Supporting Healthcare Professionals in Times of Disaster: Reflections on "At-Risk Employees"

HIGHLIGHT

What is unique about the pandemic and its contribution to our country's actual and perceived risk? Brian W. Flynn, Ed.D., RADM, USPHS, Ret., Associate Director for Health Systems, Center for the Study of Traumatic Stress, Adjunct Professor, and Joshua C. Morganstein, MD, CAPT, USPHS, Associate Director Center for the Study of Traumatic Stress, Associate Professor and Assistant Chair, both from the Department of Psychiatry, Uniformed Services University, offer a unique view on risk, how it may be manifested in this unprecedented time, and important steps in risk mitigation to enhance sustainment. Note: In this article, we use the term "healthcare worker" to refer to those involved in providing behavioral and physical healthcare. As this and other recent disasters have shown, support staff (e.g., housekeeping, logistics, maintenance, information technology, nutrition) are also being impacted in many of the same ways, and it is critical that they be included in organization-wide resilience-building efforts.

While this issue of *The Exchange* focuses on acute and chronic stressors, identifying at-risk employees, and fostering resilience, it is important to understand these are somewhat artificial distinctions; they are actually interrelated concepts. Though it is helpful to segment them for the purposes of highlighting key factors in each, it is important to understand how they are related in order to craft a comprehensive understanding and strategy to optimize healthcare worker mental health. This topic is extremely important and often misunderstood. The most productive way to *identify at-risk* populations is to "shake up" our preconceived notions of what this phrase means and provide some alternative ways of thinking about risk in healthcare. It's also important to remember that following exposure to disaster events, such as COVID-19, the most effective way to improve well-being, reduce distress, and optimize functioning is by enhancing the five "essential elements:" sense of safety, calming, social connectedness, self- and community-efficacy, and hope in the future. Throughout this article, we refer to these "essential elements" as we discuss aspects of risk and how best to identify and mitigate it.

What's Different about COVID-19?

COVID-19 is different than other types of disasters in many ways, including the very nature of the threat, as well as its scope, magnitude, duration, and unprecedented level of uncertainty.

Healthcare workers are used to treating wounds associated with things like tornado debris, infections associated with floodwaters, and gunshot wounds. But, COVID-19 is different. Healthcare workers are dealing with a novel virus that

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is hard to predict, has a relatively high mortality rate, causes significant illness, presents a significant risk of contagion (including to them and their coworkers), and for which there is no cure or vaccine.

Most disasters have a clear beginning and recovery phases. During "blue sky" periods, we focus on mitigation and preparedness efforts. We know what hazards to expect depending on where we live, and we can prepare and respond accordingly. COVID-19 is a national and global disaster, impacting virtually all aspects of our society and economy. It continues on without an end in sight and it's often unclear whether communities are responding, recovering, mitigating for future waves of the pandemic, or a combination of all these.

During a "traditional" emergency, we turn to helpers—they provide visual and emotional reassurance that everything will eventually return to "normal." They may remove us from hazardous environments, help us recover, then take us back to our "regular" lives. When those helpers fall ill, it shakes our confidence in that support and recovery process and compounds the fear we experience. Many are learning that while we can and should strive to reduce our exposure to risk, we cannot eliminate risk. When the threat is an invisible virus, there simply is nowhere safety can be guaranteed. We may start to perceive our loved ones—those we traditionally turn to for comfort, connection, and companionship—as a threat, or they may be less available due to either required or voluntary social distancing or quarantine requirements after an exposure.

Healthcare workers and first responders are not exempt from these factors. Forced to interact with each other more than ever, with an invisible threat constantly present, and exposed to the same challenges to our values that we are all facing (Figure 1), it is no surprise that our helpers often need help. These populations have and will continue to experience unprecedented and ongoing levels of stress during the COVID-19 pandemic.

With the COVID-19 pandemic, people are also finding that the rituals we are accustomed to carrying out in stressful times either won't work, are prohibited by physical distancing ordinances, or could literally pose a threat to physical health. And finally, many local governmental and health leaders find it challenging to share accurate and actionable guidance during a constantly evolving situation.

