

Mindfulness-based intervention shows promise for PTSD in cardiac arrest survivors

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A novel pilot study that combines mindfulness and exposure intervention shows promise for reducing symptoms of post-traumatic stress in survivors of sudden cardiac arrest (SCA), a leading cause of death in the

United States.

Each year, more than 356,000 Americans have an out-of-hospital [cardiac arrest](#), with 90 percent of them fatal. Studies show that one in three survivors report symptoms that meet the criteria for [post-traumatic stress disorder](#) (PTSD) following hospital discharge.

"Beyond emotional suffering, elevated PTSD symptoms are associated with increased mortality and [cardiovascular risk](#), yet no psychotherapeutic treatment has been developed and tested for this population," said Maja Bergman, Ph.D., lead study author and a postdoctoral clinician with the PTSD Research and Treatment Program at Columbia University Irving Medical Center.

The [study](#) was published in the *Journal of Clinical Psychiatry*.

"Exposure therapy is a [standard treatment](#) for PTSD, but it's safety and efficacy remain unconfirmed for SCA survivors for whom the source of the trauma is within the body rather than in the outside world," said senior study author Yuval Neria, Ph.D., professor of clinical medical psychology (in psychiatry and epidemiology) and director of the Columbia PTSD Research and Treatment program.

Incorporating mindfulness into exposure therapy

The researchers hypothesized that to address the unique emotional needs of SCA patients, a [treatment protocol](#) incorporating mindfulness components into [exposure therapy](#) might enhance both willingness to engage in exposure techniques and subsequent outcomes.

To test the theory, the research team designed an open feasibility pilot study recruiting a small sample of cardiac arrest survivors (N=11) who met the diagnostic criteria for PTSD to determine whether a brief

treatment—known as Acceptance and Mindfulness-Based Exposure Therapy, or AMBET—could reduce post-traumatic stress symptoms.

The protocol comprised eight 90-minute weekly sessions delivered remotely due to COVID-19 restrictions, incorporating exposure and mindfulness interventions and cardiovascular psychoeducation.

Exposure therapy for SCA patients involved revisiting the traumatic event through discussion, guided imagery, and other techniques to help patients confront and process associated memories, while mindfulness, known to normalize physiological stress responses that link PTSD and cardiovascular risk, provided exposure to internal body stimuli to promote adaptive behaviors.

80% showed significant improvement

At the eight-week post-treatment mark, a majority of patients—all but two—no longer met the criteria for PTSD. In addition, the trial had low attrition, high satisfaction ratings, and no adverse effects.

Along with [psychological benefits](#), the researchers also found that AMBET improved cardiovascular health behaviors, including quality of sleep and increased [physical activity](#), determined having patients wear Fitbit devices to gauge steps and sedentary behavior.

"The study not only addresses a critical gap in treatment options for a high-risk patient population but also underscores the potential of AMBET in improving coping mechanisms and reducing anxiety related to cardiac activity," Dr. Bergman said.

The researchers said that while the promising findings open new avenues for treatment, further research is necessary to explore the specific contributions of exposure and mindfulness practices in SCA survivors.

"We believe that the strong findings of this small trial provide an excellent opportunity to continue to partner with our colleagues at the Center for Behavioral Cardiovascular Health and move to a larger randomized controlled trial," said Dr. Neria.

More information: Maja Bergman et al, Acceptance and Mindfulness-Based Exposure Therapy for PTSD After Cardiac Arrest, *The Journal of Clinical Psychiatry* (2023). [DOI: 10.4088/JCP.23m14883](https://doi.org/10.4088/JCP.23m14883)

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