VITALITY ARTS RESOURCE GUIDE

Inspiration, Research and Organizations Leading the Field of Creative Aging
AROHA PHILANTHROPIES MISSION

Inspiring Creative and Fulfilling Lives

OUR VISION

Aroha Philanthropies is devoted to the transformative power of the arts and creativity, inspiring vitality in those over 55, joy in children and youth, and humanity in adults with mental illness. We believe that learning, making and sharing art enriches everyone throughout their lifetime.

Aroha Philanthropies works to improve the quality of life of people 55+ by encouraging the funding, development and proliferation of arts programs designed to enhance longer lives, and by advancing the development of professional teaching artists working with those in their encore years.
VITALITY ARTS RESOURCE GUIDE

Aroha Philanthropies developed this Resource Guide to help others learn about the emerging field of creative aging. While it is not exhaustive, it provides a strong platform to find inspiration, discover current research, and locate leading organizations in the field throughout the country. We will continue to add to the Guide, share it on the Aroha Philanthropies website, and welcome additions and suggestions from the field.

ABOUT VITALITY ARTS

Vitality:
The power to live or grow
The capacity to continue a meaningful or purposeful existence
The state of being strong and active; energy

The broad field of creative aging encompasses many things: arts education, arts in health care, creativity for those with dementia, and more.

Arts education programs - those that inspire and enable older adults to learn, make and share the arts in ways that are novel, complex and socially engaging - make up a subset of the creative aging field. Often referred to as artful aging programs, they are led by teaching artists whose creative process and understanding of older adults bring connection, improved health and well-being, and a renewed sense of purpose to older adults in community and residential settings.

At Aroha Philanthropies, we've come to view these programs as even more than artful aging. With the term Vitality Arts, we aim to champion arts programs that keep us vital, joyful and engaged by unleashing the transformative power of creativity in those 55+.

INSPIRATION

Aroha Philanthropies created a three-minute animated video entitled “The Wall” to inspire us to think differently about aging. It is free and available to anyone. Please consider sharing it at creative aging programs, on your organization’s website, on social media using #VitalityArts, in discussions of aging and the arts, or in any setting in which positive, new views of aging are encouraged.

The video can be viewed on the Foundation’s website at arohaphilanthropies.org and can be downloaded from https://vimeo.com/122458609.

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*Neurology and Preclinical Neurological Studies*  
“Who Me, Ageist?” 92-105  
Ashton Applewhite
ARTICLES + BOOKS

“FINDING SUCCESS, WELL PAST THE AGE OF WUNDERKIND”
Profiles of professional artists.

“ARTS AND AGING: AMAZING!”
Minnesota GoodAge | December 2014
Why a retired attorney returned to the guitar.
Included on pages 20-27: http://issuu.com/mngoodage/docs/ga_1214_web

“FIND YOUR INNER ARTIST”
Healthy Aging | Summer 2014
Profiles of late starters in the arts.
Included on pages 28-39

“ARTS COLONIES OFFER A CREATIVE, WHOLE-PERSON WELLNESS ALTERNATIVE FOR INDEPENDENT LIVING”
Marilynn Larkin, MA
The Journal on Active Aging | May/June 2015
Included on pages 40-47.

“CRITICAL PERSPECTIVES: CREATIVE ENVIRONMENTS THAT REVOLUTIONIZE AGING”
Guild Notes | National Guild for Community Arts Education
Ellen Hirzy | Issue 3, 2015
Included on pages 48-50.

ART BEFORE BREAKFAST: A ZILLION WAYS TO BE MORE CREATIVE NO MATTER HOW BUSY YOU ARE
Danny Gregory | Chronicle Books, 2015
Available for purchase here: www.chroniclebooks.com/titles/art-before-breakfast.html

Artwork by Barbara Broadbent
“TO AGE WELL, CHANGE HOW YOU FEEL ABOUT AGING”
Anne Tergesen | Wall Street Journal, October 19, 2015
http://www.wsj.com/articles/to-age-well-change-how-you-feel-about-aging-1445220002

DOES CREATING ART MAKE PEOPLE HAPPIER?
Salem Tsegaye and John Carnwath | June 26, 2016
http://createquity.com/2016/06/does-creating-art-make-people-happier/?utm_source=feedblitz&utm_medium=FeedBlitzRss&utm_campaign=createquity

SPECIAL REPORT | ARTFUL AGING
Next Avenue | July 1, 2016
For too long, old age has been associated with negative images, words and ideas. This special report examines what happens to those who connect aging and art.
www.nextavenue.org/special-report/artful-aging/

(ENG)AGING WITH THE ARTS HAS ITS BENEFITS
Createquity | November 2, 2016
In fact, the best evidence we have of the arts’ impact is that they make older adults feel better.

“THIS CHAIR ROCKS: PUSHING BACK AGAINST AGEISM”
Ashton Applewhite
www.thischairrocks.com

“YOU BECOME BETTER WITH AGE”
ARTNEWS | May 2013
Profiles of artists who achieved success late in life.
www.artnews.com/2013/05/20/making-art-after-8/

FILM + VIDEO

STILL DREAMING
Documentary about a group of elderly Broadway actors, musicians and dancers who take on a production of “A Midsummer Night’s Dream”.
www.stilldreamingmovie.com

“LIFE’S THIRD ACT”
Jane Fonda’s TED talk on aging.

YOUNG@HEART
Documentary about a British chorus of older adults who perform rock music.
www.youngatheartchorus.com/film.php

THE BEST EXOTIC MARIGOLD HOTEL
Feature film about a group of retirees who move to India.
www.foxsearchlight.com/thebestexoticmarigoldhotel/

ALIVE INSIDE
Documentary about the astonishing impact of music on people with memory loss.
https://www.youtube.com/watch?v=IaB5Egej0TQ

QUARTET
Feature film about residents of a home for retired opera singers.
www.bbc.co.uk/bbcfilms/film/quartet

CAPTURING GRACE
Documentary about Dance for PD which brings modern dance to people with Parkinson’s Disease.
www.capturinggracefilm.com
“GOLDEN OLDIES: A LIP-SYNCHING EXTRAVAGANZA”
CBS Morning News | February 1, 2015
91-year-old directs a Broadway-style show in a retirement community.

SENIORS GETTING LATE-LIFE ARTS EDUCATION
CBC News | May 2016
California non-profit EngAGE is offering seniors free college-level arts courses, which could improve cognitive function and well-being.
https://www.youtube.com/watch?v=azEwpqLU5w

There is a fountain of youth: it is your mind, your talents, the creativity you bring to your life and the lives of people you love.

