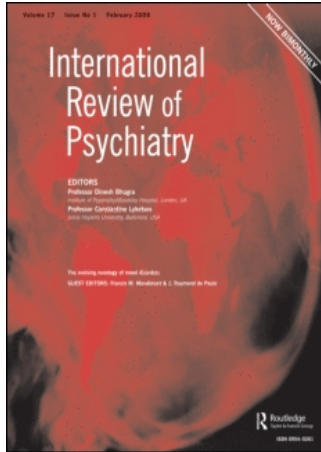


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## Mass violence and mental health - Recent epidemiological findings

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### Abstract

There is growing awareness of the mental health impact of all types of mass violence. The exposure of large population groups, mostly having no mental health problems prior to the exposure, and the subsequent development, in a significant proportion of the population, of a variety of psychiatric symptoms and disorders represent both a challenge and an opportunity for psychiatrists. There is sufficient evidence from the variety of mass violence/conflict situations, that a significant proportion of the exposed population develop different mental disorders. There are vulnerable groups like women, children, widows, orphans, elderly, disabled, those exposed to severe pain and loss of body parts. There is also a consistent finding of the dose-response to the amount of trauma and the prevalence of mental disorders. There is growing recognition that there is need to consider a variety of syndromes, in addition to post-traumatic stress disorder (PTSD) like acute stress disorder (ASD), depression, complicated bereavement reactions, substance use disorders, poor physical health, fear, anxiety, physiological arousal, somatisation, anger control, functional disability and arrest or regression of childhood developmental progression. The challenge is to reach all of the ill persons and provide mental health services. The opportunity provided by this field is to develop a better understanding of issues of resilience, recovery and effectiveness of public health approaches to mental health care.

### Introduction

In recent years, especially the last five years, since the 11 September 2001 World Trade Centre bombings, there is growing literature on the mental health effects of mass violence/disasters. Before 1980, the English language literature on what is now called as PTSD included 207 published articles. In comparison, the current National Centre for PTSDs ([www.ncptsd.va.gov](http://www.ncptsd.va.gov)) Pilots database is over 28 000 citations (Ritchie, Watson, & Friedman, 2006). The area offers a number of challenges to the mental health professionals. The challenge is to reach all of the ill persons and provide mental health services. The opportunity is to understand the issues of resilience, recovery and effectiveness of public health approaches to mental health care.

Wars have played an important part in psychiatric history in a number of ways (Ritchie, 2004). It was the psychological impact of the world wars, described variously as, 'shell shock', 'not yet diagnosed, nervous', 'battle fatigue' that brought to focus the effects of war on mental health of individuals and supported the effectiveness of psychological interventions during the first half of the twentieth century.

Further, it was the recognition of a proportion of the population not suitable for army recruitment during the Second World War that spurred the setting up of the National Institute of Mental Health in USA. The differences in the presentation of the psychological symptoms among the officers and the soldiers opened up new ways of understanding the psychiatric reactions to stress (Srinivasa Murthy & Lakshminarayana, 2006).

The World Health Report (WHO, 2001) estimated that, in the situations of armed conflicts throughout the world, '10% of the people who experience traumatic events will have serious mental health problems and another 10% will develop behaviour that will hinder their ability to function effectively. The most common conditions are depression, anxiety and psychosomatic problems such as insomnia, or back and stomach aches.'

During the last 5 years, a large number of books and documents have addressed the effects of mass violence on mental health. They include the WPA book *Disasters and Mental Health* (Lopez-Ibor, Christodolou, & Maj, 2005); the World Bank report *Mental health and conflicts – Conceptual framework and approaches* (Baingana, Fannon, & Thomas, 2005);

