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***A Mixed-Methods Community Investigation of Trauma and Depression Incidence within an Indigenous Population***

American Indians experience some of the highest health disparities in the nation per ethnicity, to include lower life expectancy and disproportionate stress, poverty, discrimination in the delivery of health services, poor social conditions, and cultural differences. Increased frequency and intensity of prolonged stress has been related to susceptibility of infection and autoimmune and chronic disease. This inquiry seeks to define the relationship between stress biomarkers, infection, and disease. A primary piece of this investigation is the potential connection between salivary cortisol, trauma, and negative health experiences. This was measured by both quantitative blood and saliva samples compared with the qualitative self-report survey called the Adverse Childhood Experiences (ACE) with the aim of exposing the increased occurrence of chronic disease and infection frequency as well as adverse life conditions community participants were experiencing. Enzyme-linked immunosorbant assay (ELISA) was used to establish salivary cortisol levels in 110 recruited participants, determining if they exhibited elevated levels of stress. This research further explored additional stress biomarkers such as c-reactive protein and immunoglobulin A (IgA). The purpose of this work is to provide information to educate individuals in the management of stress to improve quality of life. We found that there was significant correlation between trauma and depression, though no correlational significance between salivary cortisol, C-reactive protein, nor immunoglobulin-A with trauma.

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