Sophia Loren
RESEARCH SUPPORTING CREATIVE AGING

“PARTICIPATORY ARTS FOR OLDER ADULTS: A REVIEW OF BENEFITS AND CHALLENGES”
Included on pages 51-64: www.ncbi.nlm.nih.gov/pubmed/24336875 (ABSTRACT)
www.gerontologist.oxfordjournals.org/content/early/2013/12/10/geront.gnt138.full.pdf (FULL TEXT)

“The Creativity and Aging Study: The Impact of Professionally Conducted Cultural Programs on Older Adults”
Final Report | 2006

“Making Art Tied to Fewer Cognitive Problems in Old Age”
Pacific Standard | April 8, 2015

“At the Intersection of Arts and Aging”
National Institute on Aging | 2013
Included on pages 77-79: www.nia.nih.gov/newsroom/features/intersection-arts-and-aging

“Brain Theatre: A Psychologist and an Actor Examine the Impact of Acting Classes on Aging”
Elmhurst College, Student and Faculty Research
Included on pages 80-82: www.elmhurst.edu/magazine/research/7635746.html

“The Arts and Human Development: Framing a National Research Agenda for the Arts, Lifelong Learning, and Individual Well-Being”
2011
www.arts.gov/sites/default/files/TheArtsAndHumanDev.pdf
RESEARCH SUPPORTING CREATIVE AGING

“THE EFFECTS OF CHORAL SINGING ON OLDER ADULTS”
Julene K. Johnson, PhD, Institute for Health & Aging at University of California, San Francisco | 2013
www.arts.gov/art-works/2013/effects-singing-older-adults

“STUDY SAYS MAKING ART IS GOOD FOR YOUR BRAIN, AND WE SAY YOU SHOULD LISTEN”
2013
www.huffingtonpost.com/2014/07/08/how-art-changes-your-brain_n_5567050.html

“CREATIVITY IN LATER LIFE”
www.maturitas.org/article/S0378-5122(14)00194-7/pdf

DANCE FOR PD
Neurology and Preclinical Neurological Studies
Brooklyn, NY
Included on pages 83-91: www.dl.dropboxusercontent.com/u/62847270/Website/Dance%20for%20PD%20JNT%20FINAL.pdf

THE SUMMIT ON CREATIVITY AND AGING IN AMERICA
National Endowment for the Arts

COMPARISON OF WELL-BEING OF OLDER ADULT CHOIR SINGERS AND THE GENERAL POPULATION IN FINLAND: A CASE-CONTROL STUDY
Musicae Scientiae | April 2016

Creativity can release you from the limitations that the world has constructed around you.
Robert LaSardo

WHOM DO ARTS BENEFIT MOST? OLDER ADULTS
Heidi Raschke | November 28, 2016
www.nextavenue.org/arts-medicine-aging/

CREATIVE HEALTH: THE ARTS FOR HEALTH AND WELLBEING
All-Party Parliamentary Group on Arts, Health and Wellbeing
July 2017
www.artshealthandwellbeing.org.uk/appg-inquiry/

BRAIN HEALTH FOR A SONG-AGING AND THE ARTS
Caribbean Today/New America Media, Dawn Davis
August 31, 2017

NEW REPORT REVEALS FINDINGS ABOUT THE ARTS AND HEALTH IN OLDER ADULTS
National Endowment for the Arts | September 7, 2017
LEADING PROGRAMS IN CREATIVE AGING

*ALZHEIMERS POETRY PROJECT
Brooklyn, NY
www.alzpoetry.com

*DANCE FOR PD
Brooklyn, NY
www.danceforparkinsons.org

ELDERS SHARE THE ARTS
Brooklyn, NY
www.estanyc.org

ENCORE CREATIVITY
Washington, DC
www.encorecreativity.org

ENGAGE
Los Angeles, CA
www.engagedaging.org

“EXPERIENCE TALKS: A RADIO MAGAZINE FOR THE EXPERIENCED LISTENER”
A program of EngAGE.
www.engagedaging.org/experience-talks/

MACPHAIL CENTER FOR MUSIC, “MACPHAIL MUSIC FOR LIFE (MMFL)”
Minneapolis, MN
http://www.macphail.org/community-programs/macphail-music-for-life/

* “MEET ME,” THE MOMA ALZHEIMER’S PROJECT: MAKING ART ACCESSIBLE TO PEOPLE WITH DEMENTIA
New York, NY
www.moma.org/meetme/

NEXT AVENUE: WHERE GROWN-UPS KEEP GROWING
A service of PBS.
www.nextavenue.org

Artwork by Tilda Mann
LEADING PROGRAMS IN CREATIVE AGING

Creative aging programs designed specifically for older adults with cognitive decline and/or chronic diseases.

SAN FRANCISCO COMMUNITY MUSIC CENTER
San Francisco, CA
http://sfcmc.org/classes/choirs-for-older-adults/

STAGEBRIDGE THEATER COMPANY
Oakland, CA
www.stagebridge.org

* TIMESLIPS
Milwaukee, WI
www.timeslips.org

YOUNG AT HEART CHORUS
Florence, MA
www.youngatheartchorus.com/index.php

Creativity is putting your imagination to work, and it’s produced the most extraordinary results in human culture.

Ken Robinson
CREATIVE AGING SERVICE ORGANIZATIONS

NATIONAL CENTER FOR CREATIVE AGING
Washington, DC
www.creativeaging.org

NATIONAL GUILD FOR COMMUNITY ARTS EDUCATION
New York, NY
www.nationalguild.org

LIFETIME ARTS
New York, NY
www.lifetimearts.org
FURTHER READING

BOOKS

**THE MATURE MIND: THE POSITIVE POWER OF THE AGING BRAIN**
Gene D. Cohen, PhD | 2006

**A LONG BRIGHT FUTURE**
Laura L. Carstensen, PhD | PublicAffairs, 2011

**THE VINTAGE YEARS: FINDING YOUR INNER ARTIST (WRITER, MUSICIAN, VISUAL ARTIST) AFTER SIXTY**
Francine Toder, PhD | Aziri Books, 2012

Artwork by Michael Conroy
OTHER RESOURCES

“THOUGHT LEADER FORUM ON ARTS AND AGING”
Grantmakers in the Arts
Suzanne Callahan and Diane Mataraza, 2011

“CREATIVITY MATTERS: THE ARTS AND AGING TOOLKIT”
www.artsandaging.org/index.php

“WHO ME, AGEIST?”
Ashton Applewhite
Included on pages 92-105: www.thischairrocks.com/blog/

