

## BRIEF REPORT

# Post-traumatic stress disorder in UK police officers

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## SUMMARY

Prevalence rates for post-traumatic stress disorder (PTSD) in police officers may be six or more times the prevalence rates for the community. Once established, is PTSD in police officers more severe than PTSD in civilians? This small study looks at the symptom frequencies in established cases of PTSD in 31 police officers

and 72 civilians and compares the two. No significant differences were found, although there was a tendency for higher use of alcohol and to try not to think about the trauma. Police officers had more experiences of reliving the trauma or acting as if the trauma were recurring but, again, not to a significant degree.

## Introduction

Studies of police officers with post-traumatic stress disorder (PTSD) are relatively rare. Most studies and reviews focus on military veterans, but there is increasing interest in other groups who are susceptible – health workers, police, fire-fighters and civilian victims of violent crime and motor vehicle accidents. Robinson *et al.* found a prevalence rate of 13% for PTSD symptoms amongst suburban police officers, suggesting an important level of morbidity which has significant implications for morale, absenteeism, occupational health, early retirement and effects of family functioning<sup>1</sup>. Rates in urban police officers and officers in armed situations may be higher. Rates of PTSD symptoms in professional fire-fighters may be as high as 18%<sup>2</sup>. Rates went up according to longer job experience and the number of distressing missions during the previous month. The fire-fighters with PTSD were more likely to have depressive mood, psychosomatic complaints, social dysfunction, and substance abuse.

Prevalence rates for PTSD in the community are probably about 2–3%<sup>3,4</sup>. Rates of PTSD in police forces are therefore likely to be four to six times higher than in the general public.

## Methods

A total of 31 consecutive police force attendees at a clinic for PTSD were examined using a checklist of DSM-IV PTSD characteristics. The presence or absence of all symptoms was evaluated in a research interview. Some additional symptoms were also routinely asked about, such as low libido and mood lability.

A total of 72 consecutive civilian attendees at the same PTSD clinic were also interviewed to provide a control group to assess whether there were differences in the frequency of various symptoms between the two groups.

# Results

## Causes of PTSD

Causes of PTSD in police officers and civilians are broadly similar, such as motor vehicle accidents. Several cases of PTSD have occurred after high-speed car chases. However, police were very significantly more likely to acquire PTSD as a result of direct assault or from being threatened with death by guns, knives or swords ( $p = 0.002$ ). Indeed, most police cases of PTSD (21/31 police cases compared to 15/72 civilian cases) were as a result of serious assault or threatened murder.

The following cases are provided for illustration and are altered so that individuals and individual events are not identifiable.

A 46-year-old policeman was called to a street where a stolen car had crashed into a shop front. As he and a colleague drove up, their vehicle was surrounded by an angry mob who were friends of the driver of the stolen car. They were shielding their associate whilst he made his escape. The police officer in question had got out of the car and was attempting to pacify the crowd. Instead, they turned on him and beat him to the ground. His colleague shouted that he had radioed for backup, but the crowd was upon them both. The policeman suffered multiple punches and kicks. He could not see his assailants because he instinctively curled up to try to protect his head. He suffered a broken jaw. The time for the backup vehicles to arrive seemed endless. The police officer required 3 months off as a result of his injuries and anxiety, and suffered for 14 months with recurrent nightmares and flashbacks. Irritability was a prominent feature and his marriage of 20 years almost broke down.

A 28-year-old constable noticed a young man sitting alone in a bus shelter on a cold February morning. He sat with his knees up touching his head. He was wearing camouflage trousers and a vest. Concerned for the young man's welfare the constable went over to him. As he did so, the young man produced an automatic weapon and pointed it at the police officer. As he stood up he distinctly said, 'Today I'm going to kill a policeman and you are that policeman'. He held the muzzle of the gun to the policeman's neck and walked him over to a nearby wall where he asked him to wait. The policeman was aware that the young man was talking or muttering to himself and appeared psychotic. The constable was convinced he was

about to be killed. Eventually, after a protracted dialogue with himself, the young man took the gun from the officer's head and wandered off. An armed response team was summoned. The officer suffered from frequent nightmares for 6 months, which gradually tailed off over the next 6 months. His alcohol consumption increased and he started smoking. Irritability and detachment, combined with reduced libido, led to a relationship breakdown with his partner.

