Background

- Approximately 70% of adults experience a traumatic stressor at least once during their lifetime [1]. Certain occupations have an increased risk of frequent trauma exposure [2].
- Trauma exposure is associated with an increased risk of hazardous or harmful alcohol consumption [3], trauma-exposed individuals use substances as a form of avoidance coping [4].
- Recurrent work-related trauma increases the likelihood of developing mental health problems [5], and mental health and alcohol problems often co-occur [6].
- The following occupations have an increased risk of trauma exposure: health care workers, first responders, armed forces personnel, train drivers and journalists [2].

Aims

- To determine the prevalence of hazardous and harmful alcohol use in occupations with an increased risk of trauma exposure
- To compare the prevalence of hazardous and harmful alcohol use across the different occupational groups
- To examine whether the prevalence of hazardous and harmful alcohol use varies depending on the measure used, mental health, sex or age.

Method

Eligibility Criteria

Condition
- Prevalence of hazardous and/or harmful alcohol use
- Standardised measure

Context
- All geographical locations

Population
- Subjects who are currently working in occupations with an increased risk of trauma exposure
- Subjects must be of working age (i.e., > 16 years old)

Quality Assessment

1. Was the sample frame appropriate to address the target population?
2. Were study participants sampled in an appropriate way?
3. Was the sample size adequate?
4. Were the study subjects and the setting described in detail?
5. Was the data analysis conducted with sufficient coverage of relevant outcomes?
6. Were valid methods used for the identification of the condition?
7. Was the condition measured in a standard, reliable way for all study groups?
8. Was there appropriate statistical analysis?
9. Was the response rate adequate, and if not, was the low response rate due to non-applicable reasons?

Results

Hazardous Use

- Overall prevalence = 22% (95% CI: 17% to 27%)
- Lower in health care workers (13%; 95% CI: 10% to 16%), compared to first responders (26%; 95% CI: 20% to 32%) and armed forces (37%; 95% CI: 20% to 56%)

Harmful Use

- Overall prevalence = 11% (95% CI: 8% to 14%)
- Highest in armed forces (14%; 95% CI: 7% to 24%), but this was not significantly greater than first responders (11%; 95% CI: 7% to 16%) or health care workers (6%; 95% CI: 1% to 15%)

Measure Used

- The AUDIT C showed higher prevalence estimates (36%; 95% CI: 23% to 51%) than the full AUDIT (18%; 95% CI: 13% to 23%) for hazardous use
- There was no difference between full AUDIT and CAGE for harmful use

Meta-regression

- Depression and PTSD were not significant predictors of variance in heterogeneity

Discussion

- Studies of armed forces personnel showed higher levels of hazardous and harmful alcohol use → male-dominated, occupational culture which encourages drinking, experience higher levels of trauma [7]
- Would have expected mental health to be associated with variation → many different measures/cut-offs, wide variation across studies
- Gaps in literature → only 1 study of train drivers, none for journalists
- However, low quality studies, and studies which used the AUDIT C, obtained higher prevalence estimates.
- Studies often used different cut-offs for the AUDIT and AUDIT C, reducing the reliability of comparisons

References (DOIs):