

The Relationship between Post-Traumatic Stress Disorder, Depression, and Lung Disorders in Northern Plains and Southwest American Indians

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Abstract

OBJECTIVE: Research within the past decade has suggested that mental disorders are associated with lung disorders. This study compared the association of lifetime post-traumatic stress disorder (PTSD) and lifetime major depression with lung disorders in two American Indian (AI) tribal communities.

DESIGN: A total of 2622 tribal members (1414 in the Northern Plains and 1208 in the Southwest) aged 18-57 years completed an interview assessing psychiatric diagnoses and physical health, including lung disorders. Logistic regression analyses were used to estimate odds ratios for the association of PTSD and major depression with lung disorders.

RESULTS: The prevalence of lung disorders was 17% (95% Confidence Interval [CI]: 15, 19) in the Northern Plains and 13% (95% CI: 11, 15) in the Southwest. In the Northern Plains, men with lung disorders had a higher prevalence of PTSD and major depression than men without lung disorders, and women with lung disorders had a higher prevalence of major depression than women without lung disorders. Neither PTSD nor major depression was associated with lung disorders in men or women living in the Southwest. In the Northern Plains, major depression remained significantly associated with lung disorders in both men (OR=3.1, 95% CI: 1.5, 6.4) and women (OR=2.2, 95% CI: 1.2, 4.1) even after adjusting for age, education, smoking, alcohol abuse, and PTSD.

CONCLUSIONS: Depression, but not PTSD, was associated with lung disorders in AIs living in the Northern Plains. Differences between the Northern Plains and the Southwest underscore the importance of recognizing unique characteristics of tribes and tribal communities. The increasing prevalence of lung disorders in AIs heightens the need for further work to help explain social, cultural, and clinical determinants of these disorders and their associations to PTSD and depression, and ultimately to help provide more effective clinical treatment and preventive care.