A 30-year-old sergeant was involved in crowd control at a football stadium. She was on duty with a male officer at the top of an internal staircase within the concrete shell of the stand. At the end of the match there was a surge in the crowd around them. Two streams of fans merged because another stairway was suddenly taken out of commission. The resulting surge of fans carried both police officers bodily down the stairs and they became separated. The sergeant became aware that the crowd was shouting abuse at her about the police and punches were thrown. She panicked because her colleague's radio was torn from him and because she noticed that she was in a blind spot from the security cameras. She therefore felt unable to summon help and that no one could see her predicament. The crowd seemed very menacing and kicks were aimed at her groin and, as she was pulled to the floor by her jacket, at her head. She thought she was about to die and 'everything slowed down'. She lost consciousness as a kick hit her head on the ground. She woke up in hospital some hours later. After this incident, she suffered from severe anxiety, headaches and flashbacks. She felt panic whenever she saw a police uniform and had severe sleep problems and nightmares. She never returned to work.

A 26-year-old woman constable was a passenger in a car pursuing a stolen vehicle containing armed robbers who were fleeing from one county to another. The police radios had stopped working in the district they were in, but they judged it important to follow the vehicle, but not to tackle the robbers. Unfortunately the driver of the stolen vehicle suddenly stopped the car on the side of the road. The police vehicle skidded awkwardly to a halt to avoid the other robber's car. The woman constable opened her door to get out, but saw that two men from the rear of the vehicle had also got out and were pointing guns at her and her colleague. The robbers opened fire as she dived back into the vehicle. They moved around the

police vehicle, firing seemingly randomly, but effectively to disable the car. She opened her eyes to see one man pointing a shotgun down at her head. She felt that this was her last moment. Then the other gunman called to his accomplice and dragged him away. The stolen car sped off at great speed, only now with a police helicopter in pursuit. The constable suffered moderate PTSD symptoms for 2 years.

Symptom profiles of police and civilian sufferers of PTSD were compared. The results are summarised in Table 1.

By and large there were no significant differences in symptom frequencies between police and civilian groups as measured by the chi-squared test.

The police tended to have more experiences of re-living the trauma or acting as if the trauma were recurring. They tended to use alcohol more and to try and think about the trauma less. These findings did not attain significance levels however.

## Treatment

Police suffering from PTSD tended to be more likely to have received antidepressant treatment and to have received counselling. This finding did not attain significance levels, however.

## Discussion

Police are likely to be subject to a variety of traumatic incidents throughout the course of their working lives – physical assault, motor vehicle accidents while pursuing criminals, and viewing victims of sudden death. Exposure to traumatic death alone increases intrusive and avoidant symptoms, hostility, somatisation, the risk of PTSD and these symptoms can persist for months<sup>5</sup>.

Police sufferers of PTSD who have long-term symptoms tend to have a few hobbies, display acute hyperarousal, suffer from job dissatisfaction, be brooding over work, and have a lack of social interaction.

## Symptom Profiles

Studies on military personnel have indicated that men and women who were exposed to similar levels of stress were equally likely to have PTSD symptoms, and that men were more likely to be diagnosed with PTSD than women<sup>6</sup>. This study shows no great differences in the symptom profiles of male and female police personnel with PTSD. By and large, this reflects civilian cases as well<sup>7</sup>. Most cases referred were men, but this may reflect the male–female ratio of referring police forces, rather than any discrimination on behalf of referring agents.

In comparing the symptom profiles of police and civilian sufferers of PTSD, the police tended to use alcohol more and to try and think about the trauma less. This could indicate an increased use of the psychological