the United Nations (UN) book *Trauma interventions in war and peace: prevention, practice and policy* (Green, Friedman, & de Jong, 2003); the United Nations Children's Fund (UNICEF) document 'The state of the world's children – Childhood under threat' (2005); the book *Trauma and the role of mental health in post-conflict recovery* (Mollica, Guerra, & Bhasin, 2004), the review of the psychological interventions to address the needs of affected populations (Butler, Panzer, & Goldfrank, 2003; Critical Half, 2006; Diaz, Srinivasa Murthy, & Lakshminarayana, 2006; Ghosh, Mohit, & Srinivasa Murthy, 2004; Loughry et al., 2003; NIMH, 2002; Ritchie et al., 2006; Van Ommeran et al., 2005; WHO, 2003). The most recent development in this direction is the development of Inter Agency Standing Committee guidelines (IASC, 2007) and fact sheets and the WPA–WHO joint statement on the role of psychiatrists in disasters response (Mezzich & Saraceno, 2007).

This paper briefly reviews the evidence from published literature about the impact of mass violence on the mental health of the general population, the refugees, the soldiers and other vulnerable groups. For the purpose of this paper, the coverage includes both wars waged between countries, conflicts within countries and terrorism. The review presents data concerning some major wars/conflicts in the last five years, and the risk factors emerging from the literature.

The following questions addressed in the review are: Is there evidence of rates of mental disorders in response to exposure to mass violence? Are there specific vulnerable groups? What is the relationship of the 'trauma' and the occurrence of mental health effects? What are the areas that need further research in this field? The above questions are addressed in the context of a number of countries and a summary of the findings. The coverage of the countries is not exhaustive but illustrative of the epidemiological basis for the mental health effects of the last 5 years.

### **Impact of mass violence on mental health**

#### *Vietnam*

The impact of the Vietnam War has been a significant contributor to the understanding of mental health effects of war. The high PTSD rates identified in the Vietnam veterans have been an ongoing controversy. Critics have argued that the 30.9% life time rate of PTSD is twice as high as the proportion of veterans who served in the combat roles. This anomaly has raised questions about the accuracy of the retrospective reports of PTSD symptoms and war zone stressors that qualify as traumatic.

In the last year, this issue has been examined thoroughly by reassessing the information from different sources about trauma and its relation to the prevalence of PTSD. Dohrenwend et al. (2006) used the 'military records to construct a new exposure measure and to cross-check exposure reports in diagnoses of 260 Vietnam veterans'. This reexamination found little evidence of falsification, an even stronger dose-response relationship, and psychological costs that were lower than previously estimated but still substantial. They reported the fully adjusted PTSD rates of 18.7% of life time war related PTSD and 9.1% currently suffering from PTSD, more than a decade after the war.

#### *Afghanistan*

More than two decades of conflict have led to widespread human suffering and population displacement in Afghanistan. Two recent studies from this country are significant in terms of both their scope and their findings.

The first study (Cardozo, Bilukha, & Gotway Crawford, 2004) used a national multistage cluster population-based survey including 799 adult household members aged 15 years and above. Sixty-two per cent of respondents reported experiencing at least four trauma events during the previous ten years. Symptoms of depression were found in 67.7% of respondents, symptoms of anxiety in 72.2%, and post-traumatic stress disorder (PTSD) in 42%. The disabled and women had a poorer mental health status, and there was a significant relationship between the mental health status and traumatic events. Coping strategies included religious and spiritual practices.

The second study (Scholte, Olff, & Ventevogel, 2004), using a cross-sectional multicenter sample, was conducted in the Nangarhar province of Afghanistan, to estimate the prevalence of psychiatric symptoms, identify resources used for emotional support and risk factors, and assess the present coverage of basic needs. About 1011 respondents aged 15 years and above formed the sample. Nearly half of the population had experienced traumatic events. Symptoms of depression were observed in 38.5% of respondents, symptoms of anxiety in 51.8% and PTSD in 20.4%. High rates of symptoms were associated with higher numbers of traumatic events experienced. Women had higher rates than men. The main sources of emotional support were religion and family.

