EDITORIAL

Surviving the trauma of COVID-19

As a psychological scientist who investigates how individuals and communities respond to collective traumas, I study human resilience in a range of situations—from earthquakes and hurricanes to mass violence and war. Shortly after the 11 September 2001 terrorist attacks against the United States, I sat in the White House Office of Homeland Security discussing community resilience. Although the threat to society seemed real and continuing, national leaders were anxious to get people back on airplanes and into high-rise office buildings. In retrospect, the nation proved to be quite resilient: The threat of terrorism was never eliminated, but industries and urban centers continued to thrive. Decades later, the United States and world face another threat, equally amorphous and extremely deadly. In months, severe acute respiratory syndrome coronavirus 2 (SARS-CoV-2), the virus that causes coronavirus disease 2019 (COVID-19), has infected over 10 million people, killed over 125,000 Americans, and led to more than 500,000 deaths worldwide. A vaccine for COVID-19 is perhaps a year away. What does psychological science tell us about how individuals are responding—and will respond—as the pandemic waxes and wanes? What will the postpandemic "normal" look like? Will our society prove to be resilient?

"What will the postpandemic 'normal' look like?"

COVID-19 is a physical illness that scientists are trying to understand from many angles. But the pandemic and its associated stressors also are likely to have serious mental health consequences. It is quite normal to experience distress as a result of chronic stress of this magnitude. Losses that are real (of loved ones, without the opportunity for a ritual funeral) or symbolic (graduation celebrations) abound. There may be grief for many, and unresolved grief for some. Isolation may lead to depression for many and suicidal ideation for some. But there will be no "one size fits all" response to this crisis.

Decades of psychological science on collective traumas indicate that individuals' responses are likely to be based on several factors. These include their prepandemic circumstances and resources—prior exposures to adversity, physical and mental health vulnerabilities, and economic and social supports. One must also consider exposures encountered during the pandemic: Did a family member get sick or worse? Did the person lose a job or health insurance? Was the individual an essential worker whose actions ensured others' well-being? How much time was spent immersed in traditional or social media, repeatedly being exposed to hours of bad news? One must also consider community-level stressors. Did the individual live in a "hot spot"? Did shops and restaurants close, never to reopen? Was there unambiguous guidance from a governor that was backed by the best science? Emotional and behavioral responses to this ongoing crisis will be multidetermined but not random, and psychological science has isolated risk factors that can guide social service organizations and health care providers to identify the most psychologically vulnerable among us.

As the death toll due to COVID-19 crossed 125,000 in the United States, behavioral restrictions have been relaxed nationwide. Current public health guidance recommends self-protective behaviors, including frequent hand washing, social distancing, and wearing face coverings. Yet media reports show people congregating with no physical distancing at parties, beaches, and street protests. Research suggests that exposure to conflicting information from government authorities, media sources, and social networks plays a role in understanding whether or not individuals follow science-based recommendations to minimize risk and maximize public health. When Ebola virus cases appeared in the United States in 2014, the public proved to understand risk information that is clearly and directly communicated by trusted authorities. Moreover, this trust must be maintained by honesty and competence. And just as the public returned to airplanes and high rises after 9/11, and just as people now go through x-ray machines without protest before they board a plane, most people will follow the rules.

Successfully managing COVID-19 and its aftermath will require that behavioral scientists provide a roadmap for public officials to ensure the public's cooperation, trust in, and implementation of what is learned from biomedical science. Responsible health-protective behaviors must be encouraged with messaging that conveys clearly and consistently the costs and benefits of actions that can ensure the physical and mental health of oneself and one's community. Although the timing of containment of COVID-19 remains unknown, most people will get to the other side of the pandemic recognizing strengths and coping skills that they did not realize they had.

–Roxane Cohen Silver

Roxane Cohen Silver is a professor of psychological science, public health, and medicine at the University of California, Irvine, CA, USA, and the president of the Federation of Associations in Behavioral and Brain Sciences, Washington, DC, USA. rsilver@uci.edu

PHOTO: JODY ROSS/R & R CREATIVE PHOTOGRAPHY

10.1126/science.abd5396

Surviving the trauma of COVID-19

Roxane Cohen Silver

Science **369** (6499), 11.
DOI: 10.1126/science.abd5396