

## Children's Posttraumatic Emotional Distress and Coping After a Natural Disaster: The 2004 Tsunami

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### Introduction

Natural disasters take a heavy toll on the mental health of those affected and significantly increase the risk of distress, psychological problems and mental disorders. Children are especially vulnerable to the effects of natural disasters as they are still developing an understanding of their social world and necessary coping mechanisms to withstand stress resulting from disasters. The effects of the 2004 tsunami on mental health of children are likely to be quite traumatic as the victims of the tsunami have experienced multiple, intense stressors that have been found to predict adverse outcomes, such as bereavement, threat to life, and displacement. These stressors can generally induce traumatic effects on children including mild to severe post-traumatic stress reactions such as depression, anxiety and post-traumatic stress disorder (PTSD) in response to such disasters. 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, and survivor guilt also remains problematic (Carballo *et al.*, 2006).

However, children's use of coping strategies may affect the severity and duration of their posttraumatic distress as well as the extent of impairment to their social and academic functioning. Indeed, in the absence of effective coping, the meaning and impact of traumatic events may continue to play a role in the personality and psychological development of the child. The purpose of the present study was to examine the magnitude of long-term persistent posttraumatic emotional distress and coping efforts mobilized to deal with it among children affected by the tsunami.

### Methodology

Participants were 126 (63 girls and 63 boys) 9 to 12 year old school children selected following the multi-stage sampling procedure from four schools affected by the tsunami in the Galle district. The participants were

Sinhalese and from families at the lower socio-economic level.

The Emotional Distress Questionnaire (EDQ), a 24-item self-report measure was designed for this study to assess the nature and magnitude of emotional distress. The Child Coping Questionnaire (CCQ), a 25-item self-report measure was developed for this study to assess the frequency of the use of different coping strategies and the relative effectiveness of each strategy in dealing with disaster related emotional distress. All the measures used in the study were validated to meet the local cultural requirements.

Approximately 15 months after the tsunami of December, 2004, after obtaining informed parental consent and child consent as well, the researcher administered a series of self-report questionnaires to 126 child participants during school hours. All self-report measures were read to the students. The battery of measures was completed in approximately 40-45 minutes.

### Results

The negative impact of the tsunami on the majority of children was moderate. Possible score range being 17 to 85, children's mean scores reflected moderate levels of emotional distress ( $M=47.37$ ,  $SD=11.63$ ). 7% of the sample reported experiencing lower levels of emotional distress, 50% reported experiencing moderate level of emotional distress while 43% of the sample reported experiencing higher level of emotional distress. However, no children reported experiencing a very high level of emotional distress. Female gender was significantly correlated with emotional distress while no significant correlation coefficients were found between age and emotional distress.

Participating children reported using religious strategy (83%) most frequently, followed by distraction (82%), and social support (81%) coping strategies. The least frequently used coping strategies were social withdrawal (20%)

and blaming others (21%) followed by ventilation of emotions (31%). Increases in emotional distress were associated with significant increases in children's coping scores ( $r(126) = .42, p < .001$ ). The level of emotional distress varied significantly among children depending upon the type of coping strategy they used ( $t(124) = 20.85, p < .05$ ). Blaming others, acceptance, mental disengagement and humour were the coping strategies that were least associated with emotional distress. Regression analyses found that use of individual coping strategies explained 34% of the variance in emotional distress. Distraction (*I try to forget it*) made a significant contribution of  $\beta = .21(p < .05)$ , while cognitive restructuring ( $\beta = .23, p < .05$ ) and avoidance ( $\beta = .18, p < .05$ ) also made a significant contribution indicating that increases in the use of these three coping strategies were associated with increases in the level of emotional distress. There was no significant relationship between age and gender with coping efforts.

### Discussion

Being affected by the loss of their familiar environment, disruption of the sense of protection and well-being, lack of care received from the care givers might have led to elevated levels of emotional distress among most of the affected children. The explanation behind the strong relationship between coping efforts and emotional distress seems to lie in the fact that the children who are highly distressed have put more effort in coping than the children experiencing a lesser amount of distress. These

results also suggest that high levels of distress following a disaster which causes multiple disruptions in the child's life, may initially elicit a variety of coping strategies, both positive and negative. These findings also indicate that the children are not passive victims of adversity, but active survivors.

### Conclusions

There is a small minority of children who continue to suffer from long lasting traumatic stress reactions; hence are at risk of developing psychological problems. As all children are not equally effective in choosing the coping strategies which would effectively deal with distress, some would need guidance in selecting the appropriate strategies. Findings of the current study would provide important information to the service providers, hence could be used for the benefit of the tsunami affected children.

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### References

- Carballo, M., Heal, B. and Horbaty, G. (2006) Impact of the Tsunami on Psychosocial Health and Well-being, *International Review of Psychiatry*, 18 (3), 217-223.