THE EFFECTS OF BURNOUT/COMPASSION FATIGUE ON EMERGENCY MANAGEMENT PROFESSIONALS

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This research project examines the prevalence of stress, burnout, and compassion fatigue among emergency management personnel and their coping strategies amid the COVID-19 pandemic. Through surveys of 312 first responders in municipal governments, this study identified significant stress level increases among crisis management personnel. More importantly, it found that most respondents did not plan to seek support and training. Expanding the discussion of emergency managers' well-being and the person-organization relationship to include a broader range of local government managers could significantly enhance local government human resources management, especially in a turbulent and highly competitive environment.

INTRODUCTION

Emergency management is one of the core functions of local government (Howell, 2020). Although federal and state governments have been the primary sources of disaster assistance funding, local government is the most important actor in emergency management and the bridge between the local community and federal and state agencies. Local governments are the leading actors in assessing threats, identifying community vulnerability, and mobilizing resources (Henstra, 2010). Specifically, local emergency management offices and public health departments make plans and provide resources to protect their citizens and, therefore, are the primary authoritative organizations in emergency management (Choi & Wehde, 2020). As Schneider (1995) noted, only the government has "the technical capability, the appropriate resources, and the authority to coordinate a range of disaster-related responses" (as cited by Vick, 2020). Overall, the massive impact of emergencies and disasters requires local government to establish high-quality local emergency management programs and a motivated and skilled workforce of local officials and first responders such as professional emergency managers, firefighters, law enforcement officers, and emergency medical service personnel.

Emergency managers and first responders are essential to assist the return of individuals and communities affected by disastrous events to their pre-disaster level of functioning as soon as possible. As public servants, they are expected to be thorough, professional, ethical, and innovative. Their well-being and strong motivation play a critical role in this public service process and impact their job performance. However, continuous exposure to disasters can cause possible adverse resultant outcomes such as burnout and compassion fatigue among these individuals. Stress, burnout, and compassion fatigue impact emergency and disaster responders cognitively, emotionally, behaviorally, spiritually, interpersonally, and physically. These issues can, in turn, impact emergency preparedness and response services in communities. For instance, during the COVID-19 pandemic, many first responders' physical and mental health were at the highest risk and experienced deleterious mental health outcomes. Over extended periods, responders trying to managing the effects of the COVID-19 pandemic wore personal protective equipment, cared for infected individuals, coped with resource shortages, and faced personal and professional challenges as colleagues or loved ones contracted the virus.

Therefore, this research explores the question: "How did occupational stress, burnout, and compassion fatigue affect various first responders (such as paramedics, firefighters, and police officers) during the COVID-19 pandemic, and what were their coping strategies?"

This paper is organized into five main sections. The following section reviews literature on the well-being of emergency managers and the person-organization relationship. The third section outlines the research methodology. The fourth section presents the results of the study, and the last section discusses and concludes our findings.

LITERATURE REVIEW

CONCEPTS OF OCCUPATIONAL STRESS, BURNOUT, AND COMPASSION FATIGUE

Stress refers to an individual's perception of a challenging or compromising situation (Lazarus & Folkman, 1984). Occupational stress encompasses various psychological and physical conditions resulting from job duties, contributing to issues like anxiety, depression, and post-traumatic stress disorder (PTSD) (Antony et al., 2020). For first responders, stress arises from factors such as traumatic events and organizational challenges and impacts both physical and mental health, often leading to burnout (Kaplan et al., 2017). Research indicates

that in addition to exposure to traumatic events, lack of social support, poor access to healthy coping skills, and limited access to mental health resources increase the stress risks (Lewis-Schroeder et al., 2018).

Burnout is characterized by emotional exhaustion, depersonalization, and personal derealization, and it is particularly prevalent in high-intensity professions (Benincasa et al., 2022; Siegel & Nagengast, 2019; Smirnova et al., 2021). It manifests feelings of powerlessness, frustration, negative attitudes, and substandard work performance (Back et al., 2014). Organizational factors such as workload, control, community support, fairness, and institutional values contribute significantly to burnout (Leiter & Maslach, 1999), impacting both individual well-being and organizational effectiveness.

Compassion fatigue is defined as a state of physical, emotional, and mental exhaustion resulting from prolonged exposure to emotionally demanding situations (Pines & Aronson, 1988, as cited in Figley, 1995). It can cause feelings of helplessness and depression and lead to absenteeism, withdrawal, and irritability behaviors. Studies have found the prevalence and effects of compassion fatigue among first responders who are continuously exposed to distressing and traumatic events (Back et al., 2014; Neville & Cole, 2013). Some scholars argue that compassion fatigue should replace burnout as compassion fatigue more accurately captures the longitudinal effects of workplace distress (Back et al., 2014). This phenomenon is particularly pertinent in professions requiring emotional support, such as healthcare, emergency response, and social work. Figley (1995) highlighted several factors contributing to compassion fatigue, including empathy depletion, personal trauma histories, and exposure to traumatic client experiences, especially affecting caregivers of traumatized children.

EFFECTS OF STRESS, BURNOUT, AND COMPASSION FATIGUE

Scholars have extensively studied stress, burnout, and compassion fatigue among first responders exposed to traumatizing events, such as firefighters, police officers, nurses, and social workers. For example, there have been extensive studies on police officers' physical and mental health. Police officers have notoriously higher rates of cancer, heart disease, and depression than the rest of the population (Magnavita et al., 2018; Wirth et al., 2013). Potential health problems facing officers may be as minor as a headache or as serious as coronary heart disease (Ayres, 1990). A study revealed connections between the daily stressors of police work with obesity, suicide, sleeplessness, and

cancer, as well as general health disparities between police officers and the general population (Goldbaum, 2012, as cited by Casey, 2019).

