



Dr. Joseph Calabrese

## ON THE FRONT LINE

### Department of Defense Study Delves into Origins of Soldiers' PTSD

#### First-of-its-kind study advances PTSD prevention and treatment

*Since 2008, the Mood Disorders Research Program at UH Case Medical Center has served as the coordinating center for the Ohio Army National Guard Mental Health Initiative, the first long-term prospective study of the development of post-traumatic stress disorder (PTSD) in active-duty combatants.*

*The 10-year, multisite Department of Defense (DoD) project evaluates risk and resilience factors in the development of PTSD and other mental illnesses among Ohio Army National Guard soldiers.*

The initiative is directed by **Joseph Calabrese, MD**, Director, Mood Disorders Program, UH Case Medical Center, Director, Bipolar Disorders Research Center, and Bipolar Disorders Research Chair and Professor, Case Western Reserve University School of Medicine. Dr. Calabrese is a nationally recognized researcher who has served as principal investigator in more than 70 studies on the treatment of bipolar disorder and major depressive disorder.

Researchers chose to focus on the National Guard because it is an understudied military population. Since the first Gulf War, National Guard soldiers have been deployed to combat zones in increasing numbers. They experience unique stressors in that they are often deployed separately from their units, maintain civilian jobs and have a time-limited amount of health care coverage following deployment.

The initiative currently encompasses five projects across five sites including UH Case Medical Center and the University of Toledo. The Mood Disorders Research Program provides collaborating sites with free access to the data and participants. The main project, which serves as the foundation for all others, is a longitudinal study of risk and resiliency as it relates to five conditions: PTSD, alcohol abuse, alcohol dependence, depression and anxiety. Researchers conduct annual telephone interviews with a random sample of approximately 3,500 National Guard soldiers to catalog their lives and military experiences and track their mental health indicators over time.

A unique aspect of the study is its inclusion of soldiers' life experiences both inside and outside the military. Traditionally, military PTSD research focused on combat and post-deployment consequences, but soldiers' experiences during childhood, in the midst of service and after leaving the military can have an important impact on their adjustment and mental health. That is why researchers designed the study to encompass pre-, peri- and post-deployment factors.

The first years of National Guard interviews yielded groundbreaking findings that are already being put into practice. The incidence of depression, alcohol dependence and alcohol abuse among soldiers was much higher than expected. Investigators also found that soldiers with PTSD and two or more comorbid conditions were seven times more likely to report suicidal ideation than those with PTSD alone. These findings are helping the Ohio Army National Guard identify soldiers most in need of support and intervention.

In the process of researching PTSD risk and resilience factors, Dr. Calabrese and his team created an unparalleled longitudinal sample of National Guard soldiers. This sample has become a platform for four additional DoD-sponsored projects, with two more under consideration. Researchers at the University of Michigan (U-M) are using the sample to test an early intervention program for alcohol misuse that can be delivered worldwide via text messaging. Researchers at U-M and Columbia University used the sample to make a new genetic link to PTSD.

The pioneering research has implications for the training of National Guard soldiers, the care and treatment of adjustment-related illnesses and the provision of post-deployment social support. Dr. Calabrese's mission is to conduct clinically relevant research that results in immediate changes for soldiers and their families. As of October 2014, the initiative has yielded 16 peer-reviewed papers.

The \$23 million research project was initiated and championed by Rep. Marcy Kaptur of Ohio's 9th Congressional District, who approached Dr. Calabrese to serve as collaborator and secured initial funding through a Congressional allocation. The project is currently funded by the National Institute of Mental Health, Agency for Healthcare Research and Quality, the U.S. Congress and the Joint Warfighter Medical Research Program. In 2014, the DoD made another grant to the project, providing an additional \$6.5 million to fund the continuation of these landmark studies through 2018.

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