

fear of the dark, sleep disturbance, reluctance to cross roads or travel by car, and a preoccupation with road safety.

Those involved in the psychological treatment of adult survivors of road traffic accidents should be aware of the possible significance of behavioural disturbance in children in the survivors' families. As children's symptoms may be closely linked to parental psychopathology (for example, post-traumatic stress disorder in a parent impedes the long term recovery of affected children<sup>2</sup>), we suggest that it may sometimes be appropriate to refer affected parents and children to children's mental health services, which emphasises a family perspective in assessment and treatment.

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## Often disabling and unrecognised

EDITOR.—I share Richard Mayou and colleagues' experience that the psychological sequelae of road traffic accidents are often disabling and unrecognised, even in medicolegal work. I retrospectively reviewed the last 21 patients I saw after road traffic accidents (19 were referred locally for management and physiotherapy and two for a further opinion). The table gives details. The patients all suffered from spinal or shoulder pain; 18 had been driving their cars, two had been passengers in a car, and one had been hurt on a bus. Although standardised tests were not used, the psychological morbidity was enormous. Irritability, tearfulness, sleep disturbance, and travel anxiety each occurred in over half the sample.

Ten patients were thought to be depressed (six women, four men; mean age 37). Two patients who were mourning the death of relatives (the brother of one had been killed in a road traffic accident) were referred for psychiatric help. Five patients gained weight and became upset to

### Details of 21 patients referred after road traffic accidents

|                          | Women      | Men        | No data available |
|--------------------------|------------|------------|-------------------|
| Sex                      | 14         | 7          |                   |
| Mean age (range) (years) | 35 (20-56) | 38 (22-56) |                   |
| Site of pain:            |            |            |                   |
| Low back                 | 3          |            |                   |
| Neck                     | 7          | 3          |                   |
| Neck and back            | 3          | 3          |                   |
| Shoulder                 | 1          | 1          |                   |
| Intrusive memories after |            |            |                   |
| six months*†             | 3          | 3          | 4                 |
| Depression               | 6          | 4          | 2                 |
| Tearfulness              | 9          | 4          | 2                 |
| Irritability             | 9          | 7          | 3                 |
| Sleep disturbance        | 10         | 2          | 2                 |
| Altered body image       | 6          | 2          | 5                 |
| Avoids site of accident* | 2          | 4‡         | 9                 |
| Travel anxiety*          | 8§         | 5‡         | 4                 |

\*Not applicable to one patient, who had been a passenger in a bus and had no memory of the accident.

†Not applicable to one patient, who had no memory of accident.

‡One patient had not driven since accident.

§One patient had been housebound since accident.

variable degrees by their changed body image, one feeling suicidal. One was so distressed (depressed on the Beck depression inventory) that he misused alcohol, assaulted his father in law, was deserted by his wife, and took an overdose. Another relationship did not survive the post-traumatic irritability, and two women postponed committing themselves to their partners. Depression in two other women was complicated by nightmares in which they relived their accidents. The final three patients were unable to cope with their responsibilities and were weepy; one felt suicidal and made her will.

Of the remaining 11 patients, only one had no psychological sequelae and two had only travel anxiety. The others had a combination of symptoms reflecting post-traumatic stress, depressive symptoms, or irritability.

Of the 10 medicolegal reports prepared by other people that were available to me, one noted nervousness when being driven (compatible with travel anxiety); one commented on tension and tearfulness during examination; one thought that symptoms were "simulated" or due to "hysteria"; and one thought that the patient had adopted a "sick role." None made any assessment of mood, depression, or post-traumatic stress.

Mayou and colleagues' work<sup>1</sup> adds to the growing knowledge of the interactions between the physical and psychosocial components of spinal pain<sup>2,3</sup> and supports Cohen and Pfeffer's advice for early psychiatric assessment of patients after trauma.<sup>4</sup> Physicians and surgeons treating patients with musculoskeletal disorders require much better training in assessing and managing psychosocial disability.

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## Loss of memory is protective

EDITOR.—Having read Richard Mayou and colleagues' article on the potential psychiatric problems in victims of road traffic accidents, I wish to add a note of historical interest about some patients who became unconscious after major trauma.<sup>1</sup>

In November 1942 a fire broke out in the Cocoman Grove nightclub in Boston, United States, killing 491 people and injuring many more; it became known as the Cocoman Grove disaster. Reporting on the neuropsychiatric complications in victims of this disaster, Adler noted that, of the 20 patients who did not develop psychiatric complications, 15 had lost consciousness, which in 12 cases lasted over an hour. Of the 25 patients with psychiatric complications, 14 had lost consciousness but only for a short time (less than an hour in 10 cases). Adler reported, "Therefore unconsciousness, and in particular prolonged unconsciousness, prevailed in patients who had stayed free of psychiatric complications, whereas there was no loss of consciousness and it was of very short duration in most of the patients with post traumatic mental complications."<sup>2</sup>

Loss of consciousness and, consequently, the absence of any memory of an incident links in with the finding that people with horrific memories of an incident often develop post-traumatic stress disorder. Therefore, becoming unconscious after major trauma seems to be a good prognostic indicator in terms of post-traumatic stress disorder, and amnesia seems to play an important part in this process.

Virtually nothing is known about the neuro-biochemistry of unconsciousness.<sup>3</sup> Adler's findings on the Cocoman Grove disaster highlight the need for research into unconsciousness as the findings would have implications for the management of post-traumatic stress disorder.

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## Phobias linked to chronic pain

EDITOR.—Accident phobias and post-traumatic stress disorder are complications of road traffic accidents, and I frequently see patients with these conditions at my multidisciplinary pain clinic as well as my anxiety disorders clinic. I agree with most of the conclusions of Richard Mayou and colleagues but offer some elaboration.<sup>1</sup>

Several reports have described accident phobias and post-traumatic stress disorder after road traffic accidents.<sup>2,4</sup> These reports have described chronic cases of psychiatric morbidity, and the prospective study of acute cases by Mayou and colleagues is an important contribution. Phobias and post-traumatic stress disorder seem to be more common in patients with chronic pain than in the patients in Mayou and colleagues' study, who presented as acute emergencies. The prevalence of phobias in patients seen at this clinic after road traffic accidents is 30-40%.<sup>3,4</sup> In a comparative study phobias were two and a half times more common in patients with pain who had a history of a road traffic accident at the onset of pain than in patients with a different onset of pain.<sup>3</sup> Fewer than 40% of people with chronic accident phobia met the full diagnostic criteria for post-traumatic stress disorder.<sup>3,4</sup> Roughly one fifth admitted to a history of anxiety disorder.<sup>2,3</sup> Concurrent chronic pain was common.<sup>2,4</sup> Perhaps past anxiety disorder and comorbid pain predispose towards chronicity of accident phobia.

People with agoraphobia have fears about driving, but these differ from accident phobia. People with agoraphobia fear that sudden incapacitation by a panic attack may result in their losing control of a vehicle they are driving. People with accident phobias fear future accidents. They are overanxious as drivers and, more characteristically, lose the ability to be trusting passengers. Accident phobia is more circumscribed than agoraphobia and reflects the person's experience of an accident.<sup>4</sup> Behavioural management—in particular, exposure therapy—may be efficacious.<sup>3</sup> I believe that exposure therapy must address the particular concerns about safety that people with accident phobia have. I am not aware of any controlled studies of treatment.

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