

# Post-traumatic stress disorder in a group of Australian general practices

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**BACKGROUND** Some authorities regard post-traumatic stress disorder (PTSD) as a well characterised condition that is under diagnosed in general practice. We aimed to explore its prevalence in Australian general practice.

**METHOD** 'Medic-GP' contains the records of 58 941 patients over a period of six years. We searched the database for PTSD and synonyms in individual records, looking for diagnostic criteria and comorbidities.

**RESULTS** Post-traumatic stress disorder was diagnosed in 337 patients, an annual incidence of 88/100 000 patients over a 6.5 year period. Specialists diagnosed 312 (93%) after referral by general practitioners. The GPs diagnosed 25 (7%) themselves, of whom only five patients (20%) had all seven diagnostic criteria recorded, and only 16% were free of comorbidities.

**DISCUSSION** General practitioners diagnosed PTSD infrequently, and at levels lower than that seen in the community. The usual psychiatric criteria were seldom recorded. Comorbid conditions were common.

Sufferers of post-traumatic stress disorder (PTSD) will endure an average of 20 years of active symptoms, with almost one day per week of work impairment, a \$US3 billion annual productivity loss for the United States alone.<sup>1</sup> The diagnostic criteria are now well established, and are detailed in the Diagnostic and Statistical Manual IV<sup>2</sup> (Table 1).

Most studies give a lifetime prevalence of 5-10%,<sup>3,4</sup> with women being affected twice as often as men.<sup>5,6</sup> Studies of the prevalence in general practice suggest rates of 9.6-10.5% for women and 7.5-12.3% for men.<sup>7,8</sup> It is more prevalent in populations exposed to traumatic events, eg. war, military personnel, police, firefighters, accidents and interpersonal violence<sup>4,8,9</sup> and the higher figures of

prevalence do arise from a study in Israel.

The diagnosis of PTSD has a long history. During World War I it was known as 'shell shock'. The American Psychiatric Association revised its nosology in 1952 after World War II.<sup>10</sup> Post-traumatic stress disorder was not included in its Diagnostic and Statistical Manual (DSM-III) until 1980, and in 1994 (DSM-IV).<sup>10</sup>

Post-traumatic stress disorder is associated with depression, anxiety, substance abuse and a 19% increased risk of suicide.<sup>3</sup> It is associated with higher rates of organic disorders such as cardiovascular disease (including hypertension), respiratory diseases, peptic ulcer and increased rates of infectious disease.<sup>11-13</sup>

However, diagnosis is difficult because of overlapping symptoms with other

comorbidities (especially depression, agoraphobia and generalised anxiety), and lack of familiarity with PTSD diagnostic criteria.<sup>14,15</sup> Even in academic and community mental health settings recognition of PTSD may be low, with diagnosis occurring in as few as 4% of patients with the disorder.<sup>16,17</sup> If PTSD remains undiagnosed successful treatment of the comorbidities may not be achieved.<sup>18</sup>

## Method

Data for the study were drawn from the Medic-GP database,<sup>19</sup> which consists of medical records from 58 941 patients who have attended 12 general practices in four Australian states. All practices but one are urban, with practices in Perth, Canberra, Melbourne, Adelaide and rural Victoria. All practices use computerised

**Table 1. Abbreviated (DSM-IV) diagnostic criteria for PTSD<sup>2</sup>**

**Criterion**

- A** The person experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others, and the person's response involved intense fear, helplessness, or horror
- B** The traumatic event is persistently re-experienced
- C** Persistent avoidance of stimuli associated with the trauma and numbing of general responsiveness (not present before the trauma)
- D** Persistent symptoms of increased arousal (not present before the trauma)
- E** Duration of the disturbance (symptoms B, C, and D) is more than one month
- F** The disturbance causes clinically significant distress or impairment in social, occupational or other important areas of functioning

records and advise patients of the database and the use of their records. All data were supplied by the practices in de-identified form. Data were collected between 1994-2001. Patients matched national attendance figures for Australian general practice both in terms of age and gender.<sup>19</sup>

We derived the following search terms: post(-)traumatic/stress/disorder, nervous shock, war neurosis/es, war hysteria, traumatic neurosis/es, and gross stress reaction - using synonyms for PTSD derived from the literature.

We searched Medic-GP for records that contained these terms. The records were then examined in detail to determine whether they referred to the diagnosis of PTSD.

Patients without a diagnosis of PTSD were excluded. Those diagnosed with PTSD by their general practitioner were included. Patients with pre-existing diagnoses of PTSD and all patients diagnosed by psychiatrists or other specialists were used for prevalence estimates only.

We examined identified records in detail, commencing at the time of diagnosis. Criteria used by the GP to diagnose PTSD were identified and recorded, including DSM-IV diagnostic criteria and comorbidities. We determined the number of patients that met the minimum

criteria for diagnosis of PTSD and the proportion and type of comorbidities.

The study was approved by the Human Research Ethics Committee of the University of Adelaide.

**Results**

We found 819 consultations of 474 patients out of 58 941 that referred to PTSD or a synonym, and confirmed 337 patients with newly diagnosed PTSD, an annual overall incidence of 88 new cases per 100 000 patients.

Specialists made the diagnosis after GP referral in 312 (93%) patients. General practitioners diagnosed only 25 patients (13 male, 12 female, aged between 17-56 years of age, mean 36.5 years). Only five of these patients met minimum diagnostic criteria for PTSD.

Among the 25 patients diagnosed by the GP, major depressive disorder was the most frequent comorbid condition being seen in 12 patients (48%), while generalised anxiety disorder was seen in six patients (24%) and substance abuse in five (20%). Medical conditions were recorded for 11 patients (44%), and only four patients (16%) did not have a diagnosed comorbid condition. Nine patients (36%) had three or more comorbid conditions.

**Discussion**

Post-traumatic stress disorder has only recently been accepted as a diagnosis and this study suggests GPs diagnose it rarely. As mentioned previously this problem is not unique to general practice. Most diagnoses were made by referral to specialist medical practitioners. The difficulty in making a diagnosis may reflect the high levels of comorbid conditions such as depression or anxiety. The diagnostic overlap and lack of familiarity with the complex PTSD diagnostic criteria<sup>14</sup> make the whole diagnostic process difficult.

It remains to be demonstrated that diagnosis of PTSD is associated with improved outcomes, whether in terms of the primary diagnosis or the comorbid conditions.

The major limitation of the study was the small sample size and our inability to estimate undiagnosed cases of PTSD. We could only count diagnostic criteria recorded in the medical records, which may not include all those used. Failure to record the criteria may reflect lack of knowledge of the criteria, the complexity of the criteria or a reflection of the need to keep medical records succinct.

Perhaps GPs remain to be convinced that increased recognition, diagnosis and treatment improves outcomes for patients with PTSD.

**Implications of this study for general practice**

- PTSD is a common problem that appears to be under diagnosed in general practice.
- PTSD frequently has significant comorbid conditions that may interfere in the diagnostic process.
- It is unclear if diagnosis improves outcomes.

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