Burnout has been associated with a decreased sense of personal satisfaction for contributions made in the workplace (Papazoglou & Blumberg, 2020). Social workers, who support traumatized populations, share emotional burdens to facilitate healing, exposing them to compassion fatigue (Bride et al., 2007). Factors contributing to burnout include empathy fatigue and personal trauma, which influences emotional resilience in client interactions (Figley, 1995).

EFFECTS OF THE COVID-19 PANDEMIC

The COVID-19 pandemic exacerbated the health risks and mental health problems of first responders. Emergency medical services workers and firefighters had a high infection rate of COVID-19 and increased medical leave (Prezant et al., 2020). Also, first responders experienced serious PTSD, depression, and insomnia, and had thoughts of suicide or self-harm (Hendrickson et al., 2022). Concerns of medical vulnerability and both the physical and mental effects of the COVID-19 pandemic significantly impacted their ability to perform their usual work and their likelihood of leaving the occupation (Berner & Hetzel-Riggin, 2024; Hendrickson et al., 2022).

COPING STRATEGIES

Individuals experiencing stress, burnout, and compassion fatigue employ various coping strategies. Lazarus and Folkman (1984) identified problemfocused and emotion-focused approaches. Díaz-Tamayo et al. (2022) conducted a systematic review of first responders' coping strategies and categorized those into adaptive and nonadaptive strategies. Adaptive strategies include acceptance, deliberate reflection, and positive interpretation (Iwasaki et al., 2005; Miller & Brown, 2021; Piñar-Navarro et al., 2020). Scholars have suggested that positive coping strategies could focus on psychological debriefing, exploring and reviewing impressions, thoughts, emotions, and education, which lead to cognitive transformation and positive outcomes (Moskola et al., 2021; Ogińiska-Bulik & Langer, 2007; Sattler et al., 2014; Vaulerin et al., 2016; Witt et al., 2018; Yang & Ha, 2019). Arble et al. (2018) found that adaptive coping was positively associated with greater well-being and posttraumatic growth. These can be done at both individual and organizational levels. Donovan (2022) found that peer and employer support help first responders to address stress and mental health issues.

However, adaptive strategies were found less frequently among emergency personnel compared to nonadaptive coping strategies (Arble et al., 2018; Díaz-Tamayo et al., 2022). Nonadaptive strategies refer to actions of downplaying stressful situations, such as avoidance, disconnection, and denial. During the pandemic, first responders adopted more adaptive coping strategies such as information-gathering, seeking emotional support, and practicing self-care (Berner & Hetzel-Riggin, 2024). However, actions such as ingesting alcohol and suppressing emotions were also found to be prevalent among them (Smeltzer et al., 2022; Vujanovic et al., 2021).

RESEARCH DESIGN

This study investigates the impact of the COVID-19 pandemic on stress, burnout, and compassion fatigue among emergency management personnel and explores implications for local government management. A survey comprised of 19 multiple-choice and optional write-in questions (See Appendix) was designed. The survey included a demographic questionnaire, COVID-19 infection-related questions, questions that aim to identify any trends or correlations among emergency management personnel, and questions of stress levels before and during the pandemic response. Additionally, it explores support systems such as counseling and stress, burnout, and coping training.

SURVEY ADMINISTRATION

The survey was distributed via email listservs, LinkedIn, and Facebook groups. The lead author, a member of various emergency management and first responder communities, shared the anonymous survey link across platforms including emergency management groups on Facebook and LinkedIn, forums on the International Association of Emergency Managers website, the North Central Texas Council of Governments listserv, and the Amarillo Area Office of Emergency Management listserv. Distribution occurred between August and November 2020, capturing firsthand data on emergency management personnel's experiences during the pandemic.

Our survey included a screening question, "How would you describe your current organization?" The respondents could select from local government, regional government, state government, federal government, private industry, nonprofit, and education.

DATA ANALYSIS

We received 312 responses from volunteer participants who work in the professions of emergency management, preparedness, and response in municipal and county governments. Our data analysis followed a structured approach, beginning with data cleaning and applying descriptive statistics. Initially, we screened responses to ensure all participants met inclusion criteria. We then conducted descriptive analyses to summarize demographic characteristics and key variables. This included calculating frequencies and percentages for categorical variables (e.g., gender, age group, job role) and means with standard deviations for continuous variables (e.g., years of experience). Additionally, we computed mean scores and standard deviations to assess stress levels before and during the COVID-19 pandemic, as well as indicators of burnout and compassion fatigue.

FINDINGS

RESPONDENTS' DEMOGRAPHICS

We asked a series of demographic questions to create a baseline for investigating potential corollary data points. Of 312 respondents, a slight majority were female at 52.9%, and 47.1% were male. The most identified age ranges were 30-39 (30.1%), 40-49 (26.6%), and 50-59 (22.4%).

Respondents were asked to identify their work type, education level, career level, and position level to help identify trends in stress, burnout, and compassion fatigue. Most respondents reported working in emergency management or as first responders, with a significant proportion holding at least a bachelor's degree (Table 1).

Respondents were requested to describe their current career level and their position level. It was expected that not all respondents would be at the same level as part of both questions. 60.3% of respondents indicated they were at a mid-career level, with 26.3% being late-career and 12.8% being entry-level. It was more evenly split regarding position level, with 39.1% being at a mid-level (e.g., supervisor, assistant department head), 35.6% being at a director level, and 24.7% at an entry-level (e.g., planner, specialist, etc.).