Figure 1. When Disasters Collide
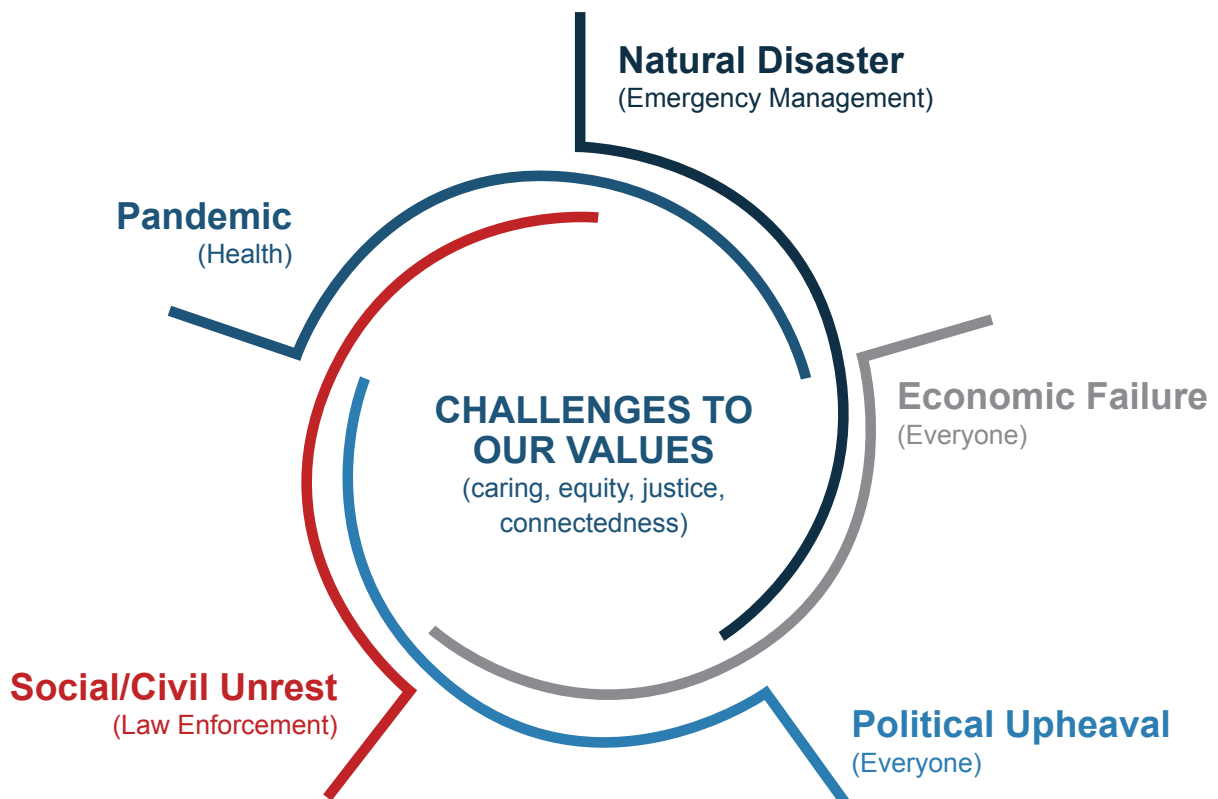
Key Questions and Concepts

What do we mean by at-risk?

Risk is a complex issue. Presumably, we mean at risk of developing or exacerbating stress reactions that compromise an individual's well-being, occupational function, and, as a result, have potential to compromise the mission. We are all at risk given the convergence of these factors. Nobody is immune. It is important to be cautious about assuming a certain person or group is at higher risk (e.g., "frontline" personnel) when we know that those not on frontline of disasters can experience unique risks associated with increased work demands, decreased meaning in the work they are doing, decreased esteem from those around them, and guilt for not being on the "frontlines."

As highlighted in Table 1, risk and resilience are influencing factors that manifest during all stages of disaster events and amplify or buffer against stress. Some of these factors are present starting in the pre-disaster time period, some emerge as the result of disaster event characteristics, and others result from aspects of the recovery phase.

