

Psychosocial consequences of road accidents

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Road traffic accidents constitute about 1/3 of the accidents brought to hospitals and are associated with the most severe injuries. However, the long-term psychosocial consequences have been minimally explored. We present data from a 3-year retrospective follow-up study not previously published in English, concerning the psychosocial outcome of 51 out of 55 injured children, and the consequences of road traffic accidents for 55 relatives of 112 adults suffering from some negative consequences (Malt *et al.*, 1982). We have also performed an analysis of a subsample of 192 road traffic injured subjects included in a previously reported retrospective 3-year follow-up study of a cohort of 551 accidentally injured adults (Malt *et al.*, 1989a).

The method included data from medical records, ratings of severity of the injury, questionnaires including the Late Effect of Accidental Injury Questionnaire (LEAIQ) (Malt *et al.*, 1989b), the General Health Questionnaire 20-item version and personal structured interviews with 112 adults with some negative consequences and 55 of their relatives available at the time of the interview.

Results showed that of the 51 children, 7.8% had behavioural problems, 4.1% had impaired playing ability and 14.3% had reduced physical performance capacity. Sixty-eight of 183 adults had a GHQ-20 case score of 4 or more suggesting psychiatric problems in 31% of the patients (sensitivity 73%, specificity 79%). However, forty-eight adults (26%) reported nervousness as a consequence of the road traffic accident. Of these subjects, the majority (33/48 or 87%) scored as a case on the GHQ-20. Depressive symptoms were more fre-

quently reported than anxiety symptoms. Symptoms suggesting a post-traumatic stress disorder occurred in less than 5% of the subjects. 29.5% reported fear of situations similar to that in which the accident took place.

Nervousness was statistically associated with higher age ($P < 0.01$) and severity of the injury ($P = 0.016$). Fourteen (25.5%) of the 55 relatives of the 112 patients with some negative physical outcomes, reported worse psychological health, five (9.1%) decreased pleasure in leisure and four (7.3%) reduced work capacity as a result of their relatives' injury. The family and social consequences of the accidents can be observed in table I.

Table I. Frequency of negative consequences reported in a 3-year biopsychosocial follow-up study of persons 15-69 years of age injured in traffic accidents.

Outcome	% (n) of patients with negative outcome
Family/spouse relationship worse	7.4 (14/183)
Reduced contact	15.1 (28/185)
Pleasure in leisure decreased	21.6 (40/185)
Decreased work capacity	21.3 (40/187)
Economic situation worse	7.1 (13/182)

All outcomes were statistically associated with pre-accident disability problems and severity of the injury. Worse relationship to family and reduced social contact was associated with higher age ($P < 0.001$). We found no association between type of road accidents and negative psychosocial outcomes.

As far as we know, this is the first study to report the long-term consequences of road traffic injuries for both the patients and their relatives. The 20% activity decrease, the frequent reports of long-term depressive and anxiety symptoms and the psychosocial implications for the relatives of the victims, indicate that the psychiatric and psychosocial consequences of traffic injuries are a major cause of reduced mental health in our society. This finding stresses that not only surgeons, but also psychiatrists should be involved in the after-

care of traffic accident victims and their relatives (Malt, 1993).

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