#### *Iraq*

Iraq has been at war at numerous times in recent history: a series of coups in the 1960s, the Iran-Iraq

war (1980–1988), the anti-Kurdish Al-Anfal campaign within the country (1986–1989), the Iraqi invasion of Kuwait resulting in the Gulf war (1991), and the continuing conflict starting with the regime change in March 2003.

Prior to the regime change, a study on 45 Kurdish families in two camps reported that PTSD was present in 87% of children and 60% of their caregivers (Ahmed & Sifi, 2000). During the last four years of occupation by foreign forces, there have been many reports about the mental health of the population.

During 2006, with the support of the Japanese Government, the World Health Organisation, Iraq office, and the Iraq National Mental Health Council, Ministry of Health, Iraq, two studies of prevalence of mental disorders in children were completed in the cities of Baghdad and Mosul. In the first study, of the 600 primary school children from 16 schools from Baghdad studied, 47% reported exposure to a major traumatic event during the last two years. The prevalence of PTSD was 14% (M:F:10%:17%). In the second study, 1090 adolescents from 8 secondary schools were screened for mental disorders. 29.6% of the adolescents (M:F:26%:32%) were found to be suffering from PTSD symptoms. There were higher rates of PTSD in the older adolescents; 92% of the ill adolescents had not received any treatment (Rajoki et al., 2006). In another report the Association of Psychologists of Iraq (API), based on a countrywide survey of 1000 children in 2006, reported '92% were found to have learning impediments, 50% were in a critical state of fear'. A special issue of the *Journal of Muslim Mental Health* (2006) covers the wide variety of issues relating to the Iraq war.

Another very important source of the mental health impact of the Iraq war comes from the US armed forces. The annual surveys of the US army provide very interesting findings. In order to assess behavioural health care requirements of soldiers, annual studies have been conducted in September 2003, October 2004 and October and November 2005. The combat experience of the soldiers on seven combat exposures showed the rate to be 85% in the first time deployers. The prevalence rates for acute stress symptoms (13.6%); depression (8%); anxiety (7.6%) and any psychiatric problem (16.5%). The rates among the multiple deployers were higher for acute stress symptoms. US soldiers serving repeated Iraq deployments are 50% more likely than those with one tour to suffer from acute combat stress, raising their risk of post-traumatic stress disorder. Fourteen per cent of soldiers surveyed said they have taken medications, such as antidepressants, for mental health problems. The report also found a doubling of suicides among soldiers serving in the Iraq war from 2004 to 2005.

Twenty-two soldiers took their own lives in Iraq and Kuwait in 2005, compared with 11 in 2004 and 25 in 2003, Army officials said. The stigma associated with seeking help also decreased, with 28% of soldiers expressing concern that they would be seen as weak if they did so, compared with more than 30% in the 2003 and 2004 surveys. (MHAT-III, 2006). The Army survey findings are important both in terms of the systematic survey but also that the rates are seen in spite of the large number of behavioural help providers (230 carers for about 150 000 armed personnel) and a specific programme to address the suicide problem.

In another study, (Seal et al., 2007) 103 788 US veterans separated from military service in Afghanistan and Iraq, and first seen at Veterans Administration health care facilities between September 2001 and September 2005, were studied for the clinical circumstances of and subgroups at greatest risk for mental health disorders. Twenty-five per cent received mental health diagnoses, 56% of whom had two or more distinct mental health diagnoses. Importantly, 60% of diagnosis was made in non-mental health clinics, mostly primary care settings. The youngest age group were at greatest risk. Authors (Seal et al., 2007) call for improvements in the primary prevention of military service-related mental health disorders and for early detection and evidence-based treatment in primary health care settings.

It is significant that the recently released Task Force Report of the American Psychological Association on military deployment services concluded that many service personnel and their family members are going without mental health care because of the limited availability of such care and the barriers to accessing care (APA, 2007).

The task of providing care for the over 25 million civilian population of Iraq exposed to the trauma of conflict, against the background of very limited trained professionals will be a challenge for many years to come in Iraq.