> To understand risk, we can think of stress as a toxin and know which personnel are exposed to stress, to what kind, how much, when, the perceived impact, and what factors were present that could have buffered against potential adverse effects.

Table 1. Risk and Resilience in Healthcare Workers during COVID-19

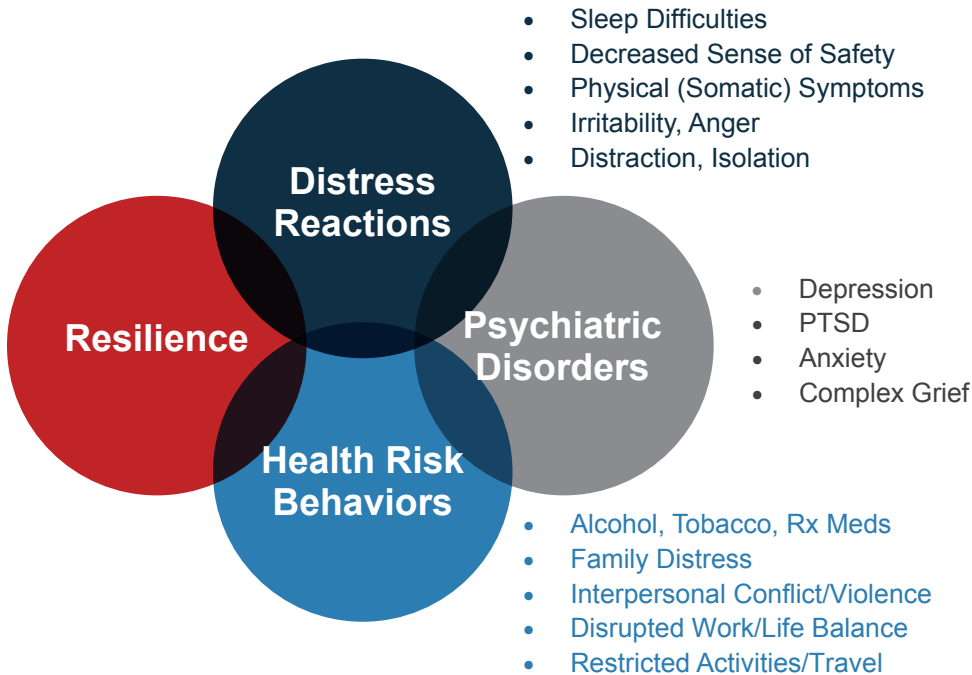|	Definition	Risk Examples	Resilience Examples
Pre-Event Period	Considerations related to status factors (e.g., health, occupational, psychosocial, educational, trauma history) and support systems	• Active and uncontrolled health problems, mental health, substance use • Requirement to access system of care to self/family healthcare • Limited/poor coping skills unresolved trauma • No/few social supports, isolation • Financial difficulties • Lack of training • Poor unit cohesion • Resistance to help-seeking	• Pre-event positive health status • Availability and use of appropriate health resources • Limited exposure to adverse environmental health factors • History of positive adaptation to stress or stress resistance • Hopeful outlook • Creative coping skills/strategies • Screening and identification of health risk status • Monitoring of changed risk factors • Identifying mission critical roles for those unable to serve as front line workers (eliminate stigma) • Adequate training and preparation (including psychosocial anticipatory guidance)