CREATIVE AGING TOOLKIT FOR LIBRARIES
www.creativeagingtoolkit.org

ADMINISTRATION ON AGING (AOA), PROFILE OF OLDER AMERICANS
2014

GAINING MOMENTUM, A FRAMEWORKS COMMUNICATIONS TOOLKIT
FrameWorks Institute, 2017
www.frameworksinstitute.org/toolkits/aging/

AGEING ARTFULLY: OLDER PEOPLE AND PROFESSIONAL PARTICIPATORY ARTS IN THE UK
The Baring Foundation
David Cutler, September 2009

CREATING CONNECTION
Arts Midwest, 2017
www.creatingconnection.org

BUILDING COMMUNITY THROUGH ARTS AND CULTURE
Age-Friendly NYC’s Media, Arts and Culture Working Group and The New York Academy of Medicine, 2018
goo.gl/DtU1a1

FURTHER READING

“Creativity is a continual surprise.”
Ray Bradbury
“FINDING SUCCESS, WELL PAST THE AGE OF WUNDERKIND”
AS a girl growing up in Jamaica, Queens, Lucille Gang Shulklapper dreamed of being a writer and “having a househusband like Edna St. Vincent Millay.”

Life didn’t unfold quite that way. Instead of having a literary career, she married, took a teaching job and raised three children. She wrote off and on, mostly for herself. But when she retired in her late 50s, “words came tumbling out of closets and drawers, leaking from rusty faucets and reappearing as character actors,” said Ms. Shulklapper, now 80. She began sending out poems and short stories, and published her first book of poetry in 1996, when she was 60.

Since then, she has published four chapbooks, which are typically small editions of 40 pages or so, and a fifth is in progress. And in January, Guardian Angel Publishing released Ms. Shulklapper’s first children’s book, “Stuck in Bed Fred.”

“I am living beyond my dreams,” said Ms. Shulklapper, a widowed grandmother of six who lives in Boca Raton, Fla. “I feel as though it’s my baby. A long pregnancy and now its delivery, all 10 toes and fingers.”

Conventional wisdom holds that if you do not write your “Farewell to
Arms,” paint your “Starry Night,” start the next Twitter or climb Mount Everest by young adulthood, or at least middle age, then chances are you will never do it.

But that idea is becoming increasingly outdated as people are not only having successes later in life, but blooming in areas they never expected. Maybe they are not making millions, or wielding a brush like Rembrandt. Still, many people are discovering that the latter part of their lives can be just as (or even more) rewarding creatively, emotionally and spiritually.

Examples of later-in-life triumphs abound. Ernestine Shepherd, for example, began bodybuilding (and running marathons) at age 56. Diana Nyad swam from Cuba to Florida at 64, after several attempts. Harland Sanders started his KFC empire in his 60s. Frank McCourt won a Pulitzer Prize for “Angela’s Ashes” when he was 66. Jurgen Schmidt, a retiree in Huntington Beach, Calif., and a Senior Masters swimmer, recently starred in a three-minute video for Speedo.

“A lot of what it comes down to — are you cognitively able to do it?” said James C. Kaufman, a professor of educational psychology at the University of Connecticut. “Most software developers don’t suddenly start at 60, But being open to new experiences is one of the biggest predictors of creativity.”

“We absolutely have to revamp this idea of a linear pattern of accomplishment that ends when you’re 50 or 60,” said Karl A. Pillemer, a professor of gerontology at Cornell University, and author of, most recently, “30 Lessons for Loving.” “There are simply too many examples of people who bloom late, and it’s the most extraordinary time of their life.”

Mr. Pillemer, who has interviewed more than 1,500 people age 70 and older for the Legacy Project at Cornell, found that a large number of people said they had achieved a life dream or embarked on a worthwhile endeavor after age 65. “There was this feeling of somehow ‘getting it right’ at 50 or 60 or older,” he said, noting that this sentiment applies to creative efforts, relationships and work.

Jan Hively, a retired educator in Yarmouth, Mass., agrees with that. “I’m doing my most meaningful work at 83,” Ms. Hively said.
In 2001, she earned her doctorate in education from the University of Minnesota. Since then, she has helped found three organizations dedicated to empowering older adults to lead productive lives. “My message is: meaningful work, paid or unpaid, through the last breath,” Ms. Hively said. “I’m always interested in thinking about what’s next.”

Researchers distinguish between crystallized (general knowledge) and fluid (problem solving) intelligence. Crystallized intelligence tends to grow over a lifetime, whereas fluid intelligence usually declines after a person reaches the late 20s. That’s why deciding to become a mathematician or a chess master at age 50 usually does not work. “It is generally very difficult to get a late start in a field that requires lots of fluid intelligence from the get-go,” said Dean Keith Simonton, a professor of psychology at the University of California, Davis and author of “The Wiley Handbook of Genius.”

However, Mr. Simonton points out, people differ at the rates and ages in which they acquire expertise. “Often people don’t even discover what they really want to do with their lives — or even where their talents might lie — until well past middle age,” he said. “Grandma Moses is the proverbial case.” (That’s Anna Mary Robertson Moses, better known as Grandma Moses, the renowned American folk artist.)

In his book, “Old Masters and Young Geniuses: The Two Life Cycles of Artistic Creativity,” David W. Galenson, a professor of economics at the University of Chicago, argues that there are two kinds of practitioners in most given fields: conceptual and experimental. Conceptual minds tend to be younger and typically better with abstractions. Experimental minds, on the other hand, take longer to gestate, working by trial and error. This helps explain why, for example, conceptual artist Pablo Picasso produced his greatest work at age 26, whereas Paul Cézanne created his at 67. “To say every discipline has its peak age is wrong,” Mr. Galenson said.

Of course, everyone has his or her own definition of “peaked.” Marjorie Forbes was a 68-year-old retired social worker when she began studying the oboe. Although she played the violin as a teenager, she had always wanted to play the oboe.
Now 81, Ms. Forbes said she initially was happy “tootling away” in her Manhattan living room. But as her prowess grew, so did her aspirations. After taking a music course at Oberlin College, she joined coached chamber ensembles at the 92nd Street Y and at Lucy Moses, a community arts school in New York.

Today, she considers herself a “medium good amateur.” “I can’t make money doing what I’m doing, but I think I’ve reinvented myself to do something I’ve always wanted to do,” Ms. Forbes said. “I never dreamed I’d get to be as good as I am.”

Her colleague, Ari L. Goldman, took up the cello in his 50s, but did not get really serious about it until age 60. Now 65 and a professor of journalism at Columbia University, Mr. Goldman says he has had several musical experiences that have taken him by surprise, including playing a duet with the concertmaster of the Philadelphia Orchestra. “I played a piece from the 3rd Suzuki book and he accompanied me,” he said. “That was my peak moment.”

