



BEHAVIORAL HEALTH STATISTICS IN THE FIRE SERVICE

WHAT DOES AVAILABLE RESEARCH TELL US ABOUT THE INCIDENCE OF MENTAL HEALTH CHALLENGES, INJURY, AND DISORDERS, AMONG FIRE FIGHTERS?

- The stressors faced by fire fighters and paramedics throughout their careers, including exposure to structural fires, mass casualties, manmade disasters, natural disasters, medical emergencies, suicide, LODD, pediatric calls, drug overdose, etc. can have a cumulative impact on a responder's mental health and well-being.
- Other major stressors of the fire service occupation that impact behavioral health include mandatory overtime, staffing shortages, burnout, sleep deprivation, occupational cancer, and disruption to family life and relationships caused by shift work.
- The research is clear that fire service members are at increased risk for a range of behavioral health challenges and mental health disorders. The incidence of these conditions is summarized below, based on current available research.

ANXIETY DISORDERS

- Research suggests that roughly 10% of fire fighters may struggle with some kind of anxiety disorder.ⁱ
- In a sample of 546 fire fighters (over 90% professional), over 14% reported moderate to severe symptoms of generalized anxiety disorder on the GAD-7 scale.ⁱⁱ
- Among 9/11 rescue and recovery workers, the rate of panic disorder was found to be 21%.ⁱⁱⁱ

TRAUMATIC EXPOSURE AND PTSD

- Most Americans experience three traumatic events in their lifetime^{iv} that meet the clinical definition of traumatic event, as defined by the DSM-V. This is an event that involves "exposure to actual or threatened death, serious injury, or sexual violence, or repeated or extreme exposure to aversive details of traumatic events."^v
- On average, fire fighters experience nine traumatic events in just one year of service^{vi}. As many professional fire fighters typically work a 25-year career, the traumatic impact can be cumulative.

- 22% of fire service members will meet criteria for PTSD at some point during their career^{vii}, compared to 11-30% military veterans and 6% general population.^{viii}
- 65% of IAFF members report recurring intrusive memories of critical stress on the job, based on a non-scientific IAFF survey that had 7,000 respondents.^{ix}
- 21% of IAFF members met screening criteria for PTSD in an IAFF survey that yielded 8,300 respondents.^{ix}
- Individuals with Post-Traumatic Stress Disorder (PTSD) are six times more likely to attempt suicide.^x

CLINICAL DEPRESSION

- 12% of fire service members experience clinical depression, based on a meta-analysis of 40 studies.^{xi}
- Rates of clinical depression are higher among fire service members employed in natural disaster zones (24%).^{xii}
- Many fire fighters cope with subthreshold hold symptoms of clinical depression. In an IAFF 2022 cross sectional survey that collected 8,263 respondents, 16% screened positive for major depressive disorder based on the PHQ-9 scale.^{xiii}
- Prevalence of major depressive disorder among anyone with PTSD is 50%^{xiv}
- There is limited published data on bipolar disorder among fire fighters.

SUICIDE RISK

- 28% of fire fighters were at risk for suicide or suicidal thoughts, based on the Suicide Behaviors Questionnaire-Revised (SBQ-R), based on 2022 cross sectional IAFF survey^{xv}
- The rate of male fire fighter suicide in the U.S. is 33.8 per 100 population, compared to 17.8 per 100 population among all working-age adults 18-64, according to the 2021 National Vital Statistics System.^{xvi}
- In a national sample of fire fighters, current post-traumatic stress symptoms were found to be associated with 5.2% higher odds of attempting suicide during their firefighting career.^{xvii}
- In a convenience sample of 1,027 current and retired U.S. fire fighters^{xviii}, respondents reported the following suicidal symptoms since starting their career in the fire service:
 - Suicidal ideation 46.8% (fire fighters) vs 13.5% (general U.S. population)
 - Suicide plans 19.2% (fire fighters) vs 3.9% (general U.S. population)
 - Suicide attempts 15.5 % (fire fighters) vs 4.6% (general U.S. population)

SUBSTANCE USE

- In one large study urban fire fighters across the United States, 30% met criteria for alcohol dependence.^{xix}
- In an IAFF survey, 27% of respondents reported substance abuse stemming from occupational traumatic stress^{xx}

SLEEP DISORDERS AND DEPRIVATION

- 37% of fire fighters meet criteria for at least one sleep disorder.^{xxi}
- Fire fighters with a sleep disorder are 3-6x more likely to have a mental health disorder.^{xxii}
- 70% of respondents in an IAFF survey report poor sleep due to occupational stress.^{xxiii}

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ⁱⁱⁱ Paulus, D. J., Gallagher, M. W., Bartlett, B. A., Tran, J., & Vujanovic, A. A. (2018). The unique interactive effects of anxiety sensitivity and emotion dysregulation in relation to posttraumatic stress, depressive, and anxiety symptoms among trauma-exposed firefighters. *Comprehensive Psychiatry*, 84, 54-61. <https://doi.org/10.1016/j.comppsy.2018.03.012>

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^v American Psychiatric Association. (2022). *Diagnostic and statistical manual of mental disorders* (5th ed., text rev.).

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