The paramedic (let’s call her Sara) had served with a rural Emergency Medical Service (EMS) department for more than a decade but nothing prepared her for what she was about to see in the next few moments. As her paramedic unit pulled up on the scene of a multicasualty traffic accident, she could see the volunteer firefighters extricating one of the victims from his pickup truck, which was still partially engulfed in fire. To her surprise the victim, who obviously had sustained severe burns, emerged from the vehicle choking and bent over but alive. Astonished, because of the severity of his burns, she turned to her partner and asked, “Is he alive?”

The victim overheard her query and responded, “Yes, I’m alive.” Smoke seemed to billow out of his mouth. Sara could see the desperation and pain in the burn victim’s face and knew from her years of EMS experience that he would probably not survive. She helped to treat and stabilize his burn injuries and then transported him to the nearest trauma center. Later that shift, she learned that, as both she and her paramedic partner had expected, the victim died shortly after admission.

Sara knew that she and her partner had done everything they possibly could, but the man’s suffering and death still bothered her. She tried to put the victim’s face and anguished cries of pain out of her mind. For a time this seemed to work—but then the nightmares began. The nightmares were almost exact replays of the traumatic incident. Then her nightmares changed and became even more disturbing—now her adolescent son’s face was transposed on that of the dead man’s. For the first time in her career, Sara began to dread her EMS shift. Her sleep became progressively more disturbed and fitful. She began to isolate herself from friends and family and drifted into a state of clinical depression.

Sources of stress
Several of her co-workers noticed the changes in Sara’s behavior and mood and suggested that she see a mental health professional for symptoms that seemed consistent with post-traumatic stress disorder (PTSD). PTSD is an occupational hazard for emergency medical services personnel, who are routinely and frequently exposed to their patients’ trauma and suffering. This type of traumatic exposure is sometimes referred to as vicarious, or secondary, traumatization. EMS personnel also suffer primary traumatic exposures, which are exposures to potentially dangerous situations in which they risk personal injury or even death, for example at a multiple casualty motor vehicle accident on a major highway or at the scene of a recent homicide.

Remarkably, considering the frequency, nature, and intensity of their duty-related traumatic exposures, EMS personnel have relatively low rates of PTSD. Most studies have reported PTSD prevalences among them of 15 to 20 percent. A number of factors probably account for their resiliency, but the bonding and social support provided by their co-workers is perhaps most important.

It would be a mistake and an oversimplification, however, to think that all EMS job-related stress is due to traumatic incident exposures. In
fact, prehospital emergency medical service personnel, which includes emergency medical technicians (EMTs), paramedics, and other first responders, complain of a wide variety of sources of occupational stress. In many urban settings, professional EMS personnel work 24-hour shifts and suffer the stress and strain associated with shift work. In a large-scale published survey of Washington State firefighters, EMTs, and paramedics, the job stressor that was identified as the most problematic was that of disturbed sleep, including both poor quality sleep and too little sleep. It is somewhat ironic, given this complaint, that many EMS personnel actually prefer assignments at busy stations and fail to recognize the need for rest or reassignment. Another source of stress in EMS is the rigid and authoritarian organizational structure found in most EMS organizations. Poor leadership—especially a noncommunicative and nonempathic style—can aggravate stress and harm morale.

Additional sources of stress in EMS workers are their life and death responsibilities and the time urgency associated with their work. Within moments of arriving on scene, EMS workers often need to assess sick or injured patients and provide care. The consequences of an inaccurate assessment or delayed treatment can be dire.

Mundane and often routine non-incident stressors such as work scheduling, needless paperwork, and bureaucracy can add to the stress burden. In addition, many EMS workers complain about the relatively low wages and lack of status and respect for their work. At times these routine work stressors and the various sources of stress associated with the emergency nature of their work combine to result in burn-out. Burnt-out EMS workers lose interest in their work, lack energy, and have difficulty feeling empathy for their patients. Burn-out, too, is often associated with physical stress-related symptoms such as muscle tension and fatigue.

**Building resiliency**

Resiliency training or stress management in EMS involves a continuum of services and options that range from self-care to the provision of professional mental health services and even, at times, anti-depressant medication. A comprehensive resiliency program needs to address both personal and organizational factors. Stress management trainings should focus on a variety of resiliency-promoting behaviors such as a good diet, regular exercise, and training in appropriate relaxation skills. Perhaps more importantly organizations need to adopt policies and procedures that support their EMS personnel and reduce unnecessary sources of organizational stress. One successful organizational approach to increasing resilience in the fire service has been the development and adoption of comprehensive wellness-fitness programs that include nutrition education, and a fitness training component with the provision of on-site aerobic and strength-training equipment.

Another organizational approach to workforce resilience is the promotion and training of only the best and most effective leaders. Ample research shows that line workers’ relationship with their immediate superior is most strongly linked to job satisfaction and—not surprisingly—fewer symptoms of stress.

On an individual personal level EMS workers need to take some responsibility for their mental and physical health—including their off-shift health habits. To address their likely sleep deprivation they need to make an effort on their off-shift days to get adequate rest. Most EMS personnel could also benefit from learning and practicing some form of relaxation. Even abbreviated relaxation techniques can be helpful in countering the acute and chronic stressors associated with their occupation.

Sara, by the way, followed the advice of her co-workers and sought some counseling. She was reluctant at first but soon learned from her therapist that she was not crazy. Her therapist also recommended an anti-depressant along with the ongoing counseling. Sara made excellent progress over a period of just a few months—her sleep improved, her spirits lifted, and she decided to rededicate herself to her work as a medic.

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**Resources**

NIOSH Fact sheet—Traumatic Incident Stress. [www.cdc.gov/niosh/uni-trinstructs.html](http://www.cdc.gov/niosh/uni-trinstructs.html).

*For other resources related to this article, please see the online version at [www.nwpublichealth.org](http://www.nwpublichealth.org).*