First On-Scene: The Firefighter Family System

Assessing the Mental Health Impact
of the Fire Service on Firefighter Families

Dean S. Gribbons, M.S.
PsyD Doctoral Candidate
dgribbons@callutheran.edu

October 2023

Firefighters are routinely exposed to occupational and duty-related stressors, which have been linked to the development of post-traumatic stress disorder (PTSD) and other psychiatric conditions (e.g., burnout, depression, substance use). These conditions are associated with a range of negative outcomes, from work-related injuries to suicide (Smith et al., 2018; Martin et al., 2017; Katsavouni et al., 2016). Consequently, firefighter families face an elevated risk of developing secondary traumatic stress (STS) due to their indirect exposure to traumatic events through communication and other forms of engagement with their firefighters (Alrutz et al., 2020). This paper explores the mental health impact of the fire service on firefighter families and concludes with recommendations on how to begin addressing these concerns. These conclusions are drawn from a thorough review of the literature and research findings, providing valuable insights into this severely neglected topic of study.

Introduction

Firefighter families form interconnected emotional units, where the behaviors and emotions of each family member can influence the entire family system (Kerr & Bowen, 1988; Roth & Moore, 2009). Similarly, the fire service and firefighter families are intertwined, with stressors from work-life often "spilling over" into the home-life of individual firefighters, and vice versa (Casas & Benuto, 2022). Consequently, establishing an effective balance at work, home, and between these two domains is critical for the overall well-being of each firefighter and their families.

Above and beyond the general occupational stressors associated with the fire service (e.g., sleep disturbances, shift-work, co-worker conflict, tedium/routine), secondary traumatic stress (STS), or vicarious trauma, is a mental health condition that any member of a firefighter family may experience as a result of indirect exposure to the traumatic events, stress, or other emotionally charged experiences that firefighters encounter in the line on duty (e.g., catastrophic injuries to self or others, gruesome victim incidents, pediatric deaths) (Casas & Benuto, 2022). Modern family structures in the firefighter community may encompass spouses/civil partners, cohabiting or intimate partners, and parents of children/dependents (Gribble et al., 2020). Indirect exposure occurs when a family member witnesses or hears about dangerous or life-threatening situations either directly from the firefighter or through some other secondary source (e.g., the news, a friend or family member, another firefighter). Consistent with the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (American Psychiatric Association [APA], 2013), how we experience and respond to such indirect exposure can sometimes lead to posttraumatic stress symptoms (PTSS). These symptoms include intrusive distressing thoughts or dreams related to the traumatic event; avoidance of thoughts, feelings, or external reminders (e.g., people, places, conversations, activities) associated with the traumatic event; negative emotional states (e.g., emotional numbing, fear, anger, guilt, shame) and thoughts (e.g., "the world is completely dangerous") beginning or worsening after the trauma occurred; and disturbances in arousal and reactivity (e.g., irritable behavior, hypervigilance, difficulty concentrating, sleeping difficulties). Individually or collectively, any of these symptoms could lead to a significant amount of distress or impairment at work, home, and other valued areas of life (e.g., recreational activities, community involvement, spirituality, and so on).

A clear understanding of how both direct and indirect exposure impacts firefighters and their family members is critically important, especially considering how social support from family members is one of the strongest predictors of behavioral health and well-being and has been associated with lower levels of posttraumatic stress and depressive symptoms among emergency responders (Hill et al., 2020; Vig et al., 2020; Regehr, 2003). Additionally, family members are often the first "on-scene" to notice and respond to the negative effects and emotional distress experienced by their firefighter and are also usually the first to encourage them to seek a higher level of support (e.g., a licensed professional) when necessary (Tamraker, 2020). According to Lawn and colleagues (2021), emotional distancing and anger are often the first indicators of this change in functioning among various first responder populations. Unfortunately, and either due to a lack of education, organizational support, or some other barrier (e.g., cultural stigma, fear of being perceived as weak, career concerns, negative experiences with therapy), family members often wait until these problems reach a crisis or "tipping point" (e.g., separation due to physical or psychological violence, threats to the safety of children) before challenging these barriers to help-seeking.

Literature Review

While a considerable amount of research has been conducted on the relationship between the fire service and mental health outcomes among firefighters themselves, considerably less research has been conducted on the impact of the fire service on firefighter families. What has been examined in this severely neglected area of research usually groups different classes of "first responders" together, including law enforcement officers (e.g., police), single function ambulance personnel (e.g. EMTs and paramedics), and sometimes includes military personnel due to duty-related and cultural similarities shared between these groups (e.g., pride in serving their community or country, brotherhood, training mentality). Below is a brief summary of this research.

McKeon and colleagues (2021) conducted a study that examined physical and mental health related outcomes among informal caregivers (e.g., friends and family) of first responders (firefighters, ambulance personnel, and police). This study reported that informal caregivers of first responders as a whole reported higher levels of mental health symptoms related to depression and anxiety than the general population. Additionally, this study reported that family and friends of firefighters reported poorer quality of life, worse sleep quality (73% of the total sample reported difficulties with sleep), and less physical activity compared to the general population.

