

In this issue

This issue contains one review of studies of post-traumatic stress disorder (PTSD) following disaster, and other sets of papers examining various aspects of trauma and mental health. Four individual papers examine a variety of topics.

Post-traumatic stress disorder and disaster

In the first paper, Neria *et al.* (pp. 467–480) report findings from a systematic review of literature published since 1980 on PTSD following disasters. The authors identified 284 relevant papers, covering human made, technological and natural disasters. The existing evidence suggests the prevalence of PTSD following disaster is substantial, often in excess of 20%. A range of factors have been found to be associated with an increased risk of PTSD following disaster, including sociodemographic and background factors, severity of exposure to disaster, and availability of social support. The authors note, however, that few studies have examined the longitudinal course of PTSD following disaster.

Disaster and mental health

Three papers examine further aspects of disaster and mental health. In the first, Loganovsky *et al.* (pp. 481–488) investigated the long-term psychological effects of the Chernobyl disaster in 295 male clean-up workers assessed 18 years after the incident and in 397 geographically matched controls. On a range of indicators, the mental health of clean-up workers was worse than that of controls, including depression, suicidal ideation and, in the year prior to interview, PTSD and headaches. Clean-up workers also lost more work days than controls.

Taormina *et al.* (pp. 489–497) report findings on cognitive function from an 8-year follow-up of infants evacuated following the Chernobyl disaster and class-mate controls who had initially been assessed at age 11. The authors found that, on a number of indicators including neuropsychological tests, university attendance and self-reported memory problems, there were no differences between evacuees and class-mates. However, the mothers of evacuees were around three times more likely than mothers of class-mates to report their children had memory problems. The authors conclude that the Chernobyl incident did not affect cognitive function in those

exposed, but mothers nonetheless continue to worry about the after-effects on their children.

Van Den Berg *et al.* (pp. 499–510) investigated risk factors for a number of physical symptoms, including fatigue, headache and bone and muscle pain, in a sample of 1567 survivors of the Enschede (Netherlands) fireworks factory explosion assessed 18 months and 4 years later, and 821 controls. They identified a number of predisposing factors for such symptoms: female gender, immigrant status, and pre-disaster psychological problems. Factors associated with persistence of symptoms included: intrusions and avoidance, depression, anxiety and sleep problems.

Post-traumatic stress disorder

Six papers examine further aspects of PTSD. In the first, Iversen *et al.* (pp. 511–522) investigated risk factors for PTSD in 4762 UK Armed Forces personnel who had been deployed in Iraq since 2003. A host of risk factors were associated with PTSD, including demographic characteristics (e.g. unmarried), a history of childhood adversity, potential exposure to traumatic events while on duty, poor social support within the unit, and non-receipt of a home-coming brief. The authors conclude that potentially modifiable occupational factors may influence risk of PTSD in UK Armed Forces personnel.

Dileo *et al.* (pp. 523–531) examined olfactory identification (OI) ability in 31 male war veterans with PTSD and 31 matched male controls, and its relationship with aggression and impulsive behaviour. The authors found that veterans with PTSD had greater OI deficits compared with controls, independent of cognitive performance. These deficits were significantly associated with aggression and impulsive behaviour. The authors conclude that these findings support emerging evidence of orbitofrontal dysfunction in the pathophysiology underlying PTSD.

Norman *et al.* (pp. 533–542) investigated pain in the aftermath of severe physical trauma as a risk factor for PTSD in a sample of 115 patients followed at 4 and 8 months. They found a significant relationship with subsequent PTSD, after adjusting for a number of potential confounders. They further found that a single item regarding the amount of pain at the time of hospital admission correctly classified 65% of subjects. The authors conclude that assessment of pain following physical trauma could be used to identify those at high risk of PTSD.

Lindauer *et al.* (pp. 543–554) examined the effects of psychotherapy for PTSD on brain regions that previous studies have shown to be functionally altered in PTSD, specifically in temporal and prefrontal cortical regions. In a sample of 20 PTSD patients, who were compared at baseline with 15 traumatized controls, and then randomized to 16 weeks psychotherapy or a waiting-list, the authors found that: (1) compared with controls, PTSD patients showed greater activation in the right insula and right superior/middle frontal gyrus; (2) compared with waiting-list controls, treated PTSD patients showed lower activation in the right middle frontal gyrus following the intervention; and (3) treatment effects on PTSD were associated with activation in the left superior temporal gyrus, and superior/middle frontal gyrus.

Bryant *et al.* (pp. 555–561) investigated the capacity for fear responses during fear processing to predict treatment response in a sample of 14 subjects with PTSD who were presented with fearful and neutral facial expressions while undergoing fMRI prior to receiving cognitive behavioural therapy (CBT). Those who did not respond to CBT ($n=7$) had greater bilateral amygdala and ventral cingulate activation in response to masked fearful faces. The authors conclude that excessive fear responses may be a key factor limiting effectiveness of CBT for PTSD.

Chung & Breslau (pp. 563–573) examined measurement invariance of DSM-IV PTSD criterion symptoms by gender and trauma type using latent-class analysis on data from a sample of 1360 individuals, with a mean age of 21 years. There was no evidence of differential symptom reporting, by gender, within the same distribution class. The authors did, however, find evidence of variability by trauma type, with victims of assaultive violence reporting more severe distress than victims of non-assaultive violence. The authors conclude that the finding of measurement bias by trauma type raises questions about the applicability of a single PTSD definition across trauma types.

Other topics

The final four papers examine other topics, including further aspects of trauma. Watson *et al.* (pp. 575–579) examined the hierarchical and cumulative nature of

items on the GHQ-30 using the Mokken scaling procedure on data from 6317 subjects drawn from the UK Health and Lifestyle Survey. Analyses produced a final reliable and very strong scale of nine items from the GHQ-30. The majority of these items also appear in the GHQ-12. The authors conclude that select items from the GHQ-30 form a short hierarchical and cumulative scale.

Hazel *et al.* (pp. 581–589) tested the possible mediating role of recent stress in the association between early adversity and depression in adolescence in a community-based sample of 705 young people assessed at ages 5, 15 and 20 years. The authors found that the total burden of stress experienced by subjects at age 15 mediated the relationship between early adversity and depression between the ages of 15 and 20, but not the relationship between early adversity and onset of depression before age 15. The authors conclude that continued exposure to stress around the time of onset largely accounts for the association between early adversity and depression in late adolescence.

Schomerus *et al.* (pp. 591–597) investigated experiences of crime and subjective feelings of safety using data from the European Schizophrenia Cohort, a 2-year follow-up study of 1208 patients in the UK, France and Germany. Over the study period, 10% had been victims of violent crime and 19% victims of non-violent crime. No differences were observed in victimhood between rural and urban areas. However, those living in cities were much more likely to feel subjectively unsafe. The authors conclude that stress and anxiety related to perceived threat in cities may contribute to poorer outcomes.

Warren *et al.* (pp. 599–605) examined links between threats to kill, mental disorder and subsequent offending and suicide in a study of 613 individuals convicted of threats to kill. They found that, within 10 years of being convicted, 44% were convicted of further violent offending, 3% being homicide. The highest risks of subsequent violence were observed in substance misusers, those with a mental disorder, the young, and those without a prior conviction.

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