Mr. Goldman also performs with the New York Late-Starters String Orchestra, for amateur musicians, and wrote a book, “The Late Starters Orchestra,” about learning an instrument later in life. “The people I met do it for fun, for pleasure,” he said. “We try to do our best, and if we get 40 or 50 percent of it we’re happy.”

Music wasn’t on Paul Tasner’s bucket list, but starting his own company was. For 35 years, Mr. Tasner, 69, worked for other people, but he always had entrepreneurial leanings. In 2009, he was laid off from his job as senior director of operations for a large cleaning products company. Rather than retire, he decided to make the leap.

He joined forces with an architect, Elena Olivari, and in August 2011, after many fits and starts, they opened PulpWorks Inc., a designer and manufacturer of sustainable packaging for consumer products.

“It’s been a struggle, no question — this country is not as green as people would like you to believe, and companies are not eager to make changes,” said Mr. Tasner, adding that they only recently began paying themselves. Still, they have landed some big accounts (including Groupon and T-Mobile), and they
are in negotiations for a partnership with Mohawk, a larger paper company in Cohoes, N.Y.

Ms. Shulklapper is working on another book of poems inspired by the rhythm of the treadmill. She bought a keyboard, which she studied as a child, and is writing and composing. Recently, she said, she met a “man friend.”

No one is more excited about her late-life renaissance. “There’s music in life,” Ms. Shulklapper said.

Correction: March 20, 2015
An earlier version of this article misstated the number of Lucille Shulklapper’s children. She has three, not two. The earlier version also misstated what type of intelligence describes general knowledge. It is crystallized intelligence, not fluid intelligence.

Correction: March 26, 2015
An article on Saturday about artistic achievements by older adults misstated the name of the musical institution whose concertmaster played a duet with Ari L. Goldman, who took up the cello later in life. It is the Philadelphia Orchestra, not the Philadelphia Symphony.

Make the most of your money. Every Monday get articles about retirement, saving for college, investing, new online financial services and much more. Sign up for the Your Money newsletter here.

A version of this article appears in print on March 21, 2015, on page B5 of the New York edition with the headline: Finding Success, Well Past the Age of Wunderkind.
“ARTS AND AGING: AMAZING!”

MINNESOTA GOODAGE
Participating in creative activities — such as music, dance, poetry, painting and other visual arts — can help ages 55 and older boost joy, improve health, fight depression and delay dementia.
Patrick Weber grew up in the 1960s, an exhilarating era that gave birth to The Beatles and The Rolling Stones. Attending middle school in Hibbing at the time, he was so inspired by the rock ’n’ roll movement, he decided to take guitar lessons at a local music shop. “I bought my own guitar with money I had from a paper route,” he said.

Guitar, however, wasn’t easy to learn. “I sold it when I was in my late 20s,” Weber said. “I didn’t play from that time forward.”

Fast-forward about three decades. Today Weber, a 63-year-old retired banking attorney living in Shoreview, has triumphantly reclaimed the guitar and is living his passion for music nearly every day.

He’s been playing guitar since 2010, thanks to weekly lessons at MacPhail Center of Music, based in Minneapolis, plus about five hours of practice a week. He boasts a repertoire of more than 30 songs, including *Give Me One Reason* by Tracy Chapman, *Wagon Wheel* by Darius Rucker and *Sweet Home Alabama* by Lynyrd Skynyrd.

“I thought it would be a good way to engage the brain,” Weber said. “Plus, I just really enjoy music.”

**WHY IT REALLY MATTERS**

Though Weber’s story may sound like a tale of a man exploring a long-lost hobby later in life, experts who study aging say what Weber is doing is extremely important for his overall health.

Engaging the brain in challenging creative activities in midlife
and beyond is an essential part of aging well, according to a growing group of neuroscientists.

 Being active in the arts, according to recent studies, can delay dementia, fight depression and improve overall health (or at least slow its decline), even into our 80s.

 Older adults who engage regularly in music, dance,  poetry, painting and other visual arts have been proven to age better, mentally and physically, said Tammy Hauser, interim executive director for ArtSage, a connector, a convener and a catalyst for arts and aging in Minnesota (formerly called the Minnesota Creative Arts and Aging Network).

 “Mastery of a skill forces your brain to make connections,” Hauser said, adding that the arts are especially powerful among the oldest of adults. “It’s more effective than a lot of medications.”

**RESEARCH ON ARTS, AGING**

Hauser has seen the arts change lives, but she’s also seen research that backs up the anecdotal evidence: According to a three-city study conducted by renowned geriatric psychiatrist Gene Cohen, George Washington University and the National Endowment for the Arts — *The Creativity and Aging Study* — arts-engaged older adults don’t just report better health outcomes. Participants in the three-year controlled study who were active in the arts (age 65 to 103 with an average age of 80) required fewer medications and doctor visits than the adults in the control group.

 They also suffered fewer falls.

 Why? Mastering artistic skills gave participants in the study a greater sense of control and also boosted their overall social engagement, according to the study, completed in 2006.

**USE IT OR LOSE IT**

Weber doesn’t need a research study to validate his reasons for playing guitar. He sought out music partly to keep his brain active in retirement. After a lifetime of daily work in the intense world of finance and law, he wanted to stay not just busy, but sharp. He also exercises five times a week.

“I think to be engaged both mentally and physically is extremely important,” Weber said.

Indeed, scientific evidence backs this use-it-or-lose-it philosophy.

In the PBS/TPT documentary *Arts & the Mind*, neuroscientist Dr. Jay Giedd with the National Institute of Mental Health cites the concept of neuroplasticity: Whether young or old, our brains’ neural-pathways constantly adapt to our experiences, especially if the experiences are mentally and physically engaging, such as dancing, painting, singing or playing an instrument.

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**Opportunities to discover the arts**

- **Alzheimer’s Poetry Project-Minnesota**, encourages the creativity of elders with memory loss through collaborative, joyful poetry programming. Contact director Zoe Bird at zozettebird@gmail.com or 612-432-9196; alzpoetry.org.

- **Beyond Ballroom Dance Company** offers lifelong-learning opportunities for older adults; beyondballroom.org.

- **COMPAS**, based in St. Paul, helps bring arts activities to all ages, including older adults in a variety of settings; compas.org.

- **History Theatre** in St. Paul offers storytelling and writing workshops for senior living facilities and community centers. History Theatre also offers on-site writing classes for older adults; historytheatre.com.

- **Kairos Alive!** is a Minneapolis-based performing and arts-learning organization offering award-winning intergenerational programming in participatory dance, music and story for older adults; kairosalive.org.