TABLE 1RESPONDENTS' DEMOGRAPHICS

VARIABLE (N=312)	CATEGORY	N (%)
Gender	Female	165 (52.9%)
	Male	147 (47.1%)
Age Range	Under 20	1 (0.3%)
	20-29	32 (10.3%)
	30-39	94 (30.1%)
	40-49	83 (26.6%)
	50-59	70 (22.4%)
	60-69	30 (9.6%)
	70+	2 (0.6%)
Education Level	Student	13 (4.2%)
	Bachelor's Degree	147 (47.1%)
	Master's Degree	102 (32.7%)
	Ph.D. or Equivalent	7 (2.2%)
	No Degree	43 (13.8%)
Type of Work	Emergency Management	138 (44.2%)
	First Responder	70 (22.4%)
	Healthcare	20 (6.4%)
	Public Health	16 (5.1%)
	Other	68 (21.8%)
Career Level	Student	2 (0.6%)
	Entry-Level	40 (12.8%)
	Mid-Career	188 (60.3%)
	Late-Career	82 (26.3%)
Position Level	Student	2 (0.6%)
	Entry-Level (Planner/ Specialist)	77 (24.7%)
	Mid-Level (Supervisor/Asst.EMC/Deputy EMC)	122 (39.1%)
	Director-Level/EMC/City Management	111 (35.6%)

In addition to demographic data, respondents were asked about their experiences during COVID-19. This included whether they or someone close to them had tested positive for COVID-19. At the time of the survey, 5.8% of respondents had tested positive, while 59.6% reported having a family member, close friend, or co-worker who had tested positive. These infections impacted their job performance first responders and mental health, underscoring the importance of safety measures to maintain workforce resilience.

STRESS, BURNOUT, AND COMPASSION FATIGUE

To maintain a functional workforce of emergency management and response, first responders' mental health must be bolstered. The remainder of the survey focused on stress, burnout, compassion fatigue, and potential mitigators for stress. These questions were paramount in identifying trends or correlations between crisis management personnel and stress. The survey also asked questions about stress, burnout, compassion fatigue, and coping methods.

As a benchmark, respondents were asked to evaluate their stress levels pre-COVID-19, as well as their current work stress levels mid-pandemic. Only 15.7% of respondents indicated that their stress level was very stressful to extremely stressful prior to COVID-19. Interestingly, 70.2% of respondents indicated that their stress level was "very stressful" to "extremely stressful" at the survey time. This represents a shift from a predominantly (84.3%) low ("not stressful" and "somewhat stressful") to moderate stress level ("moderately stressful") rating and high ("very stressful") to extremely high rating ("extremely stressful") of 15.7% before COVID-19 to a predominantly high to extremely high rating of 70.2% (219 respondents) and low to a moderate rating of 29.8% during COVID response involvement.

TABLE 2RESPONDENTS' STRESS LEVELS BEFORE AND DURING COVID (N=312)

	PRE-COVID	DURING COVID	
	FREQUENCY (%)	FREQUENCY (%)	
Not stressful	28 (9.0%)	8 (2.6%)	
Somewhat stressful	106 (34.1%)	21 (6.7%)	
Moderately stressful	129 (41.3%)	64 (20.5%)	
Very stressful	40 (12.8%)	143 (45.8%)	
Extremely stressful	9 (2.9%)	76 (24.4%)	

The increase in stress is extremely telling. Both females and males presented higher levels of stress during COVID-19 compared to pre-COVID. 74.7% of respondents experienced an increase in stress levels, and 18.9% had no change in stress levels (Table 3). The magnitude of the shift in stress levels shows that the majority of respondents who experienced an increase in stress rated an increase of only one level of stress (i.e., low to somewhat, somewhat to moderate, moderate to high, or high to extremely high). Interestingly, a combined 6.4% of respondents saw a stress decrease. Perhaps this is explainable by workers feeling more fulfilled by helping people or by their COVID-related duties taking them away from normal stressful duties.

We also wanted to evaluate burnout as a response to stress and as a factor leading to career change and compassion fatigue for this group. The question was posed as to whether workers felt "burnout" in their positions because of COVID-19-related work responsibilities.

Because of burnout, 22% (70) of respondents have considered career changes. Table 3 shows the correlation between career change consideration and levels of burnout. When the level of burnout increases, more people would consider a career change. Extrapolating these results further, an image of unmanageable loss is conjured. If 22% of doctors, nurses, emergency managers, first responders, social workers, teachers, and other key professionals lost or changed careers due to burnout, the system would be incapable of rapidly replacing specially trained personnel.

TABLE 3BURNOUT LEVELS AND CONSIDERATION OF CAREER CHANGE (N=312)

	NOT CONSIDERING	NEUTRAL	CONSIDERING	TOTAL (%)
Not burnt out	37	1	1	39 (12.5%)
Somewhat burnt out	43	5	1	49 (15.7%)
Moderately burnt out	56	9	9	74 (23.7%)
Very burnt out	53	13	27	93 (29.8%)
Extremely burnt out	15	10	32	57 (18.3%)
TOTAL (%)	204 (65.4%)	38 (12.2%)	70 (22.4%)	312 (100%)

FACTORS FOR STRESS, BURNOUT, AND COMPASSION FATIGUE

The COVID-19 pandemic has undoubtedly added stress to the everyday lives of people across the globe, especially for first responders. However, other stressors can also have an increased effect when stress is heightened. Respondents were asked to identify concerns that may be factoring into their stress, burnout, and compassion fatigue levels. The most identified factor by survey respondents was having school-age children that are virtually learning from home, followed by having children and both parents work. Also, changing responsibilities or changing jobs was also identified as a significant factor. Other factors that were mentioned included family members being ill (both COVID-19 related and not), respondent or spouse having reduced work hours, and other health concerns. In a survey questionnaire (i.e., Question 13, See Appendix), respondents rated additional stress factors, among which a lot of factors are COVID-19 related, such as increased workload and health concerns of their own and of their loved ones. Overall, the highly rated factors include having school-age children and the requirement of virtual learning from home, having children and both parents work, changing jobs/responsibilities, and family members being ill. These factors align with Figley's (1995) framework of compassion fatigue, highlighting the impact of prolonged exposure to traumatic circumstances.