### *Iran*

A very significant study was completed in Iran to understand the long-term impact of Iran-Iraq war of 1980–1988. In this study, 2764 subjects selected through cluster sampling from three zones with differing levels of exposure to war trauma, were studied using Farsi version of the Composite International Diagnostic Instrument (CIDI). In the total sample, 30.9% of subjects suffered from psychiatric disorders; there was a direct relationship with the degree of exposure to the war experience. In the higher zone population, the rate was 35.3%, in the intermediate zone 29.1% and in the least

exposed zone it was 19.1%. The rates were more in those exposed to war than those who were not exposed to war. The most common psychiatric disorders were PTSD, depressive disorders and panic disorder. The prevalence of PTSD and panic disorder was higher in the higher exposure zone than the other two zones (Abhari, 2003).

#### *Israel*

Israel has been in a situation of conflict for over four decades. A large number of systematic studies have been undertaken in different population groups. A recent study (Bleich, Gelkopf, & Solomon, 2003) found that 76.7% of subjects exposed to war-related trauma had at least one traumatic stress-related symptom, while 9.4% met the criteria for acute stress disorder. The most common coping mechanisms were active information search about loved ones and social support. Another study (Benyamini & Solomon, 2005) reported that, 20 years after the war with Lebanon, an initial combat stress reaction, PTSD-related chronic diseases and physical symptoms were associated with a greater engagement in risk behaviours.

#### *Lebanon*

There have been a number of studies from Lebanon demonstrating the effects of war (Ghosh & Srinivasa Murthy, 2006; Srinivasamurthy & Lakshminarayana, 2006).

A recent study of the prevalence and treatment of mental disorders in Lebanon, as part of the WHO supported World Mental Health survey, gives evidence of the long term impact of war on mental health. A nationally representative sample (drawn from the adult population of Lebanon) of 2857 adults (aged 18 years and above) using the Composite International Diagnostic Instrument (CIDI). The study found that 17% met criteria for at least one 12-month DSM-IV/CIDI disorder, of which 27% were classified as serious in severity. It is significant to note that nearly half of the respondents had a history of exposure to war-related traumatic events. Significantly elevated odds-ratios of mood, anxiety and impulse control disorders were associated with two or more war related traumatic events resulting in substantially higher proportions of moderate and severe 12 month mental disorders in respondents exposed to multiple war related traumata compared with other respondents. Another interesting finding is the low rate of treatment utilization (10.9%) by the 12-month disorder group in the general medical sector.

#### *Palestine*

The reports of mental health impact of the ongoing conflict in Palestine is significant as Palestine represents a very high level of conflict situation – both in terms of the degree and the duration of mass violence. It is also significant that different research groups have studied the mental health impact at different time periods and population groups. During the last 5 years, a number of studies have reported high levels of psychosocial problems among children and adolescents in occupied territories of Palestine.

A study conducted by the Gaza Community Mental Health Programme among children aged 10–19 years (Quota et al., 2003) reported that 32.7% suffered from PTSD symptoms requiring psychological intervention, 49.2% from moderate PTSD symptoms, 15.6% from mild PTSD symptoms, and only 2.5% had no symptoms. Boys had higher rates (58%) than girls (42%), and children living in camps suffered more than children living in towns (84.1% and 15.8% respectively).

A study on Palestinian perceptions of their living conditions during the Second Intifada (Thabet et al., 2003) found that 46% of parents reported aggressive behaviour among their children, 38% noted bad school results, 27% reported bed wetting, while 39% stated that their children suffered from nightmares. This study also revealed that more refugee (53%) than non-refugee (41%) children behaved aggressively. Thirty-eight per cent of the respondents said that shooting was the main influence, 34% stated that it was violence on TV, 7% cited confinement at home and 11% reported that it was the arrest and beating of relatives and neighbours. Seventy per cent of refugees and non-refugees stated that they had not received any psychological support for the problems of their children.

