

The Alzheimer's Poetry Project

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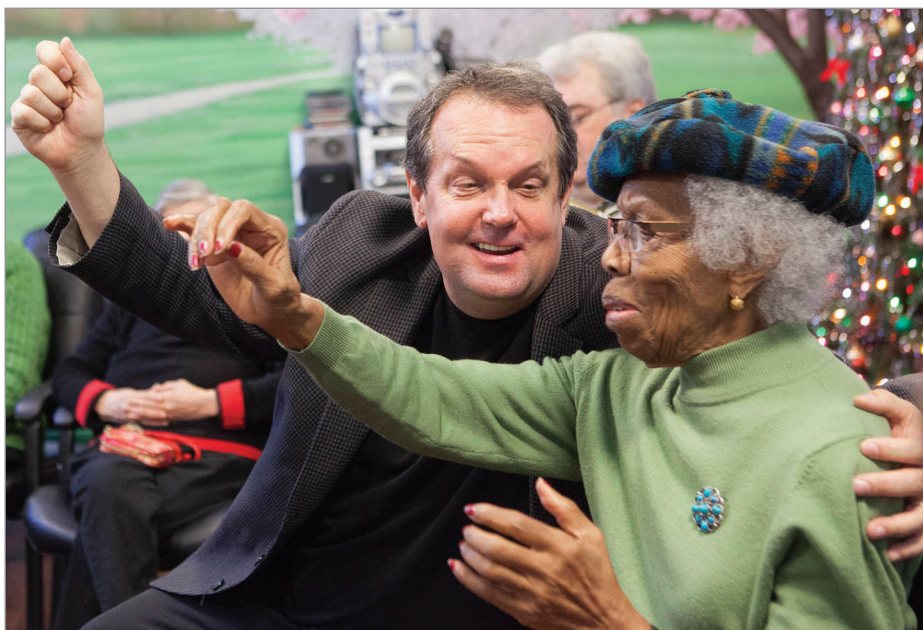
By 2050, the number of people aged 65 years and older with dementia is estimated to increase from 5.3 million to a projected 13.8 million.¹ Pending effective treatment,² there is a need to meet the cognitive and behavioral needs of these patients, and participatory group interventions grounded in the cultural arts (eg, dance, music, poetry, storytelling, and theater improvisation) are a possible approach.³ The Alzheimer's Poetry Project (APP)⁴ is one such program, a nonpharmacological intervention for groups of people with dementia in which a trained facilitator uses poetry to inspire creative self-expression, reduce social isolation, and provide social and intellectual stimulation.

The concept for the APP began in 1997 when poet Gary Glazner received a grant from Poets & Writers to create a poetry workshop at an adult day care center. His idea, to bring classic poems people learned as children to their dementia care setting, was validated when Glazner recited the opening of Henry Wadsworth Longfellow's poem "The Arrow and the Song" to the adult day care group. Glazner observed a man sitting with his head down, seemingly unaware of his surroundings, but after hearing the first line of the poem, "I shot an arrow into the air," the man's eyes popped open, and he called out the next line, "It fell to earth, I knew not where." The moment suggested that poetry could be useful for stimulating communication, decreasing isolation, and possibly exercising remaining memory capacity for people with dementia. Glazner formally founded the APP in 2003, and it has grown continually since. In 2017, the APP produced 466 sessions,

served 10 732 people with dementia, and is now staffed by Glazner as executive director, 2 regional directors, 6 teaching artists, and 4 volunteers.

A typical APP session is an hour in length. Facilitators and participants recite poems, combine poems and songs with movement, and create original works of poetry around themes (eg, springtime, birds and flight, and even superheroes). One signature feature of APP sessions is call and response activity, in which the facilitator calls out a line ("Once upon a midnight dreary") and the group repeats it. By asking participants to join voices in repeating a line of poetry participants are encouraged to shed some measure of isolation, tap established long-term memories, and possibly nurture short-term memory through auditory sense memory pathways of the primary auditory cortex and echoic memory storage pathways involving prefrontal cortex regions.^{5,6}

