Residents of rural 'glades' take a 'leap of faith' to combat dementia

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With more than 30 churches in the small cities of Pahokee and Belle Glade alone, this region provided a good fit for testing a faith-based approach to increasing knowledge and reducing risk. Credit: Florida Atlantic University

The prevalence of Alzheimer's disease and related dementias (ADRD) is

disproportionately high among rural, racially/ethnically diverse older residents. In fact, they face up to an 80% greater risk of cognitive impairment in older age, and 2.5 times potentially preventable ADRD-related hospitalizations compared to urban dwellers. It is estimated that early and accurate diagnosis in the mild cognitive impairment stage could save up to $7 trillion in patients' health and long-term care costs by 2050.

To address these health disparities in rural underserved populations, researchers from Florida Atlantic University's Christine E. Lynn College of Nursing and collaborators employed an innovative study at the Southern tip of Florida's Lake Okeechobee.

The "Glades" is comprised of four small farming cities with about 50,000 residents who are primarily African American, Hispanic and Afro-Caribbean. With more than 30 churches in the cities of Pahokee and Belle Glade alone, this region provided a good fit for testing their faith-based approach.

Researchers adapted "Faith Moves Mountains," a protocol developed by Nancy E. Schoenberg, Ph.D., used for cancer screening and detection in rural Appalachia, for cognitive decline in rural Floridians. The objective of the study was to increase basic ADRD knowledge, early detection and intervention, and to determine if race/ethnicity, older age, female gender, lower educational levels, and more years lived rurally and alone would predict the number of referrals, new dementia diagnoses and treatment.

Results of the study, published in the journal *Aging & Mental Health*, showed that referrals and years lived rural were significant and positive predictors of new ADRD treatments, respectively, regardless of participant characteristics. Years living in the Glades and African American and Afro-Caribbean ethnicity were significantly related to

higher referral rates following screening for cognitive decline.

For the study, local faith community members were trained as research assistants to recruit, administer surveys, conduct brief memory assessments, teach brain health strategies, and follow-up with residents. Church leaders introduced the study through the area-wide church council. A church pastoral leader initiated the 20-minute "power-teaching" group sessions with a prayer, which often was accompanied by hymns.

Outreaches were offered virtually during the pandemic, then in-person monthly at rotating church sites and repeated one year later. The brief Montreal Cognitive Assessment (Mini-MoCA) instrument was used to screen for mild cognitive dysfunction to test fluency, orientation and recall.

Findings showed that ADRD diagnoses increased from 0.9% pre-intervention to 24.3 percent post-intervention. Of the 235 total participants, 55.3% received a referral for additional cognitive testing, diagnosis and treatment as appropriate.

African Americans had lower Mini-MoCA recall scores and Afro-Caribbean participants had lower Mini-MoCA fluency scores than non-Hispanic white participants. African American and Afro-Caribbean participants had higher odds of being referred to a primary care provider than white non-Hispanic participants.

In addition, there was a substantial increase from pre- to post-test basic knowledge AD, which was significantly different by ethnic group. The largest increase in basic knowledge was seen in Afro-Caribbean participants and the smallest increase was seen in African American participants.

"Rural populations are likely to be less informed about Alzheimer's disease and related dementias due to limited access to education, public awareness campaigns and health care as well as limited digital literacy and insufficient access to the internet," said Lisa K. Wiese, Ph.D., senior author and an associate professor, Christine E. Lynn College of Nursing.

Contrary to published evidence that racially and ethnically diverse middle age and older adults are unwilling to participate in cognitive screening, researchers found their faith-based approach was successful in engaging rural residents in learning about risk factors and risk reduction.

"There are many benefits of early screening, such as distinguishing symptoms from other potentially preventable causes, allowing for time to initiate medications to manage symptoms that are more effective when started earlier in the disease process, and providing time for long-term care planning," said Christine L. Williams, DNSc, co-author and professor emeritus, Christine E. Lynn College of Nursing.

Importantly, this community-based effort is now being sustained independently of this research, with support by Palm Health Foundation, and a robust group continues to meet weekly to pursue the goals of increasing brain health awareness, educational interventions, chronic disease screenings and follow-up.

"An effective faith-based community approach grounded in trust between research teams and rural residents will be particularly important as the rapidly emerging science of ADRD prevention, detection and treatment is expected to produce important breakthroughs," said Wiese. "Ultimately, we need to 'build hope for quality of life while living with ADRD,' particularly in often-forgotten rural settings."

More information: Lisa Kirk Wiese et al, Testing the 'Faith Moves

Mountains model' to increase Alzheimer's disease awareness, detection, and diagnosis among rural, racially, and ethnically diverse older adults, *Aging & Mental Health* (2023). DOI: 10.1080/13607863.2023.2294062