In a series of studies, the Gaza Community Mental Health Centre (Sarraj & Quota, 2005), the most prevalent types of trauma exposure for children were witnessing funerals (95%), witness to shooting (83%), seeing injured or dead strangers (67%) and family member injured or killed (62%). Among children living in the area of bombardments, 54% suffered from severe, 33.5% from moderate and 11% from mild or and doubtful levels of PTSD. Girls were more vulnerable.

In another study covering 959 children from the Gaza Strip, (453 boys and 506 girls) in the ages ranging from 6 to 12 years, teachers completed the Rutter scale B2 to identify children with psychiatric problems. The case incidence in boys was 247 (54.5%), while in girls it was 215 (46.5%). The differences between boys and girls were statistically significant, with boys rated by teachers

with a significantly higher caseness (caseness refers to number of persons identified as having psychiatric problem by the teacher using the scale) (Thabet & Vostanis, 2001a).

In another study, 286 Palestinian children of 9–18 years of age and their mothers in the Gaza Strip were studied for the traumatic events recollected by children living in areas of conflict, the prevalence of post-traumatic stress reactions and the relationship between children's and mothers' mental health were investigated. Children experienced on average four traumatic events; one third reported significant post-traumatic stress reactions. The stress scores were higher among girls and mothers. GHQ scores significantly predicted children's stress scores (Thabet & Vostanis, 2001b).

Thabet et al. (2002) studied 91 children exposed to home bombardment and demolition during Al Aqsa Intifada, and 89 controls who had been exposed to other types of traumatic events related to political violence completed self-report measures of post-traumatic stress, anxiety, and fears. Significantly more children exposed to bombardment and home demolition reported symptoms of post-traumatic stress and fear than controls. Fifty-four (59%) of 91 exposed children and 22 (25%) of 89 controls reported post-traumatic stress reactions of clinical importance. Exposure to bombardment was the strongest predictor of post-traumatic stress reactions. By contrast, children exposed to other events, mainly through the media and adults, reported more anticipatory anxiety and cognitive expressions of distress than children who were directly exposed.

De Jong, Komproe and Van Ommeren (2003) assessed 3048 respondents from post-conflict communities in Algeria, Cambodia, Ethiopia, and Palestine with the aim of establishing the prevalence of mood disorder, somatoform disorder, posttraumatic stress disorder (PTSD), and other anxiety disorders. PTSD and other anxiety disorders were the most frequent problems. In three countries, PTSD was the most likely disorder in individuals exposed to violence associated with armed conflict, but such violence was a common risk factor for various disorders and comorbidity combinations in different settings. In three countries, anxiety disorder was reported most in people who had not been exposed to such violence. Experience of violence associated with armed conflict was associated with higher rates of disorder that ranged from a risk ratio of 2.10 for anxiety in Algeria to 10.03 for PTSD in Palestine.

Quota et al. (2003) studied 121 Palestinian children (6–16 years; 45% girls and 55% boys) living in the area of bombardment. The mothers and the children themselves reported their exposure to

military violence (being personally the target of violence or witnessing it towards others) and symptoms of posttraumatic stress disorders (intrusion, avoidance and hypervigilance). The results showed that 54% of the children suffered from severe, 33.5% from moderate and 11% from mild and doubtful levels of PTSD. Girls were more vulnerable; 58% of them suffered from severe PTSD, and none scored on the mild or doubtful levels of PTSD. The child's gender and age, mother's education and PTSD symptoms were significant, and the exposure to traumatic experiences marginally significant determinants of children's PTSD symptoms.

Another set of studies have focused on the quality of life of the population under occupation (Giacaman, Matarieh, Nguyen-Gillham, & Safieh, 2004a, Giacaman, 2004b). The Israeli military occupation/lack of freedom and its consequences on life were clearly top determinants for the quality of life. The political context of military occupation and instability was generally seen as an important cause of daily life problems including mental health states and the loss of dignity (highly valued in the local culture) contributing to a negative impact on life quality. Displacement was also an important issue among those who live in the Ramallah District camp. Women from poor backgrounds tended to emphasise unemployment, dependence on Israel, poverty linked to occupation, and inadequate housing as important determinants of life quality. Another finding that emphasises the inter-connectedness of the political and social contexts and their link to life quality is the lack of educational choices, social domain was rated as extremely important and relevant to Palestinian life quality (Giacaman et al., 2004a).

