Why Some Soldiers Develop PTSD While Others Don't

February 21, 2013

Pre-war vulnerability is just as important as combat-related trauma in predicting whether veterans' symptoms of post-traumatic stress disorder (PTSD) will be long-lasting, according to new research published in <u>*Clinical Psychological Science*</u>, a journal of the <u>Association for Psychological Science</u>.

Researcher Bruce Dohrenwend and colleagues at Columbia's Mailman School of Public Health and the New York State Psychiatric Institute found that traumatic experiences during combat predicted the onset of the full complement of symptoms, known as the PTSD "syndrome," in Vietnam veterans. But other factors — such as pre-war psychological vulnerabilities — were equally important for predicting whether the syndrome persisted.

The researchers re-examined data from a subsample of 260 male veterans from the National Vietnam Veterans Readjustment Study. All of the veterans in the subsample had received diagnostic examinations by experienced clinicians that included information about the onset of the disorder and whether it was still current 11 to 12 years after the war ended.

Dohrenwend and colleagues focused on the roles of three primary factors: severity of combat exposure (e.g., life-threatening experiences or traumatic events during combat), pre-war vulnerabilities (e.g., childhood physical abuse, family history of substance abuse), and involvement in harming civilians or prisoners.

The data indicated that stressful combat exposure was necessary for the onset of the PTSD syndrome, as 98% of the veterans who developed the PTSD syndrome had experienced one or more traumatic events.

But combat exposure alone was not sufficient to cause the PTSD syndrome.

Of the soldiers who experienced any potentially traumatic combat exposures, only 31.6% developed the PTSD syndrome. When the researchers limited their analysis to the soldiers who experienced the most severe traumatic exposures, there was still a substantial proportion — about 30% — that did not develop the syndrome. This suggests that there were other factors and vulnerabilities involved for the minority of exposed who did end up developing the PTSD syndrome.

Among these factors, childhood experiences of physical abuse or a pre-Vietnam psychiatric disorder other than PTSD were strong contributors to PTSD onset. Age also seemed to play an important role: Men who were younger than 25 when they entered the war were seven times more likely to develop PTSD compared to older men. The researchers also found that soldiers who inflicted harm on civilians or prisoners of war were much more likely to develop PTSD.

The combined data from all three primary factors — combat exposure, prewar vulnerability, and involvement in harming civilians or prisoners — revealed that PTSD syndrome onset reached an

estimated 97% for veterans high on all three. While severity of combat exposure was the strongest predictor of whether the soldiers developed the syndrome, pre-war vulnerability was just as important in predicting the persistence of the syndrome over the long run.

The researchers conclude that these findings have important implications for policies aimed at preventing cases of war-related PTSD.

Given the seemingly potent interaction between combat exposure and pre-war vulnerability, these results emphasize the need to keep the more vulnerable soldiers out of the most severe combat situations.

Dohrenwend and colleagues also point out that the recent conflicts in Iraq and Afghanistan, like the Vietnam War, are "wars amongst the people," and they underline the need for research examining the circumstances in which harm to civilians and prisoners is likely to occur. Such research could provide important clues for preventing such devastating violations of the rules of war.

In addition to Dohrenwend, co-authors on this research include Thomas Yager and Ben Adams at the Mailman School of Public Health at Columbia University; and Melanie Wall of the Mailman School of Public Health and Department of Psychiatry at Columbia University, and the New York State Psychiatric Institute.

The research was supported by the National Institute of Mental Health (Grant R01-MH059309) and by grants from the Spunk Fund, Inc. and a Ruth L. Kirschstein National Research Service Award from the National Institute of Mental Health.