- **MacPhail Music for Life** is a newly expanded program for adults 55 and older looking for a comfortable and inviting place to pursue music, including individual and group lessons; macphail.org.

- **Minneapolis Institute of Arts** offers *Discover Your Story* tours designed for small groups of visitors with memory loss and their friends and caregivers; tinyurl.com/discoveryourstory.

- **Music & Memory** trains elder-care professionals how to set up personalized music playlists, delivered on iPods and other digital devices, for those in their care; musicandmemory.org.

- **Northern Clay Center** offers Art@Hand courses for ages 55 and older and their families; northernclaycenter.org.

- **VocalEssence** offers a variety of programs for older adults, including *Choral Pathways* and, coming in 2015, *Vintage Voices*, at senior centers and assisted living homes in the Twin Cities; vocalessence.org.
“The things that we do a lot, the brain will be optimized for those,” Giedd said in the documentary. “And the connections that we don’t use will wither and die.”

The same is true for young children, whose brains eliminate pathways that aren’t used through a process call competitive elimination, all part of adapting to life.

“It seems to be in place as long as we are alive,” Giedd said of the phenomenon of neuroplasticity. “There is no age too old to learn.”

**SATISFYING THE SILVER TSUNAMI**

This is all welcome news to anyone serving the baby boomer population, turning 65 at a rate of 10,000 people per day in the U.S., part of a worldwide demographic shift known as the Silver Tsunami.

In Minnesota, that means an estimated one-fifth of the state will be over age 65 by 2030.

Boomers — who are expected to live longer than previous generations — are looking for meaning and purpose not just in retirement but also in old age.

Hauser calls baby boomers “the younger old.” “They want engaging experiences,” Hauser said. “They’re demanding that.”

Though many facilities are ill-equipped to fill the need for sophisticated creative opportunities, ArtSage is working to change that by training a growing cadre of artists who are interested in working with older adults.

Community centers, libraries and senior housing facilities can contact ArtSage to learn how to offer programming that appeals to a wide variety of older adults. Coming soon is SageConnect, an interactive and searchable database that will function as a one-stop shop for the arts and aging community.

Creating successful arts programming for older adults is a new and special challenge, Hauser said.

Artistic endeavors for boomers and beyond must go beyond traditional crafts.

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Top: Teaching artist and mentor Joey Clark and artist May Lee-Yang participate in a training initiative organized by ArtSage, a catalyst for local arts-and-aging programming.

Bottom: Maria Genne works with older adults as part of her dance company, Kairos Alive!

Programming needs to be personal and tailored to individuals’ needs. Participants need venues for telling their own personal stories, Hauser said, adding: “There’s difference between (crafts) and writing a poem or creating a song and singing it.”
Personalized experiences, Hauser said, will go a long way to easing the feelings of loneliness, depression, loss and hopelessness that can come with aging.

Having a creative outlet can be especially beneficial for older adults, Hauser said. But younger boomers may find now to be an ideal time to start, especially couples whose children have left the nest.

“It’s a crucial piece of human development after age 55 when you’re trying to make meaning in your life,” Hauser said. “You have time. Maybe you didn’t have that early in your life. Maybe you’ve always wanted to draw or paint or sing. That’s what arts in aging celebrates.”

**DANCE: ENGAGING THE BODY**

Dance and movement can be particularly powerful for older adults, according to neuroscientist and pathologist Dr. Peter Davies at the Albert Einstein College of Medicine in New York. He’s studied Alzheimer’s for more than 35 years.

Davies believes the richest, most resilient parts of the brain are the centers responsible for the arts.

When interviewed for *Arts & the Mind*, Davies said: “The evidence says that participation in dance programs reduces the development rate of dementia by maybe 75 percent. There is no drug around or even on the horizon that can reduce the rate of Alzheimer’s or dementia by 75 percent.”

Maria Genne, the founder of Kairos Alive! a dance company in Minneapolis, said dance — even when done by older adults able to do movements only while sitting — can be life changing.

Dance, she said, has the capacity to reconnect older adults through the powerful experience of movement, touch and social interaction.

“Dance is cognitive, it’s social, it’s emotional and it’s physical,” she said as part of her interview in *Arts & the Mind*. “Dance is a body-brain exercise.”

**MINNESOTA LEADING THE WAY**

Minnesota’s arts organizations — including the Minneapolis Institute of Arts, History Theatre, Northern Clay Center, VocalEssence, Beyond Ballroom Dance Company, the Alzheimer’s Poetry Project of Minnesota, MacPhail and Kairos Alive! — appear to be at the forefront of the arts-and-aging trend in the U.S.

“Nationally, Minnesota is the leader,” Hauser said. “We really are at the very beginning of this. We’re building a movement.”

Many local arts organizations attended the first Midwest Arts and Aging Conference in St. Paul earlier this year. Organized by ArtSage, the conference also featured dozens of individual artists (trained by ArtSage) to meet the arts-education demands of memory-care facilities, adult-day programs, independent housing facilities, community centers and beyond.

Gary Glazner, the founder of the national Alzheimer’s Poetry Project, gave Minnesota’s burgeoning arts-and-aging movement a pat on the back in his keynote address at the conference.

“You should be really proud of your community and the work you are doing together,” Glazner said. “It really is rich here. Not all places are like this.”

**GETTING STARTED?**

Not sure what your creative outlet should be? Just start exploring and see what you find.

Weber’s advice: Don’t pursue something you don’t love or something that’s too easy.

Look around until you find the right fit.

“Find out what makes you happy and go for it,” he said. “The good thing about being retired is you can do whatever you want.”

Sarah Dorison is the editor of Minnesota Good Age magazine.

**RESOURCES**

*ArtSage* offers training programs, consulting services and online resources to encourage creative arts experiences for older adults; artsagemn.org.

*Creative Aging Toolkit for Public Libraries*, creativeagingtoolkit.org

*National Center for Creative Aging*, creativeaging.org

*Opening Doors*, opendoorstomemory.org
“FIND YOUR INNER ARTIST”

HEALTHY AGING
If you think you can play, you can.

This is the motto of the New York Late-Starters String Orchestra (NYLSO), and it is a welcoming mantra for those who have thought they might like to discover or re-discover their inner artist, no matter what the medium.

For Ari Goldman the Late-Starters group provided the gateway for his return to the cello, the instrument he had put aside 25 years ago. Goldman, a former New York Times reporter, tells his comeback story of how he has been able to recapture his passion for the cello in his book, The Late Starters Orchestra. His heart-warming, very personal journey can serve as an inspirational pep talk if you have wondered whether you should try an art form again or start for the first time.

Choose your artistic passion . . . musical instrument, painting, sculpture, singing? It’s all possible when you put away the excuses and just get started.

