



Understanding mental health among military veterans in the fire service

Brooke A. Bartlett^a, Lia J. Smith^a, Jana K. Tran^b, Anka A. Vujanovic^{a,*}

^a Department of Psychology, University of Houston, Houston, TX, USA

^b Houston Fire Department, Houston, TX, USA



ARTICLE INFO

Keywords:

Firefighters
Military veterans
Posttraumatic stress
Sleep
Depression

ABSTRACT

Firefighters who have previously served in the military may be at potentially higher risk for worsened mental health outcomes. This investigation examined the mental health of military veterans, as compared to non-veterans, in the fire service. We hypothesized that firefighters who endorsed military veteran status would have higher rates of mental health symptoms, in comparison to firefighters who did not endorse prior service in the military. Age, gender, and race/ethnicity were used as covariates. The sample was comprised of 910 career firefighters, 209 (23.0%) of whom endorsed military veteran status. One-way analyses of covariance were employed. The military veteran subsample reported significantly higher levels of sleep disturbance, depression, and posttraumatic stress symptom severity in comparison to the non-veteran subsample; however, effect sizes were small indicating that between group differences are actually negligible. Results highlight the need to improve our understanding of risk and resilience factors for firefighters who have served in the military, as this line of inquiry has potentially important mental health intervention implications for this exceptionally understudied population.

1. Introduction

Firefighters represent a unique population by virtue of their exposure to chronic stress and potentially traumatic events (PTE, e.g., natural disasters, car accidents, terrorist attacks; (McCammom, 1996). Thus, firefighters are at heightened risk for the development of negative mental health outcomes, such as alcohol misuse, depression, suicidal thoughts/behaviors, and posttraumatic stress disorder (PTSD; Haslam and Mallon, 2003; Martin et al., 2017; Stanley et al., 2016). Despite the elevated risk for psychological disturbances among firefighters, there still remains a dearth of information regarding their mental health. Recent guidelines from the National Fallen Firefighters Foundation underscore as the highest priority efforts aimed at identifying and studying segments of firefighters who are at heightened risk for psychological disturbance (National Fallen Firefighters Foundation, 2016). Hence, further research is needed to understand correlates of mental health outcomes in firefighters, generally, and to identify segments of firefighters who may be at elevated risk for psychological disturbances. These research efforts have significant potential to inform evidence-based intervention and prevention efforts for this vulnerable, understudied population.

Military veterans are one such segment of the firefighter population that may be at increased risk for the development of negative mental health outcomes. Previous research has suggested that up to 44% of

firefighters in the U.S. are military veterans (Meyer et al., 2012). Notably, the proportion of military veterans in the Meyer et al. (2012) study may have been due, in part, to higher-priority hiring policies for veterans in that particular department. To date, there have been no published studies examining nationally representative samples of U.S. firefighters, and as a result, no estimates on the proportion of firefighters with military service experience are available. Similar to firefighters, military veterans may experience chronic exposure to stress (e.g., deployment) and PTE (e.g., killing during combat; Maguen et al., 2011). As such, a vast literature has documented that military veterans experience high rates of various types of adverse mental health outcomes (e.g., alcohol use disorder, PTSD, suicide; Jacobson et al., 2008; Seal et al., 2009; U.S. Department of Veterans Affairs, 2016), in comparison to the general population.

Although research examining military veteran subsamples in comparison to non-veteran subsamples among firefighters is scarce, available research suggests that firefighters who have served in the military are at risk for worsened mental health outcomes in comparison to firefighters who have not served in the military. For example, Stanley et al. (2015) found that active duty military status among firefighters was associated with increased risk for reporting suicidal thoughts and behaviors. Similarly, Paulus et al. (2017) noted significantly higher PTSD and depressive symptoms among firefighters who endorsed active duty military status. Unfortunately, no studies to

* Corresponding author.

E-mail address: aavujano@central.uh.edu (A.A. Vujanovic).

date have been focused explicitly upon understanding the mental health of military veterans in the fire service.

Theoretically, the potentially stressful and traumatic events experienced by firefighters who served in the military may predispose them to higher levels of psychological disturbances, as a result of progressively increased responsivity to additional traumas or stressors endured in the fire service. For example, the stress sensitization model, defined as an individual's enhanced reactivity to stressors as a result of prior exposure to extreme stressors (Hammen et al., 2000; Smid et al., 2012), has been supported among trauma-exposed populations including combat veterans (Smid et al., 2013, 2012). Thus, individuals who begin a firefighter career with prior exposure to military-related stressors and military-related PTE may be particularly vulnerable to developing negative mental health consequences once exposed to the stressors of the fire service.

Therefore, the current study aimed to contribute to the extant literature by providing a focused examination on the mental health symptomatology of military veterans, as compared to non-veterans, within the fire service. Specifically, we compare military veterans and non-veterans in the fire service on the following mental health outcomes: alcohol use, sleep disturbance, depression, suicidality, trauma exposure, and posttraumatic stress symptoms. We hypothesized that firefighters who endorsed military veteran status would report higher rates of trauma exposure and general mental health symptomatology, across all indices, in comparison to firefighters who did not endorse prior service in the military. We also conducted exploratory analyses comparing military veteran and non-military veteran firefighters on cutoff scores for potentially hazardous drinking, significant sleep disturbance, clinical depression, global suicide risk, and PTSD diagnosis.

