

How Do Emergency Medical Service Workers Cope with Daily Stressors?

Bryce Hruska and Marley S. Barduhn

The COVID-19 pandemic has underscored the significant mental health burden experienced by emergency medical service (EMS) workers due to the taxing experiences that accompany providing patient care. Indeed, EMS workers face triple the risk for significant mental health problems like depression and posttraumatic stress disorder (PTSD) compared to the general population.^{1,2} To design effective intervention efforts, we need a better understanding of the specific challenges EMS workers encounter each day on the job that lead to mental health risk, as well as the protective behaviors that EMS workers employ to manage these challenges.

This brief summarizes the results of our recently published study³ in which we surveyed EMS personnel for eight consecutive days to better understand how their mental health symptoms relate to daily occupational stressors. These stressors can take the form of routine work demands, critical incidents involving serious harm or death, and social conflicts. We also examined whether daily mental health symptoms may be reduced through protective behaviors in the form of recovery activities (e.g., exercising, socializing with other people) and finding meaning in the day's challenges.

Stressors Are Common and Tax Mental Health Every Day

Over the course of the study's eight days, workers experienced at least two occupational stressors per shift. The most common stressors were work demands such as responding to an unwarranted call (e.g., a call was placed for an ambulance transport, but may not have been necessary upon arrival) or experiencing a high call-volume shift.

During the study, over two-thirds of the EMS workers surveyed responded to at least one critical event – which translates to roughly 29 critical events per year. While relatively infrequent, social conflicts were pervasive; approximately 80% of the workers surveyed reported at least one conflict with a coworker, supervisor, or significant other.

Together, these occupational stressors negatively impacted mental health each day that they occurred. Each additional work demand or critical event that an EMS worker encountered on a given workday was associated with a 5% increase in their PTSD symptom severity levels that day, while each social conflict was associated with a 12% increase in their depression symptom severity levels.

KEY FINDINGS

- EMS workers experience a diverse array of occupational stressors each day.
- These stressors are associated with an elevation in mental health symptoms each day that they occur.
- Recovery activities (like exercising or socializing with other people) and looking for meaning in the day's stressors may protect mental health.