In the second study, (Giacaman et al., 2004b) 3415 students attending 10th and 11th grades in the Ramallah District of West Bank were studied. A very high level of exposure to violent events was reported by the students. Boys reported significantly more exposure to violent events than girls at both the individual level and at the collective level. Girls reported higher levels of subjective health complaints, such as headaches and feeling depressed, and extreme symptoms such as inability to concentrate on daily tasks and studies and having nightmares. Boys on the other hand, tended to report an increase in aggressive behaviour and abusive language. Camp dwellers, irrespective of family living standard, reported the highest levels of exposure to violent events. Likewise, camp dwellers reported the highest levels of subjective complaints, extreme symptoms of distress and behaviour changes.

The study sample of Quota et al. (2004) consisted of 944 in the age group of 10–19 years. In this research, trauma scale, PTSD scale, the Child Posttraumatic Stress Index, the Children's PTSD symptoms, the results indicated that 32.7% of the children started to develop acute PTSD symptoms that need psychological intervention, while 49.2% them suffered from moderate level of PTSD symptoms. The most prevalent types of trauma exposure for children are for those who had witnessed funerals (94.6%), witnessed shooting (83.2%), saw injured or dead who were not relatives (66.9%) and saw family members injured or killed (61.6%).

Zakrisson, Shahan, Mortaja, and Hamel (2004) studied 206 children (ages 6 to 13 years) from West Bank, based on a multistage, randomised selection of 8 Palestinian villages and their households in the southern region of Bethlehem, West Bank. For all families interviewed, the father was employed, none were receiving financial assistance, and all but one owned their own house. The results of the Rutter A2 scale revealed a rate of psychological morbidity ('caseness') of 42.3% among Palestinian children. The rate for boys was 46.3% and for girls, 37.8%.

The findings of the above studies show high rates of prevalence, specific vulnerable groups, dose response relationship, the role of protective factors and the need for public health approaches to address the mental health needs.

### *Sri Lanka*

The conflict between the majority Sinhala and minority Tamil population in Sri Lanka has been ongoing for nearly 30 years. One of the first studies that looked into the psychological effects of the conflict on the civilian population was an epidemiological survey (Somasundaram & Jamunanatha, 2002), which reported that only 6% of the study population had not experienced any war stresses. Psychosocial sequelae were seen in 64% of the population, including somatisation (41%), PTSD (27%), anxiety disorder (26%), major depression (25%), alcohol and drug misuse (15%), and functional disability (18%).

### *Somalia*

A study carried out with ex-combatants in Somalia found high psychiatric morbidity and use of khat (GTZ, 2005). A UNICEF study found evidence of psychological effects of the prolonged conflict situation in a high proportion of a sample of 10,000 children (UNICEF, 2004) who formed the sample of the study.

### *Sudan*

Sudan has experienced more than 2 decades of conflict in the southern Sudan and for the last 3 years in the Darfur area. The country has been in a conflict situation for a long period.

Shaaban and Baasher (2004) studied 1107 12–19-year-old girls by a two stage epidemiologic survey for major depressive disorder in Khartoum. They found a 4.2% prevalence of major depressive disorder for the population. Eleven per cent of the girls reported severe depression. The depressive scores increased with age. In addition, during the psychiatric interview, 8.6% had 'partial syndrome'. None of the girls had sought treatment from health facilities.

