

The role of general practice in following up patients with trauma

Worldwide, more than 5 million people die from injuries, accounting for 9% of the world's deaths.¹ In the UK, falls and road traffic accidents are the most common causes of injury² and GPs are often required to provide psychological support, manage, and coordinate follow up care. Patients with mild head trauma may only present to primary care³ expecting to receive appropriate management and reassurance that their condition is self-limiting. This edition of the *BJGP* includes two papers highlighting the needs of patients and the challenges facing primary care physicians in following up injuries with both physical and psychological impacts.

The first linked paper describes the work of Theadom and colleagues from New Zealand (NZ) who investigated persistent problems in the year following diagnosis of mild traumatic brain injury (mTBI), resulting from head trauma.⁴ With regards to brain injury, the term 'mild' described patients post head injury who had a Glasgow Coma Scale (GCS) score of 13–15 or post traumatic amnesia within 24 hours of injury,³ however there is growing evidence that despite being labelled 'mild' the immediate effects of mTBI may have longer term consequences. In this study, 341 patients who had sustained an mTBI participated in comprehensive follow up assessments at regular intervals throughout the first year following injury. The assessments focused on post concussion symptoms, cognitive functioning, anxiety, depression, quality of life, and global functioning. Patients who did not attend hospital, and who may have been missed by previous studies, were specifically sought out. The results showed that nearly half (47.5%) of participants experienced four or more mild to severe post-concussion symptoms at 1-year following the initial injury.

The most common symptoms at all follow up times were headaches, fatigue, forgetfulness, poor concentration, and taking longer to think (slower processing of information and recall). At 12 months, common symptoms also included sleep disturbance, irritability and feeling frustrated or impatient. Although these symptoms are often present in the general population, the frequency of memory difficulties, fatigue and irritability symptoms were far higher in the mTBI sample than in an NZ general population survey. A small percentage (10%) of patients also had some impairment

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in cognitive and global functioning higher than would be expected in the general population, but it is not possible to imply causality without details of pre injury ability and functioning, or assign a decrease in cognitive functioning to the injury itself rather than post-traumatic symptoms such as sleep disturbance. Interestingly, levels of depression, anxiety, and quality of life were found to be equivalent to general population mean scores.

The second linked paper is a qualitative study of patients' experiences following discharge from hospital after sustaining an unintentional injury.⁵ This was a nested study as part of multicentre longitudinal quantitative study assessing the impact of injuries on physical, psychological, social, and occupational functioning.² Christie and colleagues interviewed 45 patients at various points in the year post injury, and 40 service providers (SPs). SPs included nurses, physiotherapists, doctors, and a number of other allied health professionals. Only three GPs were included in the sample. The results highlighted the complex needs of patients discharged post injury and areas where healthcare professionals could improve the experience for patients, such as providing sufficient information about the injury, its recovery, pain control, or help with returning to work. Other issues identified were a difficulty in accessing services such as physiotherapy in a time-sensitive manner and incongruence between what patients expect and what GPs deem necessary in terms of psychological support and access to counselling. Poor communication between secondary and primary care such as delayed or inadequate discharge letters,

and a perceived lack of awareness that GPs have for available resources were also highlighted by SPs.

SHORT AND LONG TERM NEEDS OF PATIENTS POST INJURY

So what does this mean for general practice? Both papers identify the need for primary care professionals to be aware of the short term needs and longer term follow up for patients who have sustained an injury. In the short term, patients need psychological, physical and practical support. They need help understanding what has happened and their projected recovery, adequate symptom control, and a joined up health care system supporting timely access to rehabilitation. Although budget restraints or provision of services may affect local access to therapies, simply meeting regularly with patients soon after the injury, providing detailed verbal and written information and reassurance,⁶ and suggesting practical solutions and strategies on how to cope with symptoms or a gradual return to work can help reduce psychological distress and promote recovery.⁷ Ponsford *et al* demonstrated that giving patients who had sustained a minor head injury an information booklet 1 week post injury resulted in significantly lower rates of stress at 3 months than those who did not receive the booklet.⁸ GPs should also be aware of predictors of poorer outcome following head injury such as being female or of non-Caucasian identity (as in the NZ study), or factors associated with symptom prolongation such as a lack of social/family support, a concomitant orthopaedic or soft tissue injury, ongoing litigation or evolving depression, and anxiety at baseline.⁷

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PHYSICAL EFFECTS OF INJURY

The risk of pituitary dysfunction following TBI (post traumatic hypopituitarism [PTHP]) is also well described and may affect as many as 30–80% of patients following TBI.⁹ Although current NICE guidelines in this area are lacking, there are recommendations that GPs should initiate baseline hormone evaluation at 3–6 months following any severity of TBI, especially in patients with symptoms such as depression, cognitive impairment, and emotional lability, and involve an endocrinologist if there is any suggestion of hypopituitarism.⁹ GPs should also be alert to the possibility of epilepsy following mTBI,¹⁰ as well as dealing with chronic pain and potential disability.

PSYCHOLOGICAL EFFECTS OF INJURY

With regards to psychological issues, in the short (first 3–6 months) and longer term patients may need support to deal with both the trauma of the injury itself as well as persisting symptoms as a result of the injury. Injury, as well as other psychological risk factors such as peritraumatic emotional responses, that is, those individuals experiencing intensely negative emotional responses during or immediately after the index traumatic event, reported appreciably higher levels of post traumatic stress disorder (PTSD) symptoms. A meta-analysis of 2647 studies identified that these psychological processes, typically presenting as fear, helplessness, guilt, and shame, rather than prior characteristics, are the strongest predictors of PTSD.¹¹ Similar studies have also identified a lack of social support as a major risk factor.¹² Therefore, asking patients about the ‘meaning’ of their experience and assessing their levels and quality of social support can yield useful predictors of further psychological distress. Early referral can lead to more positive psychological outcomes as once cognitive and behavioural avoidance become more marked, clinical presentations become more chronic and entrenched thus becoming more resistant to psychological approaches as recommended by NICE. This not only has implications for the need for earlier identification and referral, but for the accessibility, acceptance, adherence to treatment, and viability of recommended clinical interventions under the NICE guidelines which support the use of trauma focussed cognitive behavioural therapy (TFCBT) and antidepressants as an adjunct for PTSD.¹²

Post-traumatic stress disorder represents an excessive health and economic burden on patients, families,

healthcare workers, hospitals, and society as a whole. Its effects extend far beyond the healthcare sector, and affect the quality of life as well as the ability to function socially and occupationally. The economic and social impact of PTSD is felt not only by those who experience the disorder, but also by families, co-workers, employers, and the wider society.¹³ The NICE cost impact report for CG26 on PTSD¹⁴ suggests a population prevalence of PTSD in England of around 1.5%. However, commissioners need also be aware that the prevalence is likely to be higher for the reasons given above.

Finally, GPs can also find support from charities such as Headway and The United Kingdom Acquired Brain Injury Forum (UKABIF), which have online resources for professionals including guidelines for referrals to neuropsychological services for patients who have sustained an mTBI. The After Trauma website (www.aftertrauma.org), lists charities and useful organisations which offer invaluable emotional and practical support for patients and families whose lives have been affected by any type of injury. In summary, both papers in this issue highlight the short and long-term psychological and physical effects of injury. GPs have a vital role to play at all stages,

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including initiating referral to secondary care specialities as well as a maintaining regular contact with injured patients and their families.¹⁴

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Provenance

Commissioned; not externally peer reviewed.

DOI: 10.3399/bjgp16X683065