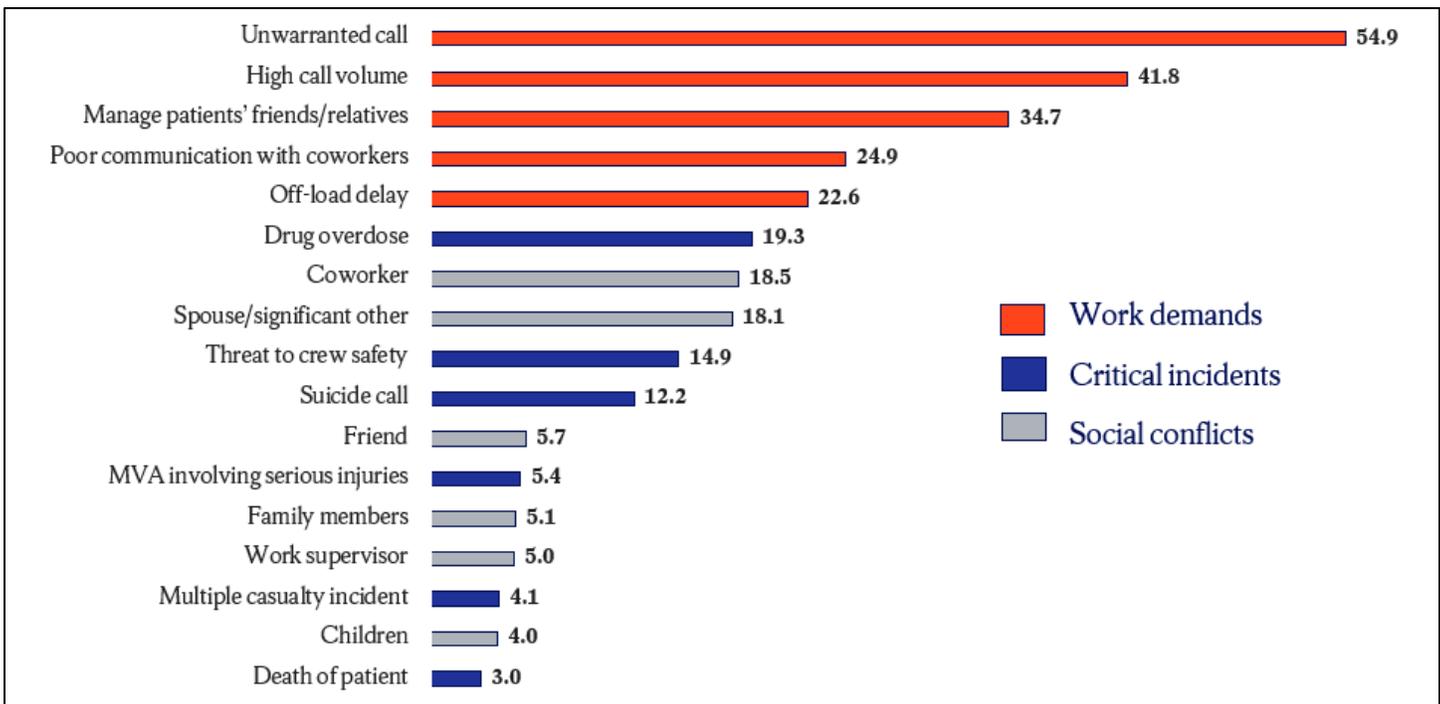


Figure 1: Percentage of Days where EMS Workers Experienced Work Demands, Critical Incidents, and Social Conflicts

Data Source: Estimates are from [our published study](#). N=79. Data were collected in 2019.

Recovery Activities and Finding Meaning in the Day’s Stressors Protect Mental Health

On any given workday, EMS workers engaged in approximately three recovery activities during non-work hours. The most common activities included “visiting with friends and family,” “eating a meal with others,” and “spending quiet time alone.”

These activities had a beneficial impact on mental health: each additional recovery activity in which a worker engaged was associated with a 5% decrease in their depression symptom severity levels that day. The social nature of the reported recovery activities is notable, given that healthy relationships can alleviate the negative impact of stress on mental health by assisting with coping efforts and helping to reframe the day’s stressors.

Perhaps demonstrating this latter effect, we also found that EMS workers who looked for lessons to learn from the day’s challenges experienced a 3% decrease in their daily depression symptoms.

Recommendations for Practices to Reduce EMS Worker Stress

Collectively, these findings underscore the regularity with which EMS workers encounter various challenges that can erode mental health. Many of the most common stressors that EMS workers reported are features of the job that cannot be avoided.

However, the findings also highlight several actionable strategies that build upon the protective behaviors in which workers naturally engage. It may be possible to make some events less stressful. For instance:

- **Developing or refining communications strategies** may be helpful for alleviating the stress associated with managing patients’ family and friends, as well as working with coworkers.
- **Recognizing conflicts as an opportunity for learning and growing** may be a useful tactic for effectively resolving the situation with fewer negative mental health effects.
- **Taking time to recharge after a particularly demanding shift** offers an opportunity to let emotions

cool. For example, when EMS workers respond to a critical event, scheduled downtime may offer an opportunity for recovery and processing of the day's events.⁴

Data and Methods

EMS workers at American Medical Response in Syracuse, NY completed eight daily surveys in 2019. Multilevel regression models were used to examine how daily fluctuations in occupational stressors, social conflicts, recovery activities, and finding opportunities for growth corresponded with daily fluctuations in mental health symptoms (depression and PTSD). For additional details, please see Hruska & Barduhn (2021).

References

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Acknowledgments

Funding for this project was provided by professional development funds from the David B. Falk College of Sport and Human Dynamics. The author thanks Nicole Replogle and Shannon Monnat for edits on a previous version of this brief.

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