One can find call and response across cultures and traditions. Soldiers learn to move in unison with marching cadences. Fans at sporting events use echoing chants to cheer for favorite teams. Protest leaders guide demonstrators to repeat calls to action. Religious ceremonies are replete with call and response traditions, including the Catholic liturgy, gospel services, and marriage vows. Call and response is infused in blues, gospel, jazz, and hip-hop music. Importantly, it is often used in teaching to facilitate language mastery across all ages and is the central tool of secondary language acquisition both in face-to-face classroom instruction and self-study programs. Such frequent and effective utility



Gary Glazner encouraging a participant to enjoy poetry through call and response exercises. Photo by Michael Hagedorn.

in promoting language development and memory raises the question of the potential value of call and response for language maintenance in the context of dementia.

Understanding how call and response works at a neurological level may help to explain the phenomena observed in APP sessions where participants with dementia echo lines of poetry, recall poems learned in their youth, and remember events from prior sessions. According to the Atkinson-Shiffrin theory memory model, memory comprises 3 major components: sensory, short-term or working, and long-term memory⁷. Echoic memory, one of the sensory memory systems, provides the ability to recapture the exact impression of a sound shortly after it is finished. When people with dementia repeat a line of poetry, they may be demonstrating maintenance of the ability to access the phonological loop responsible for processing auditory and verbal information. Additionally, Shetake and colleagues used vagus nerve neuromodulation with exposure to tonal stimuli in an animal model to enhance cholinergic and noradrenergic transmission and induce plasticity in neurons of the auditory cortex.⁸ An intriguing question raised through these activities is whether interventions using call and response could promote plasticity in the human auditory cortex and in sensory memory systems.

An anecdote conveys the effects an APP session can have on groups of people with dementia. A participant responded to a performance of Edward Lear's poem "The Owl and the Pussy-Cat" by singing a Frank Sinatra-like rendition of "Fly Me to Moon."⁹ For this participant, the third repetition of *moon* in the Lear poem ("Hand in hand, on the edge of the sand, they danced by the light of the moon, the moon, the moon") was a cue for spontaneous word association and singing of "Fly Me to Moon," except the individual modified the "Darling kiss me" lyric to "Don't you kiss me!" As the group repeatedly performed the medley, alternating between chanting the poem and singing the song dozens of times, most of the participants were able to anticipate the lyric change in subsequent repetitions and would join in by wagging their fingers while loudly and playfully singing "Don't you kiss me!" They would then shrug, pout, and ask, "Why not?" Importantly, most participants were able to recall and anticipate the joke and songs over several sessions, and it is not uncommon for APP facilitators to observe that large groups of participants, likely with varying degrees of cognitive impairment, are able to enjoy interactions that are dependent on their recall of experiences from prior APP workshops. Whether or not the group's behavior constitutes formation of new memory, it illustrates social engagement and humor that would be unrealized in the absence of the group's sharing of poems and songs.

Since 2003, the APP has conducted poetry sessions in 32 states and 7 countries in different cultures and languages including English, German, Hmong, Polish, Korean, Japanese, Mandarin, and Spanish. In thousands of sessions spanning more than 15 years of APP programming, facilitators have consistently reported observable improvements in participant attention, engagement, communication skills, and mood, and have observed the appearance of creation of new memories as par-

ticipants demonstrate the ability to recall activity content across poetry sessions. Currently, the APP is undertaking research to document and understand these observed changes, study the effects of leading APP sessions on the beliefs of nursing home staff and high school students trained to facilitate the intervention, and pilot test a behavioral observational technique. The APP is seeking research partners to better understand neurological correlates of poetry session participation and to assess if participation has any measurable effects on memory.

Reciting poetry is unlikely to change the progression of dementia, but it can help change the narrative of how unaffected individuals and society perceive dementia. Changing that narrative to include examples of creativity and moments of joy, and the tantalizing possibility that it can positively affect the consolidation of new short-term memories into long-term memories, alters the perception of dementia from an experience defined by isolation and lost personhood to one of social vitality and enduring personhood. This shift may help combat the stigma of memory loss¹⁰ and promote more humane and effective care environments and therapeutic strategies for working with these patients.

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Additional Contribution: We thank the patient and her family for granting permission to publish her photograph.

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