Alrutz and colleagues (2020) conducted a study that examined the relationship between exposure to trauma and secondary traumatic stress (STS) among spouses of first responders (fire, EMS, police). This study reported that 20% of the sample endorsed mental health symptoms related to trauma, including intrusive symptoms, hyperarousal, and avoidance as a result of the duty-related trauma experienced by their first responder. Of concern, nearly half of the spouses in this study reported that they felt they did not have emotional or informational

support to help them navigate their problems. Regarding organizational support, spouses in this study shared both direct and indirect strategies that could help them prevent or mitigate the posttraumatic stress reactions experienced by them and their first responders. Direct strategies included 1) access to counselors for both the spouses and first responders, 2) mandatory debriefings and counselling following a traumatic event, and 3) additional psychoeducation on managing traumatic stress, among others. Indirect strategies included 1) ensuring the confidentiality of first responders, and by extension their families, is respected, 2) decreasing stigma toward help-seeking, and 3) organizational support to develop either informal or formal supportive activities to create opportunities for spouses to form their own networks or support groups. Finally, spouses requested more direct communication from the organization (as opposed to receiving information indirectly form their first responder or by word of mouth), related to 1) delays in returning home, 2) invitations to events and activities, and 3) notifications when their partners are exposed to potentially traumatic events (PTEs).

A number of studies have also looked at how parental occupational exposure to trauma is associated with child psychopathology among various first responder populations. A frequently cited study conducted by Duarte and colleagues (2006) found that children of EMTs who responded to the World Trade Center attacks on September 11th had a higher prevalence of "probable [PTSD]" compared to families of police officers, firefighters, and non-first-responders. The authors noted how these differences may have been related to differences in work schedules as well as the amount and quality of social support firefighters provide one another at work (EMTs often have irregular and unpredictable work schedules which makes relying on co-worker support more difficult). Kishon and colleagues (2020) examined the relationship between parental occupational exposure to trauma and child psychopathology among Israeli firefighters and paramedics/EMTs. This study found that paternal exposure was associated with increased PTSD symptoms among their children. Interestingly, even though mothers in this study were not first responders, the study found that maternal occupational exposure to trauma was associated with a number of child mood-related problems, including generalized anxiety, panic, depression, and oppositional defiance. The authors speculated that maternal exposure could impact parenting practices in such a way that negatively affects children's ability to regulate their emotions effectively given how mothers are "usually the primary caregivers" and spend a significant amount of time with their children while their first responder is at work. These findings support the premise that the entire family unit is likely to experience mood and/or trauma-related symptoms regardless of which parent is emotionally injured.

Recommendations

Taken together, these findings underscore the necessity for family-centered interventions that consider the entire family system when addressing the mental health impact of the fire service on firefighters and their families. Subsequently, a series of recommendations based on the literature review and associated research findings, particularly the study conducted by Lawn and colleagues (2022), who conducted detailed interviews with first responder families regarding their experiences seeking help for mental health problems. Additionally, it is important to note that conducting initial and ongoing assessments specifically tailored to the cultural context of the

department is crucial to understand and keep track of the specific needs of the department and its members, including members' families. These assessments can be carried out at fixed intervals (e.g., annual, bi-annual) and incident-specific intervals (i.e., following a critical incident).

First, to raise awareness and equip firefighters and their families with the necessary language tools to discuss the subtle to overt impact of the fire service on their family, the introduction of psychoeducational programs (such as workshops, talks, webinars) is crucial. These programs aim to prepare firefighters and their families to respond more effectively to early signs of mental health issues (e.g., anger, emotional distancing) before they escalate into crisis situations. This involves clarifying the roles each family member can play in providing or seeking support. To increase engagement and cultural sensitivity, individual topics to be included in these programs should be identified collaboratively with input from firefighters and their families. These programs should be implemented as early as recruitment and initial training (e.g., drill tower) with ongoing education and support being made available to match department needs. To combat cultural stigma and improve attitudes towards help-seeking, these programs can be implemented collaboratively with firefighters and family members who are considered "experts by experience" regarding the covered topics. Finally, in order to validate and address anxieties related to career concerns, return-to-work policies, and privacy and confidentiality procedures, open and honest discussions should be encouraged.

Second, research suggests it is essential to establish formal Family Support Liaison roles to enhance awareness and improve the availability and accessibility of resources for family members. These roles should be ideally suited or matched to address their needs in a culturally attuned manner. For instance, the International Association of Fire Fighters (IAFF) currently provides a more formal Firefighter/Family Crisis and Support Line which gives firefighters and their families access to mental health clinicians attuned with fire service culture (IAFF Center of Excellence for Behavioral Health Treatment and Recovery, 2022). Alongside formal channels of support, the creation of more informal "Family Peer Support" groups can further develop and strengthen cohesion while fostering a greater sense of belongingness among firefighter families. For instance, Fire Family Peer Support is a non-profit organization that offers family peer support led by family members of firefighters and organizes family fun events in the community and at individual fire stations to help family members become more familiar with one another (Fire Family Peer Support, 2023).