COPING STRATEGIES

Addressing stress, burnout, and compassion fatigue is crucial for personnel involved in COVID-19 response efforts. Our survey explored respondents' coping abilities during the pandemic, with 62.8% (194) reporting strengthened coping skills, possibly driven by a sense of fulfillment in helping others or the diversion from routine stressors. However, 7.8% indicated worsened coping abilities, underscoring the ongoing challenges.

Despite the perceived resilience in coping, only a minority (8%) of respondents sought or planned to seek support and counseling services. The majority (74%) had not sought or planned to seek support and counseling services. In addition, most respondents reported that they did not receive support and training related to stress, burnout, and compassion fatigue either before (81.3%) or during COVID (77.7%) (Table 4).

TABLE 4RECEIVED STRESS/BURNOUT/COMPASSION FATIGUE TRAINING OR SUPPORT FROM EMPLOYERS (N=310)

	PRE-COVID FREQUENCY (%)	DURING COVID FREQUENCY (%)
Yes	48 (15.5%)	57 (18.4%)
No	252 (81.3%)	241 (77.7%)
Unsure	8 (2.6%)	8 (2.6%)
Prefer not to say	2 (0.6%)	4 (1.3%)

Interestingly, we compared the stress level ratings of two groups of respondents (those who received support/training and those who did not) before and during the COVID-19 pandemic and found no difference (Table 5). The data shows that many respondents, regardless of receiving support/training, experienced high levels of stress (very or extremely stressed) during the COVID-19 pandemic. Specifically, 75.5% of respondents who received support/training felt very or extremely stressed, compared to 69.7% of those who did not receive support/training. This suggests that the support and training provided may not have been effective in significantly reducing stress levels, or that these resources were underutilized by workers as a coping mechanism. The findings indicate that the presence of support/training did not lead to a significant difference in stress levels among respondents during the pandemic. This raises questions about the effectiveness of the provided support/training or the willingness/ability of workers to utilize these resources during high-stress periods.

The final survey questions asked respondents for their suggestions on what could help offset compassion fatigue, stress, and burnout. Answers to these questions are telling and important for organizational leaders and supervisors. 35.3% (110) of respondents indicated they would benefit from extended time or even smaller segments of time off to recharge. It might be difficult for most workers who are involved with the pandemic response or any extended crisis to take time off given the "all-hands-on-deck" situation. The special training required for these positions and the smaller population of crisis responders compared with other professions also lead to more difficulty taking breaks or vacations.

Crisis and trauma response can be a thankless job. First responders often go unnoticed and are taken for granted because they help keep things going behind

TABLE 5IMPACT OF SUPPORT/TRAINING ON RESPONDENTS' STRESS LEVELS (N=298)

	RECEIVING SUPPORT/TRAINING (N=57)		NOT RECEIVING SUPPORT/ TRAINING (N=241)	
	PRE-COVID	DURING COVID	PRE-COVID	DURING COVID
Not stressed	4 (7%)	3 (5.3%)	23 (9.5%)	5 (2.1%)
Somewhat stressed	27 (47.4%)	1 (1.8%)	72 (29.9%)	19 (7.9%)
Moderately stressed	18 (31.6%)	10 (17.5%)	108 (44.8%)	49 (20.3%)
Very stressed	6 (10.5%)	29 (50.9%)	32 (13.3%)	109 (45.2%)
Extremely stressed	2 (3.5%)	14 (24.6%)	6 (2.5%)	59 (24.5%)

the scenes. 24.4% (76) of the respondents said that they would like to have some kind of recognition from their company or its organizational leaders. Recognition of this type can cost next to nothing, other than the investment of time, and should be a straightforward thing to do. Given that almost one in four workers mentioned this recognition component, the implementation should be taken very seriously and done as often as possible in a genuine manner. A potential negative to recognize is that some workers may feel slighted if not mentioned or even included with others. Additionally, healthcare workers, first responders, and public health workers may all feel varying levels of importance and responsibility in their response, leading to strife with joint recognition events.

Given prior survey data regarding a career change, another prominent answer (17.6%) suggested that some respondents are changing jobs and/or responsibilities to mitigate compassion fatigue. This may suggest that perhaps more people than identified are considering changing careers to mitigate their stress levels. Is the suggestion geared toward lessening the workload in their current positions? Further investigation is needed to vet this question fully.

DISCUSSION AND CONCLUSION

The study delves into the critical role of emergency management professionals, particularly within local government settings, emphasizing their pivotal

function as frontline responders in times of crisis. It was performed to identify stress levels, stress factors, burnout, and compassion fatigue rates among emergency management professionals as related to the COVID-19 pandemic. First, it identified significant stress level increases related to COVID-19 response among crisis management personnel. It also identified that additional stress factors exist and could be exacerbating burnout and compassion fatigue amongst this population.

Second, COVID-19 was found to have an impact on burnout rates. A concerning 22% of surveyed workers expressed that they may change their careers due to stress and compassion fatigue. This signals potential workforce issues that may escalate as the pandemic response continues. Third, the most desired coping mechanisms for compassion fatigue and stress related to COVID-19 include extended time off or small breaks to recharge, recognition from the company or organization, and potentially changing jobs or job responsibilities.

These findings highlight the profound impact of the COVID-19 pandemic on the mental health and well-being of emergency management professionals. They connect with the existing literature on occupational stress, burnout, and compassion fatigue, providing deeper insights into the challenges faced by these professionals and the implications for local government human resources management. Local governments, as highlighted by Howell (2020), are central actors in emergency management, serving as the interface between communities and higher levels of government. They are responsible for assessing threats, mobilizing resources, and safeguarding the well-being of citizens, highlighting the significance of robust local emergency management programs. The insights of this research have profound implications for policymaking within local government settings to support these critical workers.

