

PREVENTION IN ACTION

Promoting Creative Engagement in the Elderly

PERSPECTIVE

Encouraging creative engagement in older adults is a good strategy to maintain or improve mood and morale, although there is not yet enough research to show its indisputable efficacy.

Regarding the issues of mild cognitive impairment or decline, especially with memory loss caused by Alzheimer's disease, the jury is still out because of the lack of quality science.

Many of the studies that demonstrate that older adults who are involved in participatory, community-base arts programs (music, art, storytelling, jewelry making, etc.) have improved memory and problem solving, and reduced rates of depression, anxiety, and so forth are promising, but much more evidence



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needs to be accumulated before they can be recommended universally based on their scientific efficacy, particularly in patients with Alzheimer's disease.

As the brain is capable of neurogenesis, it might be that activities that increase the brain's capacity might be protective of degenerative brain diseases, because the more brain a person has, the more he or she can afford to lose. However, based on the evidence, these interventions have not yet been shown to stop or prevent the pathophysiologic process in Alzheimer's disease.

One of the persistent, pervasive problems hampering this area of research is that the definitions used by scientists to define mild cognitive impairment are varied, making the comparison between studies difficult. There also hasn't been much work solidly connecting mild cognitive impairment with Alzheimer's disease.

Those of us in the baby boom generation are terrified of developing dementia, and, as a result, there is a tremendous push to discover how cognitive decline from Alzheimer's disease can be staved off. Great care has to be taken, however, not to exploit this vulnerability by promising that services, products, or activities will prevent cognitive decline without the necessary quality science to back up the claims.

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Creative engagement is to the aging brain as physical activity is to the aging body. Just as studies have shown older adults who maintain higher levels of muscle strength, flexibility, and aerobic capacity are healthier and better able to preserve their independent function longer than their more sedentary peers, an emerging body of literature suggests that those who engage in creative activities exhibit increased psychological well-being.

For example, findings from the federally funded Creativity and Aging study spearheaded by the late Dr. Gene D. Cohen and colleagues in the Center on Aging, Health, and Humanities at George Washington University, Washington, showed that participation in community-based cultural programs improved both the general health and mental health of older adults.

Specifically, the study recruited 300 healthy, ambulatory, older adults between the ages of 65 and 103 in New York, Washington, and San Francisco. Half of the participants were assigned to participate in professionally conducted arts programs, such as singing, creative writing, poetry, painting, or jewelry making, while the other half maintained usual activity.

Results from the Washington group showed that, after 2 years, the arts group reported better overall physical health, fewer doctor visits, fewer falls, and better scores on depression and loneliness scales. Additionally, the authors noted that participation in the community-based arts activities had a positive impact on the individuals' ability to maintain their independence by reducing the risk factors "that drive the need for long-term care" (*Gerontologist* 2006;46:726-34).

Other studies have produced similar findings. In 1999, Frederick Tims, Ph.D., professor and area chair of music therapy at Michigan State University, East Lansing, reported the results of the Music Making and Wellness Project in which the investigators compared the well-being of 61 older adults who were assigned to participate in group keyboard lessons with that of a control group of similar aged adults who did not participate. After the music intervention, the keyboard group showed significant decreases in anxiety, depression, and loneliness, and increasing levels of human growth hormone—which has been implicated in a range of age-related health conditions.

In 2004, investigators in the psychology and theatre departments at Elmhurst (Ill.) College, evaluated the impact that a short-term theater arts intervention had on the cognitive and affective functioning of older adults living in the community. A total of 124 participants aged 60-86 years were assigned to one of three groups: theater arts, non-content specific visual arts, and no treatment. After 4 weeks, the adults in the theater arts group improved sig-

nificantly more than the no-treatment control group in each of the four measures: word recall, memory, problem solving, and psychological well-being.

Adults in the visual arts group showed smaller improvements relative to the control group, according to the authors. Four months after the study, the theater group had maintained their performance improvements across all measures, they wrote. The authors concluded that theater training, even over a short time period, can help prevent cognitive decline associated with aging (*J. Aging Health* 2004;16:562-85).

Creative engagement also can improve the quality of life for adults with Alzheimer's disease and other age-related dementias. In an observational study published in 2005 in the *American Journal of Alzheimer's Disease and Other Dementias*, the well-being of 12 older adults with dementia improved while participating in an art program called Memories in the Making than they did during more-traditional adult day care activities.

Specifically, participants in the program, which encourages self-expression through the visual arts for adults in the early and middle stages of dementia, exhibited significantly more interest, sustained attention, pleasure, self-esteem, and normalcy during the intervention period (*Am. J. Alzheimer's Dis. Other Dement.* 2005;20:220-7).

More recently, researchers from the University of Wisconsin's Center on Age and Community in Milwaukee reported that participation in a group storytelling program called TimeSlips, developed by the center's executive director Anne Basting, Ph.D., improved the alertness and level of engagement among individuals with dementia living in long-term care settings, compared with a control group of peers from nonparticipating facilities. The researchers also observed improved staff-resident interactions, social interactions, and social engagement in the participating centers (*Gerontologist* 2009;49:117-27).

Using the arts and creative engagement "gives us a way to focus on remaining strengths and even growth during a time that is perceived as an inevitable and total decline, which in turn brings meaning and hope to families and care providers alike," Dr. Basting said in an interview.

The link between creative engagement and positive psychosocial outcomes in older adults can likely be attributed to multiple mechanisms. It is possible, according to Roberto Cabeza, Ph.D., professor of psychology and neuroscience in the Center for Cognitive Neuroscience at Duke Uni-

versity, Durham, N.C., that participating in activities that challenge the mind, such as artistic expression "stimulates the growth of new brain cells in the cerebral cortex." Even as we age, he said, "the creation of new neuron networks continues."

Susan H. McFadden, Ph.D., professor of psychology at the University of Wisconsin, Oshkosh, and coauthor with Dr. Basting of a paper titled "Healthy Aging Persons and Their Brains: Promoting Resilience Through Creative Engagement" published in February (*Clin. Geriatr. Med.* 2010;26:149-61), believes that one of the most fundamental mechanisms is the "sense of social connectedness" that comes from working together on projects related to the arts.

Other possible contributors are "the physical activity in some of these programs, the sense of optimism people feel about working together on something they all think is important, the positive emotions they experience,

and a sense of mastery and hopefulness that comes from investing yourself in something important," she said in an interview. "All of these have positive effects on the immune system, the endocrine system, and the nervous system."

She said several organizations support creative engagement with well and frail older adults, and several well-known programs target this population. The University of Wisconsin Center on Age & Community Web site has an extensive list of products and resources, including free, downloadable white papers on this issue (www.aging.uwm.edu), and the National Center for Creative Aging has a toolkit called Creativity Matters that is free and downloadable on its Web site (www.creativeaging.org).

Also, she said, the Society for the Arts in Healthcare is in the process of putting together a primer aimed at helping artists learn how to work with frail older adults; the Museum of Modern Art, New York, has an elegant book called "Meet Me: Making Art Accessible to People with Dementia" that seeks to help museums begin education programs for people with dementia; and a book by John Zeisel, Ph.D., addresses the arts as part of a full treatment plan that also includes assessment of the environment ("I'm Still Here" [New York: Avery, 2009]).

In her book, "Forget Memory: Creating Better Lives for People With Dementia" (Baltimore: Johns Hopkins University Press, 2009), Dr. Basting highlights a range of arts programs designed for the elderly. ■

By Diana Mahoney. Share your thoughts and suggestions at cpnews@elsevier.com.

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