Past stressful experiences do not create resilience to future trauma, new study finds
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What doesn't kill you makes you stronger—that claim is so universally accepted that it's a common truism in contexts from everyday conversations to Top 40 pop charts.

But new research led by a team of Brown University researchers finds that this is false. In fact, the research suggests the opposite is true: Past stressors sensitize people to future traumas, thereby increasing their chances of developing a mental health disorder.

"We hope that this research will spur interest in the face of the increasing number of natural disasters per year—a major consequence of climate change—such as the devastating earthquake that affected Chile and neighboring countries," said Cristina Fernandez, a psychiatric epidemiologist and the study's lead author. "The immediate global impacts of these catastrophic events on disease, death and the economy are largely well-recognized. Unfortunately, despite a high disease burden, mental illness has thus far not achieved commensurate visibility, policy attention or funding."

The study, published in the *British Journal of Psychiatry* on Thursday, June 11, was a collaborative effort led by scientists at Brown and the University of Concepción in central Chile.

The team examined 1,160 Chileans in 2003 and 2011—both before and after the sixth-most-powerful earthquake on record and subsequent tsunami struck their country in 2010. When the study began in 2003, none of the participants had a history of post-traumatic stress disorder (PTSD) or major depressive disorder (MDD). After the 2010 earthquake, 9.1% of the survivors were diagnosed with PTSD and 14.4% with MDD.

The risk of developing these disorders was particularly high among individuals who experienced multiple pre-disaster stressors, such as serious illness or injury, death of a loved one, divorce, unemployment or financial struggles, legal troubles or loss of a valuable possession. To be at increased risk for post-disaster PTSD (relative to those with zero stressors), individuals had to have crossed a "severity threshold" of four or more pre-disaster stressors.

MDD displayed a slightly different pattern: Every pre-disaster stressor—even a single stressor—increased a person's risk of developing post-disaster MDD, and each additional stressor further increased the risk.

The researchers say that overall, both findings suggest that the Chilean disaster survivors who had experienced multiple stressors and traumas were at a greater risk of developing a post-disaster mental health disorder compared to those who had experienced few or no prior stressors.

"Unfortunately, the same may well hold true with COVID-19," said Stephen Buka, a professor of epidemiology at Brown's School of Public Health.
and senior author of the paper. "We're already witnessing how black and Latino Americans are experiencing higher rates of [COVID-19] infections and fatalities. All evidence suggests that disadvantaged groups, who frequently have higher levels of prior life stresses—such as limited finances and job instability—will be most likely to suffer the most from serious mental health conditions following the pandemic."

The team hopes its research will help other countries understand the importance of accessible mental health care.

"Personal and national mental health preparedness kits, such as the ones utilized in Chile, help mitigate the negative effects of disasters and can serve as a model for other countries," said Benjamin Vicente, a principal investigator of the study from the University of Concepción. "Along with strict building codes, [Chile] has a national health care service, which includes integrated primary and mental health care centers, most of which have trained personnel to provide disaster coping strategies when needed."


Provided by Brown University

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