

# Probable post-traumatic stress disorder and harmful alcohol use the British Police Forces and British Armed Forces: a comparative study

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## Background & Aims

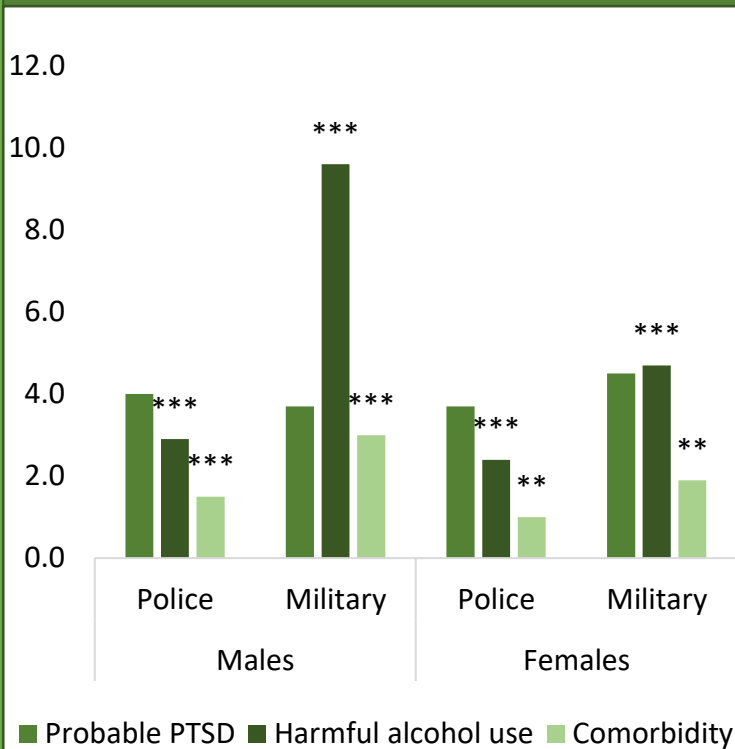
The **British Armed Forces** and **British Police Forces** are characterised by **trauma exposure** and **intensive demands** → increased risk of **post-traumatic stress disorder (PTSD)** [1,2].

**PTSD** and **harmful alcohol use** often occur together [3] → some use alcohol as a coping mechanism [4].

Both occupations are **male-dominated** → culture of **risk taking behaviours** → e.g., **harmful alcohol use**.

**Aim:** To compare the proportions of probable **PTSD** and **harmful alcohol use**, and their **comorbidity**, in male and female military personnel and police employees, whilst controlling for covariates.

## Results



## Methods

### Airwave Health Monitoring Study

**Sample:** **23,826 male and 14,145 female police employees** completed mental health and alcohol use measures (2006 to 2015).

**Measures:** **PTSD** → 10-item Trauma Screening Questionnaire (TSQ) (cut off = 6) [5]. **Harmful drinking** → NICE guidelines (>50 units for men, >35 units for women), based on a one-week drinks diary.

### Health and Wellbeing Cohort Study

**Sample:** **7,399 male and 928 female military personnel** recruited from phases 2 (2007 to 2009) and 3 (2014 to 2016) of a health and wellbeing cohort study.

**Measures:** **PTSD** → 17-item PTSD Checklist – Civilian (PCL-C) (cut off = 50) [6]. **Harmful drinking** → NICE guidelines (>50 units for men, >35 units for women), based on 2 items of AUDIT, to calculate average weekly alcohol consumption.

### Statistical Analysis

1. Descriptive statistics (frequencies and proportions) presented for outcome variables.
2. Logistic regressions estimated sample differences in outcomes (police sample as reference group) – men and women analysed separately.
3. Analyses controlled for year of data collection, age, educational attainment (then also marital status and smoking status).

## Discussion

The levels of **probable PTSD** were **similar** in police employees and military personnel, for both males and females → similar to levels observed in the general population [7].

Military personnel reported **higher levels of harmful alcohol use** (and **higher levels of comorbidity**), for both males and females

→ Male-dominated drinking culture may be more prominent in the military

→ Cultural shift in the police service, e.g., removal of station bars

### Strengths

Two large samples with good response rates (above 50%).

Harmonised measures of alcohol use.

Controlled for covariates (regression adjustment and entropy balancing).

### Limitations

Unable to harmonise measures of PTSD.

Unable to explore sociodemographic associations with outcomes in females due to small numbers.

### Implications

Continue ensuring trauma support is available through 'active monitoring' [8]

Highlights the need for alcohol-reduction interventions, particularly in the military