for far more sensitivity than it appears to be getting.

More children have been left without parents than in any other natural or recent man-made disaster and this in settings where satisfactory alternatives may be difficult to identify. The option of orphanages raises as many questions as solutions. For the sake of the children who have already gone through one major trauma and who may now not have access to the type of care and attention they need, more research and training is probably called for in this area.

The vulnerability of women and the elderly, as well as children has again thrown light on the fragile nature of their status in many parts of the world and calls for far more attention than it has been given in the past. That many displaced women should have found themselves in the same (small) shelters as men they did not know is indicative of how relief organizations tend to overlook this problem and in doing so unnecessarily expose women to the risk of abuse and psychosocial distress.

In the early phase of the response the natural resilience of local populations to withstand disaster played a large role in their physical and psychosocial 'survival' and this, together with the role of religion and religious leaders, is a lesson that deserves attention in disaster preparedness and mitigation planning. It is also important that relief agencies and national authorities understand that health workers and others involved in relief also have needs and that if these are underestimated the danger for burnout will be high.

The likelihood of another huge tsunami is probably small, but the likelihood of other natural disasters occurring in the same region and elsewhere is high. Learning lessons from the tsunami and its psychosocial impact on people is essential if international and national authorities are to respond in meaningful and effective ways in the future.

References

ADRA. (2005). *Tsunami Response Rep No. 34*. 16 May 2005.

Almedom, A. M. (2004). Factors that mitigate war-induced anxiety and mental distress. *Journal of Biosocial Science*, *36*, 445–461.

Almedom, A. M., & Summerfield, D. (2004). Mental well-being in settings of 'complex-emergency': An overview. *Journal of Biosocial Science*, *36*, 381–388.

Bracken, P. J., Giller, J. E., & Summerfield, D. (2005). Psychological responses to war and atrocity: The limitations of current concepts. *Social Science & Medicine*, *365*, 833–844.

Breaking News. (2005). *Tsunami survivors now fear rape*. Jan 2005. Accessed on World Wide Web via: http://breaking.tcm.ie/2005/01/05/story183376.html

Carballo, M., Smajkic, A., Zeric, D., Dzidowska, M., Gebre-Medhin, J., & Van Halem, J. (2004). Mental health and coping in a war situation: The case of Bosnia and Herzegovina. *Journal of Biosocial Science*, *36*, 463–477.

Carballo, M., Heal, B., & Hernandez, M. (2005). Psychosocial aspects of the Tsunami. *Journal of the Royal Society of Medicine*, *98*, 396–399.

Carballo, M., & Dzidowska, M. (2006). Notes on implications of complex-emergencies for the elderly. *International Centre for Migration and Health [ICMH] Newsletter* (in press).

Carballo, M., & Frajzngier, J. (2001). Reproductive Health in the Context of Forced Migration. *International Centre for Migration and Health*.

Chan, A., & Huak, C. Y. (2004). Emotional Impact of 2004 Asian tsunami on Singapore medical relief workers. *International Journal of Disaster Medicine*, *2*(4), 152–156.

Fullilove, M. T. (1996). Psychiatric implications for displacement: Contributions from the psychology of place. *American Journal of Psychiatry*, *153*, 1516–1523.

Help Age International. Indian Ocean Tsunami section. Accessed on World Wide Web via: http://www.helpage.org/Emergencies/IndianOceantsunami

India Info. (2005). *Tsunami continues to haunt children in coastal areas*. 10 October 2005. Access on World Wide Web via: http://news.indiainfo.com/2005/10/10/1010tsunami-coastal-areas.html

International Centre for Migration and Health (ICMH). (1996). Health and social situations of displaced people in Bosnia and Herzegovina. *International Centre for Migration and Health [ICMH] Newsletter*, December.

International Centre for Migration and Health (ICMH). (2005a). *Public health consequences of the tsunami: Impact on displaced people*. Volume I, November.

International Centre for Migration and Health (ICMH). (2005b). *Meeting report: Public health consequences of the tsunami, with special reference to displaced people*. Taipei, Taiwan, 18–20 November 2005.

International Centre for Migration and Health (ICMH). (2006). *Public health consequences of the tsunami: Impact on displaced people*. Volume II (in press).

Maclean, K. (2003). The impact of institutionalisation on child development. *Developmental Psychopathology*, *15*, 853–884.

Marzo, D. (2001). *Why not me? Dealing with survivor guilt in the aftermath of a disaster*. Self-help Magazine. Accessed on World Wide Web via: http://www.selfhelpmagazine.com/articles/trauma/guilt.html

Mollica, R. F., Cui, X., McInnes, K., & Massagli, M. P. (2002). Science-based policy for psychosocial interventions in refugee camps: Cambodian example. *Journal of Nervous & Mental Disorders*, *190*, 158–166.

Office of the Coordination of Humanitarian Affairs (OCHA). (2005). *Indonesia, Maldives, Sri Lanka, Thailand: Earthquake and Tsunami Situation Report 22* (28 Jan 2005). Accessed on World Wide Web via: http://www.undp.org/bcpr/disred/documents/tsunami/ocha/sitrep22.pdf

Prewitt Diaz, J., & Dayal, A. (2005). The relationship between the WHO and the ARC in the development of a community base—formal and informal behavioural health model. American Red Cross. Technical Notes #8, 2005.

Summerfield, D. (1999). A critique of seven assumptions behind psychological trauma programmes in war-affected areas. *Social Science & Medicine*, *48*, 1449–1462.

Tsunami Evaluation Coalition (TEC). (2005). *Initial Findings*, December 2005.

Turner, J., & Carballo, M. (2001). Reproductive health and sexual violence in refugee settings: Organisational response. *International Centre for Migration and Health*.

United Nations Consolidated Appeals Process. (2005). *Indian Ocean Earthquake-Tsunami 2005 Flash Appeal*.

Washington Post. (2005). *New wives bring new hope to Sri Lankan widowers*. August 2005. Accessed on World Wide Web via: http://www.washingtonpost.com/wpdyn/content/article/2005/08/23/AR2005082301252.html

Woersching, J. C., & Snyder, A. E. (2004). Earthquakes in El Salvador: A descriptive study of health concerns in a rural community and the clinical implications. Part III—Mental Health and psychosocial effects. *Disaster Manage Response*, *2*, 40–45.

World Health Organization Regional Office for South-East Asia (SEARO). (2005a). *Manual for community level workers to provide psychosocial care to communities affected by the tsunami disaster*, January 2005.

World Health Organization Regional Office for South-East Asia (SEARO). (2005b). *Responding to communicable diseases following the Tsunami in South-East Asia*, December 2005.

World Health Organization (WHO). (2005). *Mental health assistance to the populations affected by the tsunami in Asia*.