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Event/ Impact Period	Considerations of what occurs during the most active/ acute phase of events, exposure; immediate/ early reactions and nature of exposure; stressors; supports; occupational, home, and community environments	• Requirement to use crisis (altered) standards of care • Inadequate PPE • Moral distress/injury • High exposure to infection and other health risks • Exposure to death, dying, and human remains (increased risk for "psychological identification") • Required work outside specialty training • Weakened/destroyed community fabric • Punitive or unsupportive work environment • Toxic leadership • Lack of empathy • Poor communication regarding policies and procedures • Death of loved ones or close contacts; bereavement	• Short duration, minimal disruption to work/personal life • Community fabric intact • Adequate PPE • Exposure risks and sacrifices shared equitably • Clear communication about evolving infection control and personnel safety policies and procedures • Supportive and accessible leaders • Help-seeking organizational culture • Appropriate and flexible expectation • Regular monitoring of physical and behavioral health status through multiple means • Early identification of and intervention on health issues • Close monitoring of health (including behavioral health) status of workers recovered from COVID-19 • Provide range of supports, interventions, and referral options • Monitor impact of organizational status and change on wellbeing of all personnel
Recovery Period	Considerations of the nature of longer-term impacts/ experiences, status and changes in work environment, psychosocial status, family/ community status	• Illness stigma from neighbors/family/ friends • Disjointed community response further prolonging response efforts and uncertainty • Isolation from social support systems • Inability to grieve ("disenfranchised grief") • Job loss (self or significant other) • Extended virtual/home school requirements • Lack of access to child-care • Fatigue, inability to reset or recover • Diminished health	• Strong, intact, expanded social support in the workplace and in personal life following the crisis • Provide range of supports and interventions • Provide options and opportunities for personnel interactions • Promote family friendly personnel policies and strategies • Adapt to changing patterns of needs, demands • Work culture continues to encourage interventions and support • Rest and reset options provided and encouraged • Health issues addressed • Leadership remains engaged and communicating regularly with personnel

At Risk for What and When?

Historically, response to extremes of stress and trauma to which personnel can be exposed during pandemics and other disasters (as shown in Figure 1) manifest predominantly as distress reactions and health risk behaviors with some people developing psychiatric disorders. Distress reactions and risky health behaviors typically emerge early on, whereas psychiatric disorders take weeks, months or longer to manifest.

Figure 2. Psychological and Behavioral Responses to Pandemics and Disasters

- Sleep Difficulties
- Decreased Sense of Safety
- Physical (Somatic) Symptoms
- Irritability, Anger
- Distraction, Isolation

Distress Reactions

Resilience

Psychiatric Disorders

- Depression
- PTSD
- Anxiety
- Complex Grief

Health Risk Behaviors

- Alcohol, Tobacco, Rx Meds
- Family Distress
- Interpersonal Conflict/Violence
- Disrupted Work/Life Balance
- Restricted Activities/Travel

When can we identify risk?
- During academic training
- In the recruitment and selection process
- During on-the-job training
- During disaster response
- In post-event operational debriefings

Figure 1 illustrates that overall, most people, including those who have difficulties along the way, are resilient and ultimately do well over time, and may even experience an increased perception in their ability to manage future stressors; this is sometimes termed "post-traumatic growth." Many people experience distress reactions, some engage in risky health behaviors, and a smaller group will ultimately develop psychiatric disorders.

The Effect of COVID-19 on Healthcare Worker Mental Health

While research is currently evolving and emerging, there is anecdotal evidence of some profound effects of this long-lasting emergency on healthcare workers. Many are still feeling the effects of the capacity of their healthcare systems changing dramatically in a short period of time. While successive "waves" may find us more prepared to treat COVID patients, there is a challenge associated with the limited breaks between—and variance in duration of—each wave. Recent reports indicate that future challenges may be less in terms of physical inpatient capacity than in the ability to have sufficient healthcare staff onboard to effectively treat those who become ill. Issues of fatigue, resentment, and moral injury have become more common.

Disruption in Routine. A significant challenge for healthcare workers early in pandemic waves included instrumental (practical) supports, often to a greater degree than emotional supports. Challenges with child-care and requirements to transition to virtual schooling severely disrupted family routines. Even for those whose job could be done remotely, their children had become their new officemates with interruptions and elevated emotions taxing families, particularly those with children that were younger or who had additional special needs. In some families, spouses lost jobs, creating abrupt and profound economic hardship. Simply paying the bills and feeding their family became an uncertainty, perhaps for the first time ever.

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Physical Distance/Stigma. Many healthcare providers—particularly at the beginning of the pandemic—chose to physically distance themselves from their loved ones to prevent infecting them. Some were stigmatized by friends and family, due to perceptions of risk associated with their profession. Fear and stigma are common during pandemics and exacerbate feelings of social isolation for healthcare workers. Social connectedness is a protective factor in crisis events (on a range of health indicators), so it's important to think of social distancing as "physical distancing with social connectedness." Staying socially connected can also bolster resilience.