PREVALENCE OF OCCUPATIONAL STRESS, BURNOUT, AND COMPASSION FATIGUE

The data reveals a dramatic increase in stress levels among emergency managers and first responders during the COVID-19 pandemic compared to pre-pandemic times. This shift from predominantly low to moderate stress levels to high and extremely high levels is a clear indication of the immense pressure these professionals have faced. The data aligns with existing literature indicating that prolonged exposure to high-stress environments, like those experienced during the pandemic, can lead to severe mental health outcomes, including burnout and compassion fatigue (Back et al., 2014; Kaplan et al., 2017). The survey findings highlight a concerning level of burnout among

respondents, with more than half indicating they felt "very burnt out" or "extremely burnt out." This burnout has severe implications for workforce stability, as demonstrated by 22% of respondents considering career changes. The correlation between high levels of burnout and the consideration of leaving their profession underscores the urgent need for interventions to prevent a potential drain of experienced personnel, which could significantly impair emergency response capabilities.

The COVID-19 pandemic intensified the existing challenges faced by emergency managers and first responders. This study found that the pandemic not only increased stress levels but also had a significant impact on mental health, with respondents experiencing higher rates of PTSD, depression, and insomnia, consistent with existing research (Berner & Hetzel-Riggin 2024; Hendrickson et al., 2022). The infection rates among first responders and their families further compounded these issues, highlighting the need for robust support systems to protect the mental health of these professionals.

COPING STRATEGIES

Effective coping strategies are crucial for mitigating the adverse effects of stress, burnout, and compassion fatigue. The literature differentiates between adaptive and nonadaptive coping strategies (Díaz-Tamayo et al., 2022). This study found that, during the pandemic, first responders employed a mix of adaptive strategies, such as seeking emotional support and practicing self-care, and nonadaptive strategies, such as emotional suppression. This dual approach is consistent with the findings of Arble et al. (2018) and Smeltzer et al. (2022), indicating the need for more structured and effective coping mechanisms.

However, it is important to highlight that only a small group of respondents have sought support and training. Most respondents have not planned to seek support and training regarding their stress, burnout, and compassion fatigue, which reflect a stigma of seeking mental health care among first responders. Scholars have found that this stigma might hinder individuals from acknowledging mental health issues and participating in mental health services (Haugen et al., 2017). In addition, most of the respondents reported that they had not received any mental health-related support and training before and during the COVID-19 pandemic, reflecting the stigma at both the individual and organizational levels. This raises concerns about the efficacy and accessibility of these resources, suggesting that existing support systems may

need to be re-evaluated and enhanced to better meet the needs of emergency managers and first responders during crises.

In considering stress, burnout, and compassion fatigue with a global pandemic or any long-running critical response situation, a person's ability to cope with the event is also crucially important. In contrast to stress, burnout, and compassion fatigue response data, respondents indicated they feel they have a strong ability to cope with the stress related to COVID-19. This might be explained by the respondents' affective motives that emphasize their capacity for empathy, altruism, and selflessness (Stefurak et al., 2020). Although these respondents might not have opportunities to act out their affective public service values in their work, their public service motivation has the potential to be a significant factor in coping with mental and emotional issues related to work.

These findings underscore the need for proactive measures to support the mental health and well-being of crisis responders. While many respondents expressed a strong ability to cope with stress, there is a clear gap in terms of support and training. The stigma surrounding mental health care, and the lack of organizational initiatives, exacerbate the challenges faced by first responders. Addressing these issues requires a multifaceted approach including recognition from organizational leaders, access to counseling and support services, and training on stress management and coping strategies. Furthermore, the study highlights the importance of integrating emotional intelligence and empathy into public service organizations. Fostering a supportive work environment and promoting social support can mitigate the negative impacts of stress and burnout, enhancing both individual resilience and organizational effectiveness. By prioritizing the well-being of emergency management professionals, local governments can ensure the continuity of essential services and uphold their commitment to serving the public interest.

IMPLICATIONS FOR LOCAL GOVERNMENT HUMAN RESOURCE MANAGEMENT

The findings of this study have several implications for local government human resource management. First, there is a clear need for comprehensive mental health support systems tailored to the unique challenges faced by emergency managers and first responders. Employers must prioritize regular and effective stress management training and provide accessible mental health resources. First responders are a highly motivated and skilled workforce. During the COVID-19 pandemic, all public servants have experienced different levels

of stress, burnout, and compassion fatigue. The retention of individuals in public service work in a stressful and uncertain environment is extremely challenging. The identification of their occupation-related stress, burnout, and compassion fatigue, as well as coping strategies suggests that local governments need to understand the needs of employees and invest the time and resources necessary to develop a cadre of committed and talented employees to ensure public service delivery and local government managers' performance (Bolman & Deal, 2013). The suggested coping skills and organizational approaches are needed for professional emergency managers and general local public managers.

Second, it is essential to foster a supportive organizational culture that promotes adaptive coping strategies and reduces the stigma around seeking mental health support. The survey results demonstrate the need for local governmental organizations to pay attention to effective ways to improve first responders' affective motivations through organizational recognition and intervention programs, which resonates with the existing studies. For example, studies have found that programs and strategies to educate employees about stress and coping strategies are the most effective type of organizational intervention (Richardson & Rothstein, 2008; Yu, 2009). Public organizations can consciously foster social support, create a positive work environment, and provide stress management programs and strategies. Peer support programs and robust counseling services could play a critical role in this regard. More importantly, this research reveals the importance of integrating feeling, caring, and emotion in the public service sector and local governments addressing both individual and organizational stigma and mitigating the negative consequences of public servants' feelings and mental health issues.