But do you need to devote 10,000 hours to become proficient in your art? Who has the time or dedication for that?

“The answer, of course, is no one,” says Goldman. “But then the goal of the late starter is not to be a virtuoso or prodigy (too late for that), but to be competent.”

Like many parents, Goldman came back to his music via his child. After a year and a half of sitting through his son Judah’s orchestra rehearsal, the cello began calling to him. “I was tired of being the schlepper and the chaperone. I wanted to be a player.”

Perhaps it was his boldness, developed over years in his position as a reporter, that led Goldman to jump into cello lessons by first securing a seat in his then 11-year-old son’s youth orchestra, sitting in on his private Suzuki lessons, and then joining the Late Starters Orchestra. He set a personal goal of performing in front of family.
and friends at his 60th birthday, just two years away. How he did it and what he learned can be applied to many an art form. What’s your passion? The late starters on the following pages might ignite a fire under you to discover the inner artist you’ve always had within you.

**David Katz, painter**

I owned my own retail operation for 24 years. During the time I owned it, I did all of my own graphics and point-of-purchase displays. When I sold my business I started to paint still lifes. I painted everything in my home.

Liz Osbourne, who is 78 now, was my neighbor and still is my mentor. Probably one of the best known artists in Philadelphia, she taught for 50 years at the Pennsylvania Academy of Fine Arts. Upon seeing my artwork she immediately enrolled me in their four-year certificate program. As they say, the rest is history.

I paint to music and really love the challenge that each new project brings me. I paint with passion. I have a goal for the viewer to feel the life in each piece. If that happens, then I have truly succeeded.

David Katz, a fine artist painting landscapes, portraits, still life, and pop art, is based in West Chester, PA. [www.davidkatzart.com](http://www.davidkatzart.com)

**Lisa Atchison, glass bead and jewelry artist**

In 2003, not long after discovering handmade art glass beads, I entered the world of lampworking and never looked back. I have been married to my best friend/husband for 31 years, and when our daughter decided to leave the nest, she unknowingly donated her room for my studio. I was completely hooked with the first light of the torch.

Lisa Atchison designs in her studio; David Katz stands before his large Hot or Cold oil painting; Isabel Taylor performing at a local venue.

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**TIPS FOR MUSICAL LATE STARTERS**

*By Ari L. Goldman*

Never pack away your instrument. Leave it out so you can get your hands on it when the spirit moves you. Play every day.

It's impossible to keep up with kids. Instead, find like-minded adults who are just a tad better than you are to play with.


Remember that practice makes the impossible possible.

Learn a favorite song and play it to death. That way if someone hands you an instrument, you can play at least a few bars of something.

Go to concerts. Listen to your devices. Surround yourself with the music you aspire to play.

Don’t spend a lot of money on your instrument. Spend it on a teacher with an abundance of patience and a sense of humor.

Record yourself playing. Don’t listen to it, even once, for at least a year. Revel in how far you’ve come when you finally do listen to it.

When you play Mozart or Chopin or the Beatles or Elton John, remember that they played this too. You are connected.

Have fun! You will never be a soloist at Carnegie Hall. Accept that and play because you love it!
I love everything about it. The creative outlet, the artistic fulfillment, the chemistry. Everything! I feel that lampworking is one of the many blessings in my life, as are the many friendships I have made along the way.

Recently, I started teaching lampworking, sandblasting, electro-forming, and lapidary cold work classes.

It is an honor that my glass beads and jewelry have juried into the Indiana Artisan program and now carry the Indiana Artisan logo.

Lisa Atchison, co-owner of Indy Flame Art Glass Studio, Indiana. www.lisaatchisondesigns.com

Isabel Taylor, singer and guitarist

I’ve always loved singing and had a desire to perform, but I didn’t have a chance to pursue it until my mid-forties. A few years ago I started singing and playing guitar at local open mics, which led to getting bookings at local venues, recruiting other musicians to accompany me, and another completely new experience: song-writing. Music is rewarding in a way that my career as a project manager in information technology just couldn’t be. The opportunities for personal and creative growth are endless!

Based in Chapel Hill, North Carolina, Isabel Taylor started performing at local open mics in 2010, accompanying herself on guitar. www.isabeltaylorsings.com

Judy Caldwell, painter

I came to my art at 50 years old: hungry to find a strong voice damaged by lung surgery, empty nesting, and working towards getting through a tough divorce.

The Pennsylvania Academy of Fine Arts’ four-year certificate and one-year post baccalaureate program answered my needs. The training honed my skills, helped me develop self-respect and identity, and gave me deep friendships and an ever-evolving supportive community.

My need to become part of the land and breathe its rhythm is my soul’s search for peace. This search is my process in art. I am forever learning to be more present—fully mindful and engaged in nature’s timing and energies.

My instinctual use of color brings an integrity to the process and creates a spontaneous feeling for the ephemeral.

Judy Caldwell is based in Philadelphia. www.judymcaldwell.com

Harmonize the World . . . Three Voices of the Sweet Adelines

Many women all over the world are singing their hearts out with Sweet Adelines International, an independent, non-profit worldwide organization. They are exploring their inner diva among over 500 choruses and 1,200 quartets spanning over five continents. One of the world’s largest organizations for women’s singing, they were founded on Friday, July 13, 1945 in Tulsa, Oklahoma. The Sweet Adelines organization promotes the musical art form of barbershop harmony through education, competition, and performance. Their many members have a wide variety of ages with the average age being 45 plus. www.sweetadelineintl.org
Here are three members who share how they have found their inner artist through singing.

Carol Argue, Westcoast Harmony Chorus, British Columbia, www.westcoastsings.com

I always loved to sing, but because I have a low voice, I didn't have many opportunities. When I discovered barbershop, and the bass part, I was immediately hooked. It keeps me young in spirit. It provides me an opportunity for lifelong learning. There are so many opportunities to take on new challenges and new responsibilities—from committee work to MC'ing to directing a chorus of my own. It allows me to try new things and meet new people.

My advice for getting started is to seek out opportunities for singing. If one group doesn’t suit you, keep looking until you find a fit for you. There are choruses and choirs of different styles and different abilities. You’ll know when it’s the right one!

Judy Buchanan, Westcoast Harmony Chorus, British Columbia www.westcoastsings.com

I was an unwilling visitor to Sweet Adelines. My friend had heard about Westcoast Harmony Chorus and wanted company. It had been over 35 years since I had sung anywhere except in the car! When I heard of the audition requirement I was definitely not interested in exploring this experience. Finally, my friend begged me until I relented. To my astonishment we were both immediately hooked on the sound and the friendliness of the women. This was a safe, happy place. We plucked up our courage, survived the audition, and joined. Little did I know that I was about to have a major life-changing experience!