Working Remotely. Many hospital administrative staff were told to work remotely early on. While this safeguarded physical health, not having the casual and candid conversations that naturally occur in an in-person workplace makes it harder to determine if a colleague is having a hard time psychologically. Even in the workplace, it is hard to "read" a teammate's face when half of it is covered by a mask. We may be missing cues that can alert us when people are having difficulties or drifting away.

The Grieving Experience. The inability to fully experience grief is a significant challenge that faces our society in general, including our healthcare workers, particularly during surge periods. While death is a reality in the medical field, most healthcare providers do not deal with more than one per shift (or week, or month, in some cases). COVID-19 changed that for many, as patients came in extremely ill and rapidly deteriorated. Visitation restrictions and other protocols often resulted in one healthcare worker being the only other person in the room with a patient as they took their last breath. Perhaps they were holding a phone or tablet as the patient's loved ones shared the experience virtually. Being present for patients in this way and supporting family who cannot be with them in expressions of grief during a patient's final moments is an extraordinary act of caring. At the same time, we need to recognize the toll that providing this intense level of support can take on our healthcare workers and ensure they receive support after the death of a patient, or multiple patients, or a particularly challenging shift.

Whose responsibility is it to identify when a person moves from being theoretically at-risk to experiencing stress/psychological difficulties?

It is critical to ensure accountability and responsibility, especially in high stress and high demand situations that sometimes evolve into environments where traditional lines become blurred or changed. Readiness and operational functioning are the responsibility of individuals, team members, and leaders. During a public health emergency, we can consider applying the military public mental health approach within the framework of Combat and Operational Stress. Figure 2 depicts the four phases of the stress continuum ("Ready-Reacting-Injured-Ill").

Figure 2. The Stress Continuum

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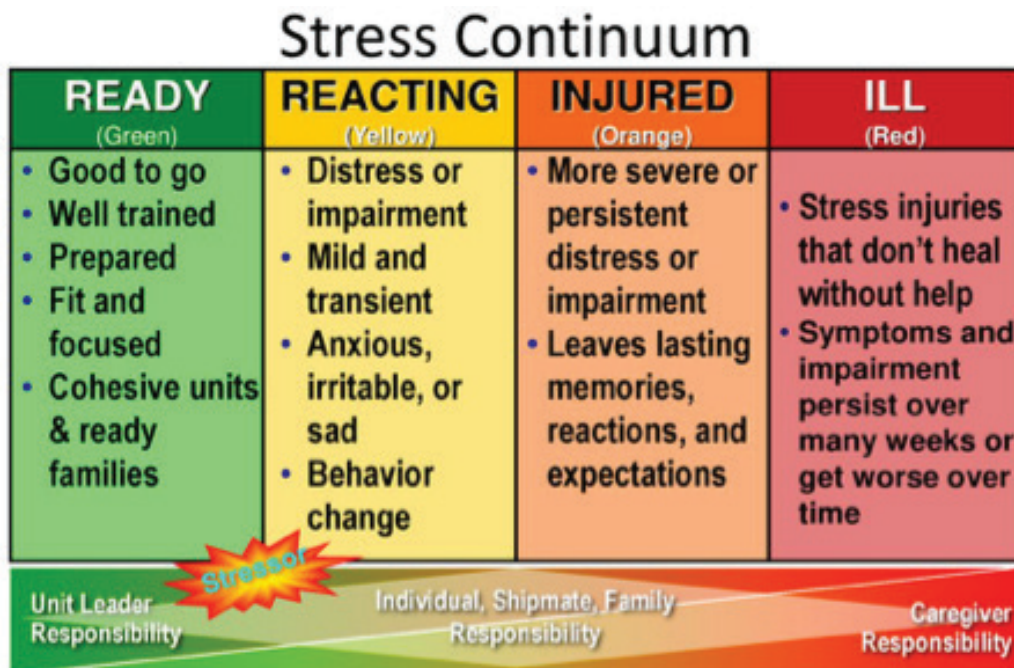
Assessment is an ongoing process and can be carried out by individuals (self-assessment), peers (the buddy system), supervisors, and others. Resilience is not static or innate but is the byproduct of a constantly evolving and complex interplay between an individual's network of stressors and factors buffering against those. As a result, having regular contact with personnel can help leaders better appreciate when changes occur. It is these changes that warrant further assessment as they may signal developing problems. Coworkers and friends can also play a significant role in identifying healthcare workers experiencing negative mental health effects of stress.