The study of mental health of women among internally displaced people of Darfur was completed by the International Medical Corps study (2005). A random sample of 1293 female household heads were surveyed using PHQ-9 and questions regarding suicidal ideation and suicide attempts among respondents and household members was collected. The prevalence of major depressive disorders was reported 31% and 63% reported symptoms of depression. Over the prior year, 5% of the respondents reported suicidal ideation and 2% reported personal suicidal attempts. Two per cent of households had a member that committed suicide during the prior year. There were 21 suicides in 8643 population, making the suicide rate 100 times that expected in the general population.

The UNICEF, UNFPA study of the effects of conflict on health and well-being of women and girls in Darfur (2005) reported a high rate of psychosocial disturbances and increased rates of suicide and suicidal ideation. This study recommended that there should be an 'increased availability of free and culturally appropriate counseling and emotional support services for survivors of sexual violence and their families'.

### *Terrorist attacks*

Terrorist attacks in a number of countries (USA, UK, Spain, India, Indonesia) during the last few years, has provided information about the impact on the mental health of the general population (Whalley & Brewin, 2007). Immediately following the incident, more than half of the population experienced 'substantial stress' but these symptoms decline over 6–8 weeks. Symptom reporting is associated with actual losses of people, possessions and employment. Population groups reporting more symptoms include members of minority groups, people with previous experience of adversity and people who have developed psychiatric disorders in

response to past stress. About 30–40% of people closest to the incident are likely to develop a clinically diagnosable disorder within 2 years. For emergency workers, time working on the site is associated with increased PTSD prevalence. There is relationship between the parental stress and the occurrence of symptoms in children.

#### *Risk factors*

From the large amount of studies reviewed, some broad risk factors and associations can be drawn. Women have an increased vulnerability to the psychological consequences of war. There is evidence of a high correlation between mothers' and children's distress in a war situation. It is now known that maternal depression in the prenatal and postnatal period predicts poorer growth in a community-based sample of infants. Social support and traditional birth attendants have a major role in promoting maternal psychosocial well being in war-affected regions. The association between gender-based violence and common mental disorders is well known. Despite their vulnerability, women's resilience under stress and its role in sustaining their families has been recognised.

There is consistent evidence of higher rates of trauma-related psychological problems in children. The most impressive reports are those from Palestine. Of the different age groups, the most vulnerable are the adolescents.

The direct correlation between the degree of trauma and the amount of the psychological problems is consistent across a number of studies. The greater the exposure to trauma – both physical and psychological – the more pronounced are the symptoms.

Subsequent life events and their association with the occurrence of psychiatric problems have important implications for fast and complete rehabilitation as a way of minimising the ill effects of the conflict situations.

Studies are consistent in showing the value of both physical support and psychological support in minimising the effects of war-related traumas, as well as the role of religion and cultural practices as ways of coping with the conflict situations.

#### **Research issues**

A number of issues have emerged from the extensive literature on the prevalence and pattern of mental health effects of war and conflict situations. Are the psychological effects and their manifestation universal? What should be the definition of a case requiring intervention? How should psychological effects be measured? What is the long-term course

of stress-related symptoms and syndromes? (Kroll, 2003). Litz and Gibson (2006) have identified the following as research priorities for early intervention – well designed and well controlled trials of a variety of secondary prevention strategies; naturalistic longitudinal studies of the trajectory of posttraumatic adaptation, especially the course of adjustment to mass violence and traumatic loss; screening models and screening methods; optimal timing of various interventions, critical components and necessary change agents of early interventions; unique burden of traumatic loss and conceptualisations of posttraumatic adaptation.

#### **International developments for interventions**

Recently a number of reviews of the psychological interventions to address the needs of populations living in mass violence conditions (Butler et al., 2003; Critical Half, 2006; Diaz et al., 2006; NIMH, 2002; Ghosh et al., 2004; Loughry et al., 2003; Ritchie et al., 2006; WHO, 2003; Van Ommeran et al., 2005) have been undertaken. The approaches that have been used to address the mental health needs have varied from individual clinical care using both the non-pharmacological and pharmacological interventions, measures to enhance the self esteem and coping capacity of the general population, measures to improve the life skills of the children through school-based interventions, creation of community support systems, income-generating programmes for women, integration of mental health care with general health services and the rebuilding of the mental health infrastructure of specialist human resources for mental health care. Critical examination is beyond the scope of this review and considered in detail elsewhere (Srinivasa Murthy, 2007). The most striking aspect of the interventions is the limited evaluation of the different interventions.