**Table 1.** Symptom frequencies in 31 police officers with PTSD compared to 72 civilians with PTSD

| Symptom                       | Frequency of<br>police with PTSD<br>(n = 31) | Frequency of<br>civilians with PTSD<br>(n = 72) | Chi-squared test<br>p-value |
|-------------------------------|----------------------------------------------|-------------------------------------------------|-----------------------------|
| Anxiety at reminder cues      | 30                                           | 66                                              | df1, p = 0.345              |
| Insomnia                      | 29                                           | 69                                              | df1, p = 0.62               |
| Intrusive thoughts etc        | 29                                           | 65                                              | df1, p = 0.59               |
| Poor concentration            | 29                                           | 64                                              | df1, p = 0.464              |
| Irritability                  | 29                                           | 65                                              | df1, p = 0.59               |
| Diminished interest           | 27                                           | 61                                              | df1, p = 0.75               |
| Recurrent dreams              | 24                                           | 62                                              | df1, p = 0.276              |
| Detachment                    | 23                                           | 55                                              | df1, p = 0.812              |
| Avoidance activities          | 25                                           | 60                                              | df1, p = 0.526              |
| Avoidance thoughts            | 24                                           | 51                                              | df1, p = 0.491              |
| Foreshortening                | 25                                           | 55                                              | df1, p = 0.846              |
| Poor appetite                 | 22                                           | 47                                              | df1, p = 0.573              |
| Hypervigilance                | 16                                           | 39                                              | df1, p = 0.812              |
| Startle reaction              | 13                                           | 33                                              | df1, p = 0.715              |
| Acting as if trauma recurring | 13                                           | 24                                              | df1, p = 0.404              |
| Restricted affect             | 8                                            | 24                                              | df1, p = 0.449              |
| Inability to recall           | 5                                            | 14                                              | df1, p = 0.691              |
| Low libido                    | 24                                           | 47                                              | df1, p = 0.222              |
| Low mood                      | 23                                           | 50                                              | df1, p = 0.627              |
| Increased use alcohol         | 13                                           | 24                                              | df1, p = 0.404              |
| Increased use of tobacco      | 9                                            | 21                                              | df1, p = 0.989              |

defence mechanism of denial and the use of alcohol to 'blot out' memories of trauma. Military personnel with PTSD are also likely to use CNS depressants to suppress PTSD symptoms<sup>8</sup>. A high index of suspicion for PTSD should be applied to police officers presenting with alcohol or substance misuse.

Hyperarousal, irritability and use of alcohol seen in PTSD are associated with male-perpetrated marital abuse in military veterans<sup>9</sup>. Intuitively, there may be distinct risks to the families of police personnel if they develop PTSD. Further research into possible secondary effects of police PTSD on their families is needed.

Police tended to be more likely to display anxiety if faced with reminder cues, which perhaps had broken through their defence of denial. They also tended to complain more often of disturbed concentration. This could reflect other differences besides any constitutional or personality factors. The police were significantly more likely to acquire their PTSD as a result of assault or threatened murder. Such triggers may require alternative defence mechanisms, such as denial to function. In the civilian population, the most common cause of PTSD was a motor vehicle accident. Coming to terms with this may involve repeated 'safe' experiences of driving or being a passenger in a car after the trauma. People faced with traumatic assaults are unlikely to re-experience 'safe' instances of these occurrences routinely, by definition. The healing process could therefore differ between the two groups.

The 'acting as if the trauma is recurring' symptom is particularly marked amongst combat veteran cases of PTSD. The trend for the police to be more likely to have this symptom perhaps indicates the quality of the traumas they face, partway between civilian and military combat experience. Increasing numbers of gun-related incidents in the UK may see this symptom become more prevalent in police victims of PTSD. Police PTSD cases in societies with higher levels of gun-related crime, e.g. in the USA, may see higher frequencies of this particular symptom. A comparative study of samples of police officers with PTSD between countries would be required.

## Implications for Prevention, Screening and Treatment

A slight trend for increased irritability and low libido amongst police PTSD victims may predict increased marital and relationship breakdowns in this group. A prospective comparative study following matched cases of police and civilian PTSD would be worthwhile. If the prediction is confirmed, a case for relationship or family therapy in police trauma victims could be justified. Interpersonal difficulties and avoidance behaviours are key problems for the spouses of PTSD sufferers<sup>10</sup>. Merely explaining symptoms and their links to trauma

may be beneficial for partners, who may otherwise be mystified by changes in the victim. The situation may be aggravated by the denial mechanism proposed above. The traumatised police officer may use alcohol, be irritable and fail to communicate underlying anxieties and fears leading to progressive alienation from the partner and family unit.

The tendency for police cases to be more likely to receive treatment and counselling may reflect the involvement of occupational health protocols rather than anything else. Somewhat counter-intuitively, counselling and incident debriefing are not linked to a better prognosis in the literature<sup>11</sup>. A recent *Cochrane Database Review* found no evidence that psychological debriefing is a useful treatment for the prevention of PTSD after traumatic incidents. They recommended that compulsory debriefing of victims should cease<sup>12</sup>. The current study, however, cannot add to these conclusions. A prospective case-control study following cases of police PTSD would be required.

Despite the lack of evidence demonstrating efficacy for debriefing, the majority of police officers in one study were of the opinion that it would be helpful following trauma<sup>1</sup>.