2. Methods

2.1. Participants

This study is a secondary analysis of data from a larger project examining stress and health-related behaviors among firefighters. The overall sample included 910 career firefighters (94.7% male; $M_{age} = 38.4, SD = 8.6$), of whom 5 endorsed current active duty status and 204 endorsed prior active duty status. For the purposes of this study, we combined firefighters endorsing current and past active military duty to represent military veteran status. Thus, our sample included 209 (23.0%) firefighters who were military veterans (96.7% male; $M_{age} = 39.9, SD = 6.5$) and 700 who were non-veterans (94.1% male; $M_{age} = 38.0, SD = 9.2$). Please see Table 1 for participant characteristics. Participants were career firefighters, who perform both Emergency Medical Services (EMS) and fire suppression services, at a fire department in a large metropolitan area in the southern U.S. To be included in the study, participants must: be 18 years of age or older, be current firefighters, and have consented to participation and completion of all online questionnaires. Exclusionary criteria were comprised of inability or unwillingness to provide informed consent for the completion of the online questionnaires. Please see Procedures section for more information.

2.2. Measures

Demographic questionnaire. Participants were asked to self-report demographic information including sociodemographic factors, firefighter service history, and military service history.

Alcohol Use Disorders Identification Test (AUDIT; Saunders, Aasland, Babor, de la Fuente, and Grant, 1993). The AUDIT is an extensively validated 10-item, Likert-style screening instrument that was developed by the World Health Organization and designed to identify individuals presenting with alcohol problems (Newcombe, Humeniuk, & Ali, 2005; Saunders et al., 1993). Scores range from 0 to 40, and the generally accepted cut-off to identify potentially hazardous drinking is 8. The

Table 1
Participant demographic characteristics.

M/n (SD/%)	Full sample (n = 910)	Veterans (n = 209)	Non-veterans (n = 700)	p-value
Age¹	38.40 (8.64)	39.88 (6.46)	37.96 (9.15)	0.001
Gender¹				0.048
Male	862 (94.7%)	202 (96.7%)	659 (94.1%)	
Female	43 (4.7%)	7 (3.3%)	36 (5.1%)	
Transgender	5 (0.5%)	0 (0%)	5 (0.7%)	
Race/Ethnicity¹				0.024
White	675 (74.2%)	153 (73.2%)	521 (74.4%)	
Hispanic/Latino	250 (27.5%)	67 (32.1%)	183 (26.1%)	
Black/African American	117 (12.9%)	34 (16.3%)	83 (11.9%)	
'Other'	84 (9.2%)	12 (5.7%)	72 (10.3%)	
Asian	17 (1.9%)	5 (2.4%)	12 (1.7%)	
Native Hawaiian/ Pacific Islander	1 (0.1%)	0 (0%)	1 (0.1%)	
American Indian/ Alaskan Native	16 (1.8%)	5 (2.4%)	11 (1.6%)	
Education¹				0.155
8th Grade	4 (0.4%)	1 (0.5%)	3 (0.4%)	
GED (or equivalent)	7 (0.8%)	2 (1.0%)	5 (0.7%)	
High School	75 (8.2%)	26 (12.4%)	49 (7.0%)	
Some College	427 (46.9%)	113 (54.1%)	314 (44.9%)	
Bachelor's Degree	397 (43.6%)	67 (32.1%)	329 (47.0%)	
Marital status¹				0.354
Married	623 (68.5%)	145 (69.4%)	477 (68.1%)	
Divorced	55 (6.0%)	24 (11.5%)	31 (4.4%)	
Living with Partner	45 (4.9%)	4 (1.9%)	41 (5.9%)	
Single	185 (20.3%)	36 (17.2%)	149 (21.3%)	
Widowed	2 (0.2%)	0 (0%)	2 (0.3%)	
Employment status¹				0.950
Part-time Paid	14 (1.5%)	3 (1.4%)	11 (1.6%)	
Part-time Volunteer	3 (0.3%)	1 (0.5%)	2 (0.3%)	
Full-time Paid	888 (97.7%)	204 (97.6%)	684 (97.7%)	
Full-time Volunteer	4 (0.4%)	1 (0.5%)	3 (0.4%)	
Years of service in department¹	13.17 (9.12)	12.65 (6.64)	13.33 (9.74)	0.243
Military characteristics¹	–			
Current active duty status	–	5 (0.02%)	–	
Years of active duty service	–	4.79 (2.70)	–	
Average number of deployments	–	1.78 (1.89)	–	
Deployed in OEF/OIF	–	84 (40.6%)	–	
Served in combat/war zone	–	107 (51.7%)	–	
Military branch¹				
Army	–	87 (41.6%)	–	
Navy	–	44 (21.1%)	–	
Air Force	–	13 (6.2%)	–	
Marine Corps	–	57 (27.3%)	–	
Coast Guard	–	7 (3.3%)	–	
Army National Guard	–	14 (6.7%)	–	
National Reserves	–	11 (5.3%)	–	

Note: ¹Demographics questionnaire; OEF/OIF = Operation Enduring Freedom/Operation Iraqi Freedom

AUDIT has demonstrated good test-retest reliability (Selin, 2003) and convergent (García Carretero, Novalbos Ruiz, Martínez Delgado, & O'Ferrall Gonzalez, 2016) and discriminant validity (Bohn, Babor, & Kranzler, 1995). The AUDIT has demonstrated high sensitivity and specificity for detecting probable alcohol dependence and hazardous or harmful drinking (sensitivity = 32–96%, specificity = 84–96%; Barry & Fleming, 1993; Saunders et al., 1993; Schmidt, Barry, & Fleming, 1995). In the present study, internal consistency for the total AUDIT score ($\alpha = 0.87$) was good.

Pittsburgh Sleep Quality Index (PSQI; Buysse, Reynolds, Monk, Berman, & Kupfer, 1989). The PSQI is a 19-item self-report measure of sleep disturbances during the previous month. The PSQI subscales include subjective sleep quality, sleep latency, sleep duration, habitual

Download English Version:

<https://daneshyari.com/en/article/6811337>

Download Persian Version:

<https://daneshyari.com/article/6811337>

[Daneshyari.com](https://daneshyari.com)