Lastly, considering the potential for high turnover due to burnout, local governments should explore strategies to enhance job satisfaction and retention among emergency managers and first responders. This is crucial not only for maintaining a stable and experienced workforce but also for ensuring the long-term sustainability and effectiveness of emergency services. This could include career development opportunities, recognition programs, and efforts to balance work-life demands more effectively. Addressing the high turnover potential due to burnout among emergency managers and first responders requires a multifaceted approach. Local governments must implement strategies that enhance job satisfaction and retention, including career development opportunities, recognition programs, and efforts to balance

work-life demands. By investing in the well-being and professional growth of emergency personnel, local governments can maintain a stable, experienced, and motivated workforce. This not only benefits the individuals involved but also ensures the continued effectiveness and resilience of emergency services in protecting and serving communities.

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APPENDIX

SURVEY QUESTIONNAIRE

- 1. What type of work do you do?
 - Emergency management
 - First responder
 - Health care
 - Public health
 - Other
- 2. What is your gender?
 - Female
 - Male
 - Other
 - Prefer not to say
- 3. Which age range best describes you?
 - Under 20
 - 20-29
 - 30-39
 - 40-49
 - 50-59
 - 60-69
 - 70+
 - I prefer not to say
- 4. What is your current education level?
 - Student
 - Bachelor's degree
 - Master's degree
 - Ph.D. or equivalent
 - No degree
- 5. How would you describe your current career level?
 - Student
 - Entry-level
 - Mid-career
 - Late-career
- 6. How would you describe your current position level?
 - Student
 - Entry-level (planner/specialist)
 - Mid-level (supervisor/asst. EMC/deputy EMC)
 - Director-level/EMC/city management

- 7. How long have you been involved with COVID-19 (response, recovery, testing, etc.)
 - Before January 1, 2020
 - Since January 1, 2020 to March 1, 2020 (7-9 months)
 - Since March 1, 2020 to May, 2020 (5-6 months)
 - Since May 1, 2020 to July 1, 2020 (3-4 months)
 - After July 1st, 2020 (within the last 2 months)
- 8. Have you tested positive for COVID-19?
 - Yes
 - No
 - Prefer not to say
- 9. Do you have a family member, close friend, or co-worker that has tested positive for COVID-19?
 - Yes
 - No
 - Prefer not to say
- 10. I would rate my work stress level prior to COVID-19 as:
 - Not stressful
 - Somewhat stressful
 - Moderately stressful
 - Very stressful
 - Extremely stressful
- 11. I would rate work stress level at the time of this survey specifically considering my involvement with COVID-19 operations as:
 - Not stressful
 - Somewhat stressful
 - Moderately stressful
 - Very stressful
 - Extremely stressful
- 12. I feel burnt out in my current position as a result of COVID-19 work-related responsibilities (response, recovery, care, testing, etc.):
 - Not burnt out
 - Somewhat burnt out
 - Moderately burnt out
 - Very burnt out
 - Extremely burnt out
- 13. What additional concerns do you have that might affect your stress levels?
 - Changing jobs/responsibilities
 - Family member is ill (COVID-19 related)
 - Family member is ill (not COVID-19 related)
 - Have children and both parents work

- School-age children/virtual learning from home
- You/spouse laid-off or work hours reduced as a result
- Additional emergency situations (e.g., wildfires)
- Additional job responsibilities as a result of COVID-19
- Being at home/teleworking concerns
- Death of family member
- Divorce/separation/custody issues
- Face masks
- Family/household changes
- Financial concerns
- Health concerns/personal
- Media/politics
- Other family member's job loss
- School/higher education
- Work concerns (overload, resources, etc.)
- No additional stress factors
- 14. I have considered changing careers due to the stress and compassion fatigue experienced in my position related to COVID-19?
 - Considering
 - Neutral
 - Not considering
- 15. I have sought or plan to seek support/counseling due to stress/burnout/compassion fatigue from COVID-19?
 - Yes
 - No
 - Unsure
 - Prefer not to say
- 16. Did you receive compassion fatigue, burnout, or stress training or support from your employer or a private entity prior to the occurrence of COVID-19?
 - Yes
 - No
 - Unsure
 - Prefer not to say
- 17. Did you receive compassion fatigue, burnout, or stress training or support from your employer or a private entity during the occurrence of COVID-19?
 - Yes
 - No
 - Unsure
 - Prefer not to say

18. I would rate my ability to cope with stress, burnout, and compassion fatigue related to COVID-19 as:

- Extremely weak/worsening
- Weak/worsening
- About the same/neutral
- Strong/strengthening
- Extremely strong/strengthening

19. What do you feel could help offset compassion fatigue in your job (you may choose more than one answer)? (open ended)

ENDNOTES

¹ The survey was conducted in two phases. The first phase was implemented from August 2020 to November 2020, focusing on collecting initial data. A second phase was scheduled for August 2024 to gather additional data for comparative and longitudinal analysis. The data presented in this article pertains to the findings from the first phase. The ongoing study is currently undergoing review by the University of Maryland, Baltimore County's Institutional Review Board.