The advice I give to women is to do some research. Go and visit some choirs and choruses. Listen and watch. If the music touches you deeply and you like the chorus culture, then go and sing!! It can truly change your life for the better.


If you love to sing, dance, wear glitzy costumes, perform, and compete, you might be a potential Sweet Adeline. If you love a challenge and want to learn something completely new, then Sweet Adelines is for you. We’re not your average church choir or variety group. We’re driven, creative, friendly, encouraging, and strong. And we build on each other’s strengths through our music. Give us a try. You might just unearth a new passion.

Tilda Mann, painter

When my oldest of three children went off to college, it felt like a good time for me to pursue my lifelong love of art. I had always done art on my own, but didn’t have a formal art education. With Pennsylvania Academy of Fine Arts (PAFA) nearby, I couldn’t pass up the opportunity to enroll in their four-year painting certificate. No matter how good you get, you are always coming up against your own limitations and have to push beyond those limitations to realize your vision.

Tilda Mann’s painting, Yola Abravanel.
Many decades ago while studying psychology in graduate school, it was thought that the brain began its irreversible decline around age 30. Now as a retired university faculty member and psychologist winding down a private practice, I know better. Led by my interest in writing and my quest to learn the cello, I hypothesized that the brain, when fueled by activities that include complexity, newness and problem solving, can flourish even in later life.

My research confirmed that taking up one of the fine arts at this life stage maximally stimulates the brain and the psyche. To spread the good news, I wrote The Vintage Years: Finding Your Inner Artist (Writer, Musician, Visual Artist) After Sixty. Recent neuroscience research corroborates that The Vintage Years may be the most satisfying stage because of changes in the brain and endocrine system at around age 55, leading to generally improved mood and increased ability to focus. But focus on what?

It turns out that writing short stories, learning to play music, or painting landscapes, for example, supercharges the brain. No longer is talent or work product relevant. Instead, the art journey is its own goal and reward. Through interviews with many late-blooming artists, I got a glimpse into what a sixty or ninety-year-old set of hands and eyes, combined with heart and mind, can produce in the way of music, visual art or writing.

Harold at 74, following a full adult life including the usual busyness of family, home, and a job in sales, moved into unplanned retirement. He took a stained-glass art class offered by adult-education. The goal was to keep busy when all the fix-it jobs in his new home ended. With no previous art training his curiosity kindled passion that in the past ten years has led to creating extraordinary stained glass objects and windows that grace several houses of worship in New Jersey.

Charmion wondered whether she was creative. At 70 she decided to find out. Her science background made her feel lop-sided. For balance she took some poetry writing courses. It wasn’t a good fit but her interest in classical music led her to the Viola da
People sometimes imagine that I sit at an easel in one position for hours on end. In fact, the work is very physically active. I often put my canvas on a wall, stand, and use my whole body to bend and reach all over. Sometimes I am on my hands and knees, drawing on the floor. Always, I seem to be moving large panels and canvases from one place to another!

I do my deepest creative work alone, in solitude, so that I can hear and respond to my own inner voice. But I balance the solitary time by taking workshops and by meeting with other artists in a critique group. We show each other our work and discuss it on a monthly basis. It has become a supportive community over the years and a great motivator.

One of the best parts of art is that it puts me in touch with people of all ages, from all walks of life, whom I otherwise would never have met. When I graduated from PAFA, I was in my early 50s. Most of my fellow classmates were in their mid-20s. But we had so much in common and so much to talk about with this art bond. The same is true when I exhibit my work—some of the best conversations have come out of chance encounters with people who are touched by the work in some way. It definitely keeps me young, active, and connected.

Tilda Mann lives in the Philadelphia area. She is represented by Soho 20 Gallery in Chelsea, New York. www.tildamann.com

Tom Buglio, piano teacher

I have been teaching private and group lessons on keyboard instruments most of my adult life. I find that today there is greater interest than ever before among adults for learning to play the piano. In particular, baby boomers, who are approaching retirement age, have more time on their hands since child rearing is over. There are many reasons for this interest:

1. Many regret quitting music as a youngster.
2. Playing the piano is a great way to reduce stress since it requires the concentration of ‘living in the moment’ and forgetting about everything else.
3. Piano playing is a great way to keep the mind sharp as we age.

The philosophy of teaching beginning students later in life emphasizes the fun aspect of playing, rather than the discipline of traditional lessons. Working with lead sheets and chords makes recognizable music more doable in a shorter time, increasing enjoyment. In fact, there is an entire genre of music teaching in the music industry, called ‘Recreational Music Making,’ which recognizes these trends and capitalizes on them by making music books, materials, and teacher training manuals available to create the right environment for the later-in-life beginner to enjoy his or her music-making experience.

Ultimately, I believe, that it does not really depend on one’s talent level as to whether one will be successful with piano, but on how enjoyable the experience is. If piano lessons are fun, there is no doubt adult students will make playing music an important part of their lives.

Tom Buglio is a piano, keyboard, and organ teacher at Taylor’s Music Store, West Chester, Pennsylvania. www.taylorsmusic.com

Francine Toder, Ph.D., is an emeritus faculty member at California State University Sacramento and a clinical psychologist recently retired from private practice. She is the author of The Vintage Years, When Your Child Is Gone: Learning to Live Again and Your Kids Are Grown: Moving On With and Without Them. She lives in the San Francisco Bay Area and practices the cello daily. www.doctoder.com

Tom Buglio instructs Randy Lyons on piano

Gamba. Very difficult to learn and play, this six-stringed baroque period instrument dwarfs the cello. Charmion couldn’t have found a greater cognitive challenge! She’s kept at it for eleven years, playing for an hour or two every morning and taking yoga and tai chi classes to maintain her flexibility and strength.

Much has been written about the need to stay physically fit as we age but only recently has there been a focus on ways to maintain cognitive sharpness. The brain, like a muscle, benefits from vigorous use and the arts fuel the brain optimally. Similar to the more than twenty artists featured in my book, I focus on my art—practicing the cello daily. Hopefully I’m a good example of what is possible after 60.

