

Pilot Project: Health Disparities in HIV, Depression and Alzheimer's Disease in South Carolina

Principal Investigator: Dr. Monique Brown

Institution: University of South Carolina

Abstract

At present, 5.7 million people in the US are living with AD. In 2015, South Carolina had the highest AD mortality rate in the US at 61 deaths per 100,000 population. The Southern US accounts for almost half of people living with HIV (PLHV) in the US. In 2018, South Carolina (SC) accounted for the 8th highest HIV prevalence rate in the US at 405.6 per 100,000 population. During the course of the disease, HIV encephalopathy may result, which may spread through the brain and result in HIV-associated dementia (HAD). HAD is a major challenge among PLHV and is positively associated with lower adherence to antiretroviral therapy (ART). As at least 90-95% adherence to ART is needed to obtain viral suppression, which lowers the risk of HIV transmission, more studies are needed to determine potential ways to reduce or prevent HAD among PLHV. Among populations living with and without HIV, depression is the most common mental health disorder. Research has also shown that depression is positively associated with neurocognitive impairment among PLHV. However, research examining the racial/ethnic and/or rural/urban disparities in these relationships is lacking. The aims of this study are to: 1) Determine the association between depression and Alzheimer's disease; 2) Explore the relationship between depression and HIV-associated dementia; and 3) Examine the association between HIV-associated dementia and Alzheimer's disease among people living with HIV. We will also assess the related racial/ethnic and rural/urban disparities. Data will be garnered from the South Carolina Alzheimer's Disease Registry and the South Carolina Revenue and Fiscal Affairs Office. The results from this study will help to identify crucial focal points and specific target populations for cognition interventions geared towards PLHV.