Measuring and Observing Risk

Measuring stress and resilience can involve either/both formal and informal processes. In addition to clinical measures of mental health symptoms, leaders can review human performance factors (e.g., team cohesion, presenteeism, sick leave use, recovery time) to better understand risk levels in their staff. Consider self-report, informal observation, and performance quality problems. You know your staff—are you noticing any changes in demeanor or absenteeism? Are you receiving lower patient satisfaction scores for certain providers? When you know your staff, you are aware of changes from baseline. If someone who is usually chipper and upbeat is now withdrawn and drifting away, this might be an indicator to look more closely at what is happening. The use of post-shift team huddles, establishing Peer Buddies, informal walk arounds, and other strategies can aid in "taking the temperature" of a group or organization. These strategies can complement the use of organizational surveys and often lead to greater engagement by many personnel.

Mitigating Risk

Even if there is a high quality and operationally effective strategy to identify factors that might increase risk, solely identifying without acting is incomplete and insufficient. For example, during this pandemic , if we identify a healthcare provider who is emotionally fragile and beginning to miss work, it is critical to have a strategy that addresses who contacts that person, provides supports, develops support interventions to help, and the like. Such strategies will reveal contributory factors that should be the focus of mitigation efforts. As with other elements discussed in this article, identifying and promoting mitigation strategies is a responsibility of all parts of the organization. Factors that contribute to reducing and mitigating risk include:

1. **Individual Factors**

   - Self-care – sleep, nutrition, hydration, exercise, social connections, use media wisely
   - Self-monitoring – part of "Self-Aid and Buddy Care;" take your own pulse
   - Self-advocacy – speak up when things are wrong; your voice matters

2. **Organizational Factors**

   - Instrumental (practical) supports – food, parking, lodging, child-care, family safety procedures to reduce infection risk
   - Training – timely, thorough
   - Equipment – effective, ensure staff understand how to use
   - Camaraderie – between colleagues, managers
   - Communication – regular, updated, actionable
   - Preparation – for a range of exposures
   - Education specific to stress reactions– normal reactions, resources, resilience
   - Support to prevent isolation– web-based or in-person
   - Promote a "growth mindset" – support now, look to the future
     - Team Huddles – useful anytime, helps determine how people are doing and what they need going forward. Provides a good opportunity to monitor staff for changes

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- After Action Reviews –what went well and not, what to continue and what to modify; use to correct negative distorted thoughts about outcomes or performance

- Buddy Systems – enhance safety, self-/team-efficacy, connection

- Resetting – critical in the absence of clear recovery; get what you need to keep going even if you cannot fully return to "baseline"

- Reintegration – challenges returning to routine work and family after operations can be more stressful than the operations themselves; anticipate & educate

3. **Leadership**

- Modeling self-care, stress management

- Effective communication-Knowing and practicing effective strategies for communication before, during, and following a crisis

- Grief leadership- Knowing how to provide support to an organization during and following loss; involves anticipating and acknowledging losses, honoring losses through rituals/memorials, then help look hopefully to the future

- Stockdale paradox-This notion comes from former POW Admiral James Stockdale who advocates the notion that no matter now bleak the situation is, one must confront those facts with faith in prevailing in the end.

> **Related CSTS Leadership Resources**
>
> Leadership Stress Management
>
> Leadership Communication: Anticipating and Responding to Stressful Events
>
> Grief Leadership: Leadership in the Wake of Tragedy

"You must never confuse faith that you will prevail in the end—which you can never afford to lose—with the discipline to confront the most brutal facts of your current reality, whatever they might be."   -- *James Stockdale*

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