The Relationship between Post-Traumatic Stress Disorder, Depression and Cardiovascular Disease in an American Indian Tribe

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2005.

Abstract

BACKGROUND: Empirical findings suggest that psychiatric illness is associated with cardiovascular disease (CVD): The purpose of this study was to compare the strength of the association of lifetime post-traumatic stress disorder (PTSD) and lifetime major depression on CVD among Northern Plains American Indians.

METHOD: A total of 1414 participants aged 18–57 years completed a structured interview that assessed psychiatric diagnoses, alcohol abuse/dependence, self-reported CVD, and traditional CVD risk factors including age, sex, education, diabetes, high blood pressure, and smoking. Logistic regression analyses compared the odds ratios of CVD in participants with and without diagnosed PTSD or major depression.

RESULTS: The rates of lifetime PTSD and major depression were 15% and 8% respectively. CVD was more commonly reported by participants with PTSD than by those without PTSD (12% v. 5%, pf0.01). Likewise, more participants with major depression reported CVD than did their nondepressed counterparts (14% v. 6%, pf0.05). PTSD was significantly associated with CVD even after controlling for traditional CVD risk factors and major depression (odds ratio 2.0, confidence interval 1.1–3.8). In contrast, the association of major depression with CVD was not significant after accounting for both traditional risk factors and PTSD.

CONCLUSIONS: Rates of PTSD are high in American Indian communities. Rising CVD rates in this population may be better understood if PTSD is considered along with other traditional risk factors. Future research should examine the association and mechanisms of PTSD and CVD prospectively. Such data could lead to more effective CVD prevention efforts for American Indians.