REFERENCES

Antony, J., Brar, R., Khan, P. A., Ghassemi, M., Nincic, V., Sharpe, J. P., Straus, S. E., & Tricco, A. C. (2020). Interventions for the prevention and management of occupational stress injury in first responders: A rapid overview of reviews. *Systematic Reviews*, 9(1),1-20. https://doi.org/10.1186/s13643-020-01367-w

Arble, E., Daugherty, A. M., & Arnetz, B. B. (2018). Models of first responder coping: Police officers as a unique population. *Stress and Health: Journal of the International Society for the Investigation of Stress*, 34(5), 612–621. https://doi.org/10.1002/smi.2821

Ayres, R. M. (1990). *Preventing law enforcement stress: The organization's role*. National Institute of Justice. https://www.ojp.gov/ncjrs/virtual-library/abstracts/preventing-law-enforcement-stress-organizations-role-0

Back, A. L., Deignan, P. F., & Potter, P. A. (2014). Compassion, compassion fatigue, and burnout: Key insights for oncology professionals. *American Society of Clinical Oncology Educational Book*, 34, e454–e459. https://doi.org/10.14694/EdBook_AM.2014.34.e454

Benincasa, V., Passannante, M., Pierrini, F., Carpinelli, L., Moccia, G., Marinaci, T., Capunzo, M., Pironti, C., Genovese, A., Savarese, G., De Caro, F., & Motta, O. (2022). Burnout and psychological vulnerability in first responders: Monitoring depersonalization and phobic anxiety during the COVID-19 pandemic. *International Journal of Environmental Research and Public Health*, *19*(5), 1-9. https://doi.org/10.3390/ijerph19052794

Berner, M., & Hetzel-Riggin, M. D. (2024). Do negative cognitions influence first responders' coping and attitudes toward others? *Traumatology.* Available online at https://doi.org/10.1037/trm0000506

Bolman, L. G., & Deal, T. E. (2013). Artistry, choice, & leadership: Reframing organizations (5th ed.). Jossey-Bass.

Bride, B. E., Radey, M., & Figley, C. R. (2007). Measuring compassion fatigue. *Clinical Social Work Journal*, 35(3), 155–163. https://doi.org/10.1007/s10615-007-0091-7

Casey, E. (2019, February 9). Community, police learn to cope together during listening circle. The Shepherd Express. https://shepherdexpress.com/culture/happening-now/community-police-learn-to-cope-together-during-listening-cir/

Choi, J., & Wehde, W. (2020). Trust in emergency management authorities and individual emergency preparedness for tornadoes. *Risk, Hazards & Crisis in Public Policy*, 11(1), 12–34. https://doi.org/10.1002/rhc3.12185

Díaz-Tamayo, A. M., Escobar-Morantes, J. R., & García-Perdomo, H. A. (2022). Coping strategies for exposure to trauma situations in first responders: A systematic review. *Prehospital and Disaster Medicine*, *37*(6), 810–818. https://doi.org/10.1017/S1049023X22001479

Donovan, N. (2022). Peer support facilitates post-traumatic growth in first responders: A literature review. *Trauma*, 24(4), 277–285. https://doi.org/10.1177/14604086221079441

Figley, C. R. (1995). Compassion fatigue as secondary traumatic stress disorder: An overview. In C. R. Figley (Ed.), *Compassion fatigue: Coping with secondary traumatic stress disorder in those who threaten the traumatized* (pp. 1–20). Routledge.

Goldbaum, E. (2012, July 9). *Police officer stress creates significant health risks compared to general population; study finds.* University at Buffalo. https://www.buffalo.edu/news/releases/2012/07/13532.html

Haugen, P. T., McCrillis, A. M., Smid, G. E., & Nijdam, M. J. (2017). Mental health stigma and barriers to mental health care for first responders: A systematic review and meta-analysis. *Journal of Psychiatric Research*, 94, 218–229. https://doi.org/10.1016/j.jpsychires.2017.08.001

Hendrickson, R. C., Slevin, R. A., Hoerster, K. D., Chang, B. P., Sano, E., McCall, C. A., Monty, G. R., Thomas, R. G., & Raskind, M. A. (2022). The impact of the COVID-19 pandemic on mental health, occupational functioning, and professional retention among health care workers and first responders. *Journal of General Internal Medicine*, *37*(2), 397–408. https://doi.org/10.1007/s11606-021-07252-z

Henstra, D. (2010). Evaluating local government emergency management programs: What framework should public managers adopt? *Public Administration Review*, 70(2), 236–246. https://doi.org/10.1111/j.1540-6210.2010.02130.x

Howell, P. (2020, May 1). A whole-of-government approach: Embedding disaster resilience into municipal operations. *PM Magazine*. https://icma.org/articles/pm-magazine/whole-government-approach-embedding-disaster-resilience-municipal-operations

Iwasaki, Y., Mannell, R. C., Smale, B. J. A., & Butcher, J. (2005). Contributions of leisure participation in predicting stress coping and health among police and emergency response services workers. *Journal of Health Psychology*, *10*(1), 79–99. https://doi.org/10.1177/1359105305048557

Kaplan, J. B., Bergman, A. L., Christopher, M., Bowen, S., & Hunsinger, M. (2017). Role of resilience in mindfulness training for first responders. *Mindfulness*, 8(5), 1373–1380. https://doi.org/10.1007/s12671-017-0713-2

Lazarus, R., & Folkman, S. (1984). *Stress and cognitive appraisal*. Springer Publishing Company: New York .Leiter, M. P., & Maslach, C. (1999). Six areas of worklife: A model of the organizational context of burnout. *Journal of Health and Human Services Administration*, 21(4), 472–489. https://www.jstor.org/stable/25780925

Lewis-Schroeder, N. F., Kieran, K., Murphy, B. L., Wolff, J. D., Robinson, M. A., & Kaufman, M. L. (2018). Conceptualization, Assessment, and Treatment of Traumatic Stress in First

Responders: A Review of Critical Issues. *Harvard Review of Psychiatry*, 26(4), 216–227. https://doi.org/10.1097/HRP.000000000000176

Magnavita, N., Capitanelli, I., Garbarino, S., & Pira, E. (2018). Work-related stress as a cardiovascular risk factor in police officers: A systematic review of evidence. *International Archives of Occupational and Environmental Health*, 91(4), 377–389. https://doi.org/10.1007/s00420-018-1290-y

