cognitive benefits during stressful tasks (ie, an increased cardiac efficiency with lower vascular resistance and a decreased attentional bias). A study shows that it is not the high amount of stress but also the belief that stress negatively affects health that leads to an increased risk of premature death. Thus, we advocate not to perceive stress as only a harmful factor but instead emphasize the positive adaptive and functional influence of stress in coping with difficult tasks. The authors state that extreme situations experienced by providers during the COVID-19 outbreak may lead to post-traumatic stress disorder or other mental problems related to stress. However, the act of helping others reduces mortality. Thus, we recommend that hospital staff be reminded of the invaluable help they provide for their patients to gain health benefits rather than mental disease.

We commend Karnatovskaia et al for providing crucial insight on pathophysiologic and pathopsychological implications of stress and fear for patients and their providers. However, different perception of stress creates new opportunities for coping with extreme situations more efficiently and may allow providers and patients to maintain their quality of life, as we highlighted.

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ORCID
Paulina Skrzypkowska: https://orcid.org/0000-0002-7724-1334


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In Reply—The Role of Stress Perception for Clinical Implications of Stress

To the Editor: We welcome the observations of Skrzypkowska et al and fully agree with many of their sentiments. As we described and their letter affirms, stress and fear are often manifested as physical, cognitive, psychological, and emotional expressions. Although stress can play a beneficial role in human development, opportunities for recovery are also essential to sustain high performance over time and to prevent physical and emotional exhaustion. Deleterious trends in mental health in patients with COVID 19, the public, and health care providers have already been associated with the sustained stress of the pandemic. Although the physical expressions of these stressors are not yet fully elucidated, early evidence and historical experience suggest they too will be consequential.

Skrzypkowska highlighted the importance of one’s perception of stress on subsequent manifestations. We wholly agree with this assertion. However, one’s perception of the impact of stress is variable and formed by innate factors and external experiences. They highlight the experimental effectiveness of instructing people to view stress as an adaptive response. Although demonstrated to be beneficial, providing that instruction in a nonexperimental setting is challenging, and doing so effectively in the midst of this pandemic with numerous competing priorities would be exponentially difficult. Without intervention, the continuous imbalance of inadequate recovery and excessive demands that many health care workers currently face are more likely to result in nonfunctional overreaching and burnout, with decreased performance and negative psychological and hormonal alterations.

The authors also assert that “the act of helping others reduces mortality.” Although we agree that continuing to emphasize to health care workers the tremendous benevolence and effectiveness of their care is essential, it is also important to recognize the perceptions of failure voiced by these providers. The inability to achieve a favorable outcome for a patient is often viewed through the lens of both a personal and system failure that often cannot be assuaged solely by recognition of one’s helping efforts.
The term *moral injury* has been increasingly proposed to describe the distress that health care workers experience, especially when these events are associated with the excessive demands of energy, strength, and resources often experienced within current health care systems. The resulting constellation of symptoms—malaise, fatigue, frustration, cynicism, and inefficiency—shares many similarities with post-traumatic stress disorder and its associated psychological injury.\(^7\)

The indirect consequences of the COVID-19 pandemic across the globe, especially the physical and mental health consequences of the psychological stress, will be astronomical and long lasting. How to address these consequences is uncertain.\(^8\) Identifying and implementing effective measures to mitigate these effects will require novel ideas and collective input from the global community.

Skrzpikowska offers important observations to advance these initiatives, and we appreciate their contribution to this critical conversation.

**Margaret M. Johnson, MD**  
Mayo Clinic College of Medicine  
Pulmonary  
Jacksonville, FL

**Lioudmila V. Karnatovskaia, MD**  
Mayo Clinic  
Division of Pulmonary and Critical Care Medicine  
Rochester, MN

**Alexander S. Niven, MD**  
Mayo Clinic  
Division of Pulmonary and Critical Care Medicine  
Department of Medicine  
Rochester, MN

**Potential Competing Interests:** The authors report no competing interests.

**ORCID**  
Lioudmila V. Karnatovskaia: [https://orcid.org/0000-0002-9689-3792](https://orcid.org/0000-0002-9689-3792)
