

Sleep deprivation may reduce risk of PTSD, according to new research

July 18 2012

Sleep deprivation in the first few hours after exposure to a significantly stressful threat actually reduces the risk of Post-Traumatic Stress Disorder (PTSD), according to a study by researchers from Ben-Gurion University of the Negev (BGU) and Tel Aviv University.

The new study was published in the international scientific journal, *Neuropsychopharmacology*. It revealed in a series of experiments that sleep deprivation of approximately six hours immediately after exposure to a traumatic event reduces the development of post trauma-like [behavioral responses](#). As a result, sleep deprivation the first hours after stress exposure might represent a simple, yet effective, intervention for PTSD.

The research was conducted by Prof. Hagit Cohen, director of the Anxiety and Stress Research Unit at BGU's Faculty of Health Sciences, in collaboration with Prof. Joseph Zohar of Tel Aviv University.

Approximately 20 percent of people exposed to a severe traumatic event, such as a car or work accident, terrorist attack or war, cannot normally carry on their lives. These people retain the memory of the event for many years. It causes considerable difficulties in the person's functioning in daily life and, in extreme cases, may render the individual completely dysfunctional.

"Often those close to someone exposed to a traumatic event, including medical teams, seek to relieve the distress and assume that it would be

best if they could rest and "sleep on it," says Prof. Cohen. "Since memory is a significant component in the development of post-traumatic symptoms, we decided to examine the various effects of sleep deprivation immediately after exposure to trauma."

In the experiments, rats that underwent [sleep deprivation](#) after exposure to trauma (predator scent stress exposure), later did not exhibit behavior indicating memory of the event, while a [control group](#) of rats that was allowed to sleep after the stress exposure did remember, as shown by their post trauma-like behavior.

"As is the case for human populations exposed to severe stress, 15 to 20 percent of the animals develop long-term disruptions in their behavior," says Cohen. "Our research method for this study is, we believe, a breakthrough in biomedical research."

A pilot study in humans is currently being planned. The studies were funded by a Israel Academy of Science and Humanities grant and the Israel Ministry of Health.

Provided by American Associates, Ben-Gurion University of the Negev

Citation: Sleep deprivation may reduce risk of PTSD, according to new research (2012, July 18) retrieved 23 April 2024 from <https://medicalxpress.com/news/2012-07-deprivation-ptsd.html>

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