Miller, A., & Brown, L. (2021). Coping mechanism and professional quality of life in Northeast Texas EMS personnel during the COVID-19-19 pandemic: An exploratory study. *Australasian Journal of Paramedicine*, *18*, 1–8. https://doi.org/10.33151/ajp.18.925

Moskola, V., Sándor, Á. D., Susánszky, É., Székely, A., Hornyák, I., Ozsvárt, B., Néninger, T., & Balogh, Z. (2021). Examination of coping strategies among on-site paramedics. *European Journal of Mental Health*, *16*(2), 184–195. https://ejmh.semmelweis.hu/index.php/ejmh/article/view/229

Neville, K., & Cole, D. A. (2013). The relationships among health promotion behaviors, compassion fatigue, burnout, and compassion satisfaction in nurses practicing in a community medical center. *Journal of Nursing Administration*, 43(6), 348–354. https://doi.org/10.1097/nna.0b013e3182942c23

Ogińiska-Bulik, N., & Langer, I. (2007). Type D personality, coping with stress and intensity of PTSD symptoms in firefighters. *Medycyna Pracy*, 58(4), 307–316. https://pubmed.ncbi.nlm.nih. gov/18041200/

Papazoglou, K., & Blumberg, D. M. (2020). Power: Police officer wellness, ethics, and resilience. Elsevier.

Piñar-Navarro, E., Cañadas-De la Fuente, G. A., González-Jiménez, E., & Hueso-Montoro, C. (2020). Anxiety and strategies for coping with stress used by first responders and out-of-hospital emergency health care staff before the COVID-19 pandemic. *Emergencias: Revista De La Sociedad Espanola De Medicina De Emergencias*, 32(5), 371–373. https://pubmed.ncbi.nlm.nih.gov/33006842/

Pines, A. M., & Aronson, E. (1988). Career burnout: Causes and cures. Free Press.

Prezant, D. J., Zeig-Owens, R., Schwartz, T., Liu, Y., Hurwitz, K., Beecher, S., & Weiden, M. D. (2020). Medical leave associated with COVID-19 among emergency medical system responders and firefighters in New York City. *JAMA Network Open*, *3*(7), e2016094. https://doi.org/10.1001/jamanetworkopen.2020.16094

Richardson, K. M., & Rothstein, H. R. (2008). Effects of occupational stress management intervention programs: A meta-analysis. *Journal of Occupational Health Psychology*, *13*(1), 69–93. https://doi.org/10.1037/1076-8998.13.1.69

Sattler, D. N., Boyd, B., & Kirsch, J. (2014). Trauma-exposed firefighters: Relationships among posttraumatic growth, posttraumatic stress, resource availability, coping and critical incident stress debriefing experience. *Stress and Health: Journal of the International Society for the Investigation of Stress*, 30(5), 356–365. https://doi.org/10.1002/smi.2608

Schneider, S. K. (1995). Flirting with disaster: Public management in crisis situations. Sharpe.

Siegel, T. R., & Nagengast, A. K. (2019). Mitigating burnout. Surgical Clinics of North America, 99(5), 1029-1035. https://doi.org/10.1016/j.suc.2019.06.015

Smeltzer, S. C., Copel, L. C., Bradley, P. K., Maldonado, L. T., Byrne, C. D., Durning, J. D., Havens, D. S., Brom, H., Mensinger, J. L., & Yost, J. (2022). Vulnerability, loss, and coping experiences of

health care workers and first responders during the COVID-19 pandemic: A qualitative study. *International Journal of Qualitative Studies on Health and Well-Being*, *17*(1), 1-17. https://doi.org/10.1080/17482631.2022.2066254

Smirnova, M. O., Meckes, S. J., & Lancaster, C. L. (2021). The protective effects of perceived cohesion on the mental health of first responders. *Psychological Services*, *19*(S1), 23-33.. https://doi.org/10.1037/ser0000580

Stefurak, T., Morgan, R., & Johnson, R. B. (2020). The relationship of public service motivation to job satisfaction and job performance of emergency medical services professionals. *Public Personnel Management*, 49(4), 590–616. https://doi.org/10.1177/0091026020917695

Vaulerin, J., d'Arripe-Longueville, F., Emile, M., & Colson, S. S. (2016). Physical exercise and burnout facets predict injuries in a population-based sample of French career firefighters. *Applied Ergonomics*, *54*, 131–135. https://doi.org/10.1016/j.apergo.2015.12.007

Vick, H. M. (2020). Government disaster assistance: An exploration of expectations (Publication no. 28257428) [Doctoral dissertation, Oklahoma State University]. ProQuest Dissertations and These Global.

Vujanovic, A. A., Lebeaut, A., & Leonard, S. (2021). Exploring the impact of the COVID-19 pandemic on the mental health of first responders. *Cognitive Behaviour Therapy*, 50(4), 320–335. https://doi.org/10.1080/16506073.2021.1874506

Wirth, M., Vena, J. E., Smith, E. K., Bauer, S. E., Violanti, J., & Burch, J. (2013). The epidemiology of cancer among police officers. *American Journal of Industrial Medicine*, 56(4), 439–453. https://doi.org/10.1002/ajim.22145

Witt, M., Stelcer, B., & Czarnecka-Iwańczuk, M. (2018). Stress coping styles in firemen exposed to severe stress. *Psychiatria Polska*, *52*(3), 543–555. https://doi.org/10.12740/PP/73837

Yang, S.-K., & Ha, Y. (2019). Predicting posttraumatic growth among firefighters: The role of deliberate rumination and problem-focused coping. *International Journal of Environmental Research and Public Health*, 16(20), 1-10. https://doi.org/10.3390/ijerph16203879

Yu, M.-C. (2009). Employees' perception of organizational change: The mediating effects of stress management strategies. *Public Personnel Management*, 38(1), 17–32. https://doi.org/10.1177/009102600903800102