

# Virtual reality may help students experience life with dementia first hand

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Virtual reality technology gives high school students greater insight into what it's like to be Alfred—a 74-year-old African American man with suspected mild cognitive impairment (MCI), plus age-related vision and hearing loss, or Beatriz, a middle-aged Latina, as she progresses through the continuum of Alzheimer's disease.

By experiencing aspects of someone else's journey, the students may gain a better understanding of, and empathy for, older adults and their struggles with dementia. Details of the virtual reality learning program were reported today at the Alzheimer's Association International Conference (AAIC) 2018 in Chicago.

The virtual reality (VR) simulation was incorporated into a training program for about 20 high school students at Northside College Preparatory School in Chicago. Used as part of the Bringing Art to Life program, the goal of the VR training was to better prepare the young people to interact with older adults with Alzheimer's and other dementias at long-term care facilities and adult day care centers. The Alfred and Beatriz modules will next be used with undergraduate students volunteering in the Bringing Art to Life program at the University of Alabama next spring.

Daniel C. Potts, MD, FAAN, of the University of Alabama, Tuscaloosa, is a neurologist who created the Bringing Art to Life Program after his father was diagnosed with Alzheimer's disease. Potts found his father had a talent for watercolor painting during his art therapy at an adult day

care center.

"What we're hearing from the students is that experiencing the virtual reality training before they volunteer improves their empathy and increases enthusiasm for working with the seniors—two documented outcomes of our program," said Potts. "It also may decrease the stigma and their negative attitudes about older people." It has also increased interest in health care careers among the students.

The Alfred module is a live-action film, depicting the world as experienced by a 74-year-old with MCI, macular degeneration and high frequency hearing loss. The Beatriz module includes five-minute stories of a middle-aged Latina as she experiences the early, middle and later aspects of Alzheimer's disease dementia. The stories take the participant through a digital version of what it's like to be at the grocery store, struggling with other activities of daily living and sundowning—when dementia-related confusion and agitation get worse later in the day.

"Technology like this may be useful in expanding awareness about what it is like to have Alzheimer's disease dementia," said Beth Kallmyer, MSW, Vice President of Care and Support for the Alzheimer's Association. "It's interesting that the creators of the modules also highlight other issues that some people experience as they age, including communicating inappropriately with others because they may not be able to see or hear well, in addition to the memory problems that are common for persons with Alzheimer's."

Neelum Aggarwal, MD, of Rush University Medical Center, Chicago, helped Shaw develop the Beatriz module and how to visualize what is happening in the brain with Alzheimer's disease. "I'm often asked—what does it feel like to have dementia? These virtual reality modules can help others experience that," said Dr. Aggarwal. "For the students, it's a good check to see if they have empathy for their patients and are aware of any

biases they may have towards people with dementia."

Rush will recruit 60 medical and pharmacy students and research assistants to participate in [virtual reality training](#) and the Bringing Art to Life program this September in Chicago. Dr. Aggarwal also works with Chicago Methodist Senior Services who use the virtual reality modules for training staff to better understand what it feels like to have dementia and build empathy.

The creator of the virtual reality modules, Carrie Shaw of Embodied Labs, Los Angeles, became a caregiver in her teens when her mother was diagnosed with Alzheimer's disease. "I wanted to understand what my Mom was going through with this disease and [virtual reality](#) allows us to recreate some of the perspective of someone living with Alzheimer's," said Shaw.

"Every patient is a person and has a story," notes Shaw. "We want to help explain the science of what's happening in the brain with the story of the person who has the dementia that will allow caregivers to be better providers and communicators."

Provided by Alzheimer's Association

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