Considering that exposure to traumatic incidents is inevitable, police recruitment agencies could try to sift recruits according to potential resilience to trauma. Studies in military personnel have suggested some factors as being protective against PTSD, for example high motivation and belief in a cause<sup>13</sup>. Some studies, although not this one, imply that women are at greater risk from developing PTSD<sup>14</sup>. This contentious conclusion of some studies deserves further systematic research before it impacts on recruitment decisions.

In terms of the treatment of established PTSD in the police, one study has demonstrated reduced symptomatology and earlier work resumption with psychotherapy<sup>15</sup>.

Depression is a frequently found co-morbid condition with PTSD and the combination may be long-lasting<sup>16</sup>. The combination has deleterious effects on physical health. Other authors cite PTSD alone as a risk factor for poor physical functioning<sup>17</sup>. PTSD may lead to more frequent use of primary health care services for genuine physical problems and this should be borne in mind by police occupational health agencies. Even genuine physical problems presenting to primary and occupational health may be co-existing with PTSD<sup>18</sup>.

## References

1. Robinson HM, Sigman MR, Wilson JP. Duty-related stressors and PTSD symptoms in suburban police officers. *Psychol Rep* 1997;81:835-45

2. Wagner D, Heinrichs M, Ehler U. Prevalence of symptoms of posttraumatic stress disorder in German professional firefighters. *Am J Psychiatry* 1998;155:1727-32
3. Ohayon MM, Shapiro CM. Sleep disturbances and psychiatric disorders associated with PTSD in the general population. *Comp Psychiatry* 2000;41:469-78
4. Davidson JR, Tharwani HM, Connor KM. Davidson Trauma Scale (DTS): normative scores in the general population and effect sizes in placebo-controlled SSRI trials. *Depress Anxiety* 2002;15:75-8
5. Ursano RJ, Fullerton CS, Kao TC, Bhartiya VR. Longitudinal assessment of posttraumatic stress disorder and depression after exposure to traumatic death. *J Nervous Mental Dis* 1995;183:36-42
6. Pereira A. Combat trauma and the diagnosis of post-traumatic stress disorder in female and male veterans. *Military Med* 2002;167:23-7
7. Green B. Post traumatic stress disorder: symptom profiles in men and women. *Curr Med Res Opin* 2003;19:200-4
8. Calhoun PS, Sampson WS, Bosworth HB, et al. Drug use and validity of substance use self-reports in veterans seeking help for posttraumatic stress disorder. *J Consult Clin Psychol* 2000;68:923-7
9. Savarese VW, Suvak MK, King LA, King DW. Relationships among alcohol use, hyperarousal, and marital abuse and violence in Vietnam veterans. *J Traum Stress* 2001;14:717-32
10. Biddle D, Elliott P, Creamer M, Forbes D, Devilly GJ. Self-reported problems: a comparison between PTSD-diagnosed veterans, their spouses and clinicians. *Behav Res Ther* 2002;40:853-65
11. Rose S, Brewin CR, Andrews B, Kirk M. A randomized controlled trial of individual psychological debriefing for victims of violent crime. *Psychol Med* 1999;29:793-9
12. Rose, S Psychological debriefing for preventing PTSD. *Cochrane Database Syst Rev* CD000560, 2002
13. Kaplan Z, Weiser M, Reichenberg A, Rabinowitz, Caspi A, Bodner E, Zohar J. Motivation to serve in the military influences vulnerability to future posttraumatic stress disorder. *Psychiatr Res* 2002;109:45-9
14. Stein MB, Walker JR, Forde DR. Gender differences in susceptibility to posttraumatic stress disorder. *Behav Res Ther* 2000;38:619-28
15. Gersons BP, Carlier IV, Lamberts RD, van der Kolk BA. Randomized clinical trial of brief eclectic psychotherapy for police officers with posttraumatic stress disorder. *J Traum Stress* 2000;13:333-47
16. Hyer L, Stanger E, Boudewyns P. The interaction of posttraumatic stress disorder and depression among older combat veterans. *J Clin Psychol* 1999;55:1073-83
17. Zayfert C, Dums AR, Ferguson RJ, Hegel MT. Health functioning impairments associated with posttraumatic stress disorder, anxiety disorders, and depression. *J Nerv Ment Dis* 2002;190:233-40
18. Deykin EY, Keane TM, Kaloupek D, Fincke G, Rothendler J, Siegfried M, Creamer K. Posttraumatic stress disorder and the use of health services. *Psychosom Med* 2001;63:835-41

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