

Metabolic Syndrome a Risk for Veterans with PTSD

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Veterans with post-traumatic stress disorder (PTSD) are more likely to have metabolic syndrome than veterans without PTSD, according to a study led by Pia Heppner, Ph.D., psychologist with the University of California, San Diego School of Medicine and Veterans Affairs of San Diego, VA Center of Excellence for Stress and Mental Health (CESAMH). The study will be published online January 8 by the journal *BMC Medicine*.

Metabolic syndrome is composed of a cluster of clinical signs including obesity, high blood pressure and insulin resistance and is also associated with cardiovascular disease.

The researchers studied a group of male and female veterans presenting for screening and treatment within the PTSD programs at the Cincinnati Veterans Affairs Medical Center. The sample was primarily male (92%) and Caucasian (76%), with an average age of 52 years. A majority of the sample had served in the U.S. Army (71%), and close to 70 % were Vietnam-era veterans. Clinical data indicate that over half (55%) of these veterans had moderate to severe levels of PTSD and 64% met criteria for major depressive disorder (MDD). About 40% of the veterans met criteria for metabolic syndrome.

Controlling for other factors such as age, gender, depression and substance abuse, the researchers found that those with a higher severity of PTSD were more likely to meet the diagnostic criteria for metabolic syndrome. Additionally, the rate of metabolic syndrome was higher among those with PTSD (34%) than in those with MDD (29%). For those with both PTSD and MDD, 46% met criteria for metabolic syndrome.

"Our research indicates that stress and post-stress responses are related to long-term health outcomes," said Heppner. Studies show that veterans, prisoners of war and individuals exposed to severe trauma have higher rates of disease and increased use of health care, she continued. "Our findings suggest that metabolic syndrome provides a useful framework for assessing and describing the physical burden of PTSD and can be used prospectively to evaluate health risk that may be associated with combat exposure and PTSD.

Any traumatic event or series of events can cause PTSD and nearly 7.7 million Americans suffer from PTSD in any given year, according to the National Institute of Mental Health. A neuropsychiatric illness that was first formally diagnosed in soldiers and war veterans, it is now recognized to afflict many civilians as well. PTSD is caused by horrific, life-threatening and traumatic experiences that can occur during combat deployments. Symptoms include re-experiencing the trauma through flashbacks, intrusive thoughts and nightmares, avoidance of reminders of the trauma, excessive anxiety and trouble concentrating. Many people with PTSD also develop depression and substance abuse problems. Recent data from Afghanistan and Iraq suggest that more than one in ten military personnel involved in these conflicts develop PTSD.

The authors suggest that future research is needed to evaluate the specific mechanisms in which physiological responses to stress can increase long-term health risk.

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