However, a very important development is the initiative to develop guidelines on mental health and psychosocial support in emergency settings by the Inter-Agency Standing Committee (IASC, 2007).

The main task of the IASC Task Force on Mental Health and Psychosocial Support in Emergency Settings was to develop inter-agency guidance for field-testing along the lines of the IASC Guidelines for HIV/AIDS Interventions in Emergency Settings. The matrix summarises key actions for three areas: emergency preparedness, minimum response to be conducted even in the midst of emergency and comprehensive response. Action sheets describe how each intervention in the minimum response column should be operationally implemented, and focus on the practical activities to be conducted even in the midst of emergency. Each action sheet is short (about

750 words), describing key actions and listing key resources. The publication of the guidelines and the fact sheets can be expected to bring about greater recognition of the mental health needs of populations living in mass violence situations, better coordination of the efforts of different agencies, increased access to services and new knowledge to guide future interventions. The titles of the fact sheets are given as Appendix 1. It is expected that the availability of this commonly accepted intervention package could go a long way to both bring these services in the basket of services provided to populations in conflict situations, as well as limit the contradictory approaches at the field level.

## Conclusions

The occurrence of a wide variety of psychological symptoms and syndromes in the populations experiencing mass violence is widely documented. However, research also provides evidence about the resilience of more than half of the population in the face of the worst trauma in mass violence situations. There is no doubt that the populations in war and conflict situations should receive mental health care as part of the total relief, rehabilitation and reconstruction processes. As happened in the first half of the twentieth century, when war gave a big push to the developing concepts of mental health, the study of the psychological consequences of mass violence of the current century could add new understandings and solutions to mental health problems of general populations.

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## Appendix

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 includes the list of recommended steps, specifically for mental health/psychosocial care, described in the action sheets:

- Establish coordination of inter sectoral mental health and psychosocial support.
- Conduct coordinated assessments.
- Initiate participatory systems and processes for monitoring and evaluation.
- Identify, monitor, prevent, and respond to protection threats and failures through social protection.
- Apply a human rights framework through mental health and psychosocial assistance.
- Identify and recruit suitable staff and engage volunteers who have a deep understanding of local culture.
- Enforce staff codes of conduct and ethical guidelines.

- Organise orientation and training of aid workers in mental health and psychosocial support.
- Prevent and manage mental health and psychosocial problems in staff and volunteers.
- Facilitate conditions for community mobilisation, ownership and control of emergency response in all sectors.
- Facilitate community social support and self-help.
- Facilitate conditions for appropriate cultural and religious healing practices.
- Facilitate support for young children (0–8 years) and their care-givers.
- Include specific social considerations (safe and culturally appropriate access for all) in the provision of water and sanitation.
- Include specific social and psychological considerations (safe aid for all taking into consideration cultural practices and household roles) in the provision of food and nutritional support.
- Include specific social considerations (safe, dignified, culturally and socially appropriate assistance) in site planning and shelter provision in a coordinated manner.
- Include specific social and psychological considerations in the provision of general health care.
- Provide access to care for people with severe mental health problems.
- Protect and care for people with mental disorders living in custodial settings.
- Learn about and, where appropriate, collaborate with local, indigenous, and traditional healing systems.
- Minimise harmful use of alcohol and other substances.
- Provide access to formal and non-formal education.
- Organise psychosocial support in educational settings.
- Provide information to the affected population on the emergency, relief efforts and their legal rights.
- Provide access to information about constructive coping methods.

The publication of the guidelines and the fact sheets can be expected to bring about greater recognition of the need, better coordination of the efforts of different agencies, increased access to services and new knowledge to guide future interventions.