Third, individual and group interventions can be enhanced by involving family members and addressing specific concerns pertinent to the firefighting profession, such as trauma, shift-work, and sleep disturbances. Roth & Moore (2009) conducted a study exploring the impact of shift work on the family system, which identified additional skills beneficial for firefighter families to navigate common "transition-to-home" issues and achieve a balanced family dynamic. These skills encompass communication strategies and problem-solving techniques aimed at addressing emotional reactions experienced at work and effectively negotiating family and household responsibilities.

Fourth, it is essential to offer education and training to officers and other leaders within the department, including chiefs, captains, and peer support leaders, emphasizing the critical importance and impact family members can have in their support roles. This presents an excellent opportunity for captains and influential figures in positions of authority to lead by example.

In addition to emphasizing efforts to ensure every firefighter goes home safely, we must also prioritize ensuring that the home they return to is safe and supportive. To achieve this, fostering an environment that values and actively encourages a positive service culture will contribute to the well-being and flourishing of both firefighters and their families.

References

Alrutz, A. S., Buetow, S., Cameron, L. D., & Huggard, P. K. (2020, September). What happens at work comes home. *In Healthcare* (Vol. 8, No. 3, p. 350). MDPI.

APA, A. P. A. (2013). Diagnostic and statistical manual of mental disorders. The American Psychiatric Association.

Casas, J. B., & Benuto, L. T. (2022). Work-related traumatic stress spillover in first responder families: A systematic review of the literature. *Psychological Trauma: Theory, Research, Practice, and Policy*, 14(2), 209.

Duarte, C. S., Hoven, C. W., Wu, P., Bin, F., Cotel, S., Mandell, D. J., ... & Markenson, D. (2006). Posttraumatic stress in children with first responders in their families. *Journal of Traumatic Stress: Official Publication of The International Society for Traumatic Stress Studies*, 19(2), 301-306.

Fire Family Peer Support (October, 2023). About Us. Fire Family Peer Support. Ffpeer.org

Gribble, R., Mahar, A. L., Keeling, M., Sullivan, K., McKeown, S., Burchill, S., ... & Castro, C. A. (2020). Are we family? A scoping review of how military families are defined in mental health and substance use research. Journal of Military, Veteran and Family Health, 6(2), 85-119.

Hill, R., Sundin, E., & Winder, B. (2020). Work–family enrichment of firefighters: "satellite family members", risk, trauma and family functioning. *International Journal of Emergency Services*, 9(3), 395-407.

IAFF Center of Excellence for Behavioral Health Treatment and Recovery (February, 2020). IAFF Center of Excellence Family Resource Guide. International Association of Fire Fighters. Iaffrecoverycenter.com/resources

Martin, C. E., Vujanovic, A. A., Paulus, D. J., Bartlett, B., Gallagher, M. W., & Tran, J. K. (2017). Alcohol use and suicidality in firefighters: Associations with depressive symptoms and posttraumatic stress. *Comprehensive Psychiatry*, 74, 44-52.

Katsavouni, F., Bebetsos, E., Malliou, P., & Beneka, A. (2016). The relationship between burnout, PTSD symptoms and injuries in firefighters. *Occupational Medicine*, 66(1), 32-37.

Kerr, M. E., & Bowen, M. (1988). Family evaluation. WW Norton & Company.

Kishon, R., Geronazzo-Alman, L., Teichman, M., Teichman, Y., Cheslack-Postava, K., Fan, B., ... & Hoven, C. W. (2020). Parental occupational exposure is associated with their children's psychopathology: A study of families of Israeli first responders. *Journal of Occupational and Environmental Medicine*, 62(11), 904-915.

Lawn, S., Waddell, E., Rikkers, W., Roberts, L., Beks, T., Lawrence, D., ... & Van Hooff, M. (2022). Families' experiences of supporting Australian veterans and emergency service first responders (ESFRs) to seek help for mental health problems. *Health & Social Care in the Community*, 30(6), e4522-e4534.

McKeon, G., Wells, R., Steel, Z., Moseley, V., & Rosenbaum, S. (2021). Self-Reported physical and mental health of informal caregivers of emergency service workers. *Journal of Loss and Trauma*, 26(6), 507-518.

Regehr, C., Hill, J., Knott, T., & Sault, B. (2003). Social support, self-efficacy and trauma in new recruits and experienced firefighters. *Stress and Health*, 19(4), 189-193.

Roth, S. G., & Moore, C. D. (2009). Work-family fit: the impact of emergency medical services work on the family system. *Prehospital Emergency Care*, 13(4), 462-468.

Smith, T. D., Hughes, K., DeJoy, D. M., & Dyal, M. A. (2018). Assessment of relationships between work stress, work-family conflict, burnout and firefighter safety behavior outcomes. *Safety Science*, 103, 287-292.

Tamrakar, T., Langtry, J., Shevlin, M., Reid, T., & Murphy, J. (2020). Profiling and predicting help-seeking behaviour among trauma-exposed UK firefighters. *European Journal of Psychotraumatology*, 11(1), 1721144.

Vig, K. D., Mason, J. E., Carleton, R. N., Asmundson, G. J. G., Anderson, G. S., & Groll, D. (2020). Mental health and social support among public safety personnel. Occupational Medicine, 70(6), 427-433.