Francine Toder, Ph.D., is an emeritus faculty member at California State University Sacramento and a clinical psychologist recently retired from private practice. She is the author of The Vintage Years, When Your Child Is Gone: Learning to Live Again and Your Kids Are Grown: Moving On With and Without Them. She lives in the San Francisco Bay Area and practices the cello daily. www.doctoder.com

Tom Buglio instructs Randy Lyons on piano
“ARTS COLONIES OFFER A CREATIVE, WHOLE-PERSON WELLNESS ALTERNATIVE FOR INDEPENDENT LIVING”

MARILYNN LARKIN, MA
THE JOURNAL ON ACTIVE AGING
Arts colonies offer a creative, whole-person wellness alternative for independent living

Collaboration between Meta Housing and EngAGE fuels the development of arts-focused communities

by Marilynn Larkin, MA

The benefits gained by involvement in the arts, particularly for older adults, cannot be underestimated. The late Gene Cohen, MD, PhD, a pioneering geriatric psychiatrist, and colleagues demonstrated the impact of cultural programs participation on the physical, mental and social health and functioning of older adults in a landmark study initiated in 2001. The entire literature supporting such interventions has since emerged (see the sidebar “Selected studies of arts programming for older adults” on page 43).

Cohen’s team found that, compared with those who did not receive the intervention, individuals who participated in a chorale program for one year reported “a higher overall rating of physical health, fewer doctor visits, less medication use, fewer instances of falls, and fewer other health problems than the comparison group.” The intervention group members also showed higher morale and less loneliness than the comparison group, as well as increased activity. Taken together, the findings demonstrated “a reduction of risk factors driving the need for long-term care,” according to the study authors.

Inspired in part by Cohen’s research, California-based visionaries Tim Carpenter Continued on page 38
In 2012, Meta Housing opened its North Hollywood arts colony in the city's NoHo Arts District.
and John Huskey have created a model of senior housing focused on arts amenities and programs. The Burbank Senior Artists Colony, completed in 2005, was the first arts community to result from this collaboration between Carpenter, founder and executive director of Eng-AGE, a nonprofit organization and residence services provider that takes a whole-person approach to active, healthy aging, and Huskey, chairman and CEO of Meta Housing Corporation, a senior housing developer headquartered in Los Angeles.

When Carpenter and Huskey met in the mid-1990s, “we both wanted to do something new and different and try to change things,” Carpenter recalls. “We looked at what was provided inside independent senior housing and saw that not a lot was going on. We wanted to create communities in which people could live better lives.”

Kasey Burke, president of Meta Housing, adds that when the company did market studies, it found “very low engagement in senior communities—just a lot of people living in their apartments by themselves, often developing drug and alcohol problems. There was a general feeling of sadness and malaise,” Burke comments. “We wondered what we could do as senior housing developers to change this.”

Seeking a model of a more active, engaged community, Carpenter thought of college. “People often enter senior housing when they retire or lose someone, and when they get there, it’s a strange environment and they don’t know how to navigate it,” he says. “I thought, Wouldn’t it be cool if there were someone like me to greet them, hand them their college courses, and say, ‘Follow me—this is what the rest of your life will look like?’”

That train of thought led to the arts as a theme for such a community. In addition to being familiar with the research showing benefits, Carpenter had grown up near Yaddo, an arts colony in Saratoga Springs, New York, that spawned many famous artists. “Yaddo was such a great environment,” Carpenter shares. “People would go for months at a time to work on a project, and being around like-minded people elevated their work and their feeling about what they were doing, so they would go home energized.” He pondered a senior housing community where art, rather than age, was the glue that held residents together. A community where “people went next door to get script notes from a neighbor, rather than to borrow a cup of sugar.”

**Getting started**

The vision established, Carpenter and Huskey embarked on the journey that led to the development of the Burbank Senior Artists Colony. “We thought if we said it’s about art, people would have to come willing to play,” Carpenter says. “There would be an inherent promise that when people moved in, they would...
From the development side, the Burbank community, “like any community, started with an idea, and then we had to find the piece of land, secure financing, get the property and title, and work with the local cities and agencies,” reveals Burke. Financing came mainly from foundations, federal and state tax credits, and local agencies.

How did Meta Housing convince investors and lenders to support the arts colony model? “They already knew our reputation as a high-quality senior housing developer and our ability to deliver on promises,” Burke comments. “We told them we were going to ramp up our services and implement a quality of life through activity and creativity that far exceeded anything we’d done before.” That was enough, he adds, for everyone to buy into the new concept.

From a process standpoint, Burke continues, “the only thing we did differently for Burbank compared with our previous affordable housing communities is that, in addition to working with our architects, we put together an advisory council to make sure we built the space appropriately.” The advisory council consisted of people from the surrounding community, those who worked for the city, a representative from Meta Housing’s property management company, and Carpenter.

“Working with the council helped us learn what potential residents wanted, so we could design the features from the beginning,” Burke shares. The Burbank development “ended up including a lot more community space than many affordable senior communities normally have,” he adds, “with very specific types of spaces for the art classes.” In addition to a theater, creative arts studios and art display galleries, the design provided a library, fitness center, resource center, game room, business center and outdoor courtyards, as well as other amenities. The final step, as for all developments, was to gain approvals from the planning commission and neighborhood and city councils.

Altogether, it took close to five years from idea to completion, notes Chris Maffris, Meta Housing’s senior vice president. The Burbank Senior Artists Colony has 141 rental units that house about 200 people, some of whom are retired, while others are still working full- or part-time. Some units are income-restricted affordable housing. The average age of residents is currently 72, because many moved in when they were in their 60s and stayed. Meta Housing anticipates that in five years, the average age will be about 77, since residents tend not to move out unless they need a higher level of care.

Location-specific offerings
Since the opening of the Burbank Senior Artists Colony, Meta Housing and EngAGE have collaborated on several other...
senior arts communities, with more in development. Amenities and programming depend on the location, according to Maffris. For the 126-unit rentals in the NoHo (North Hollywood) Senior Arts Colony, Meta Housing partnered with a local professional company, Road Theatre Company, which puts on a series of professional plays and musicals in the senior community’s 78-seat theater. NoHo residents participate in those performances as stagehands and, occasionally, actors; in the off-season, they produce and perform their own shows. All productions are open to the local community.

The Long Beach Senior Arts Colony, a 161-unit multifamily community for people ages 55-plus, was designed specifically with a view toward “connecting with the community-at-large as well as other arts communities,” Maffris explains. It features a 99-seat theatre, arts and dance studios, and a large space for gallery showings that is used by residents as well as artists from the surrounding community. In addition to its arts-focused amenities, the community features a computer room, game room, dog park, community gardens, outdoors spa, fitness room and a yoga/meditation room.

Glendale Arts Colony, which is under construction, will be a 70-unit affordable housing development for families in Los Angeles County. At the heart of the development is a “full-scale, professional-level art gallery space for exhibits, performances and other creative programming,” says Maffris. The five-story apartment community will also include a sculpture garden, a digital media lab, and a series of outdoor artist work decks. “We’re doing all we can to help residents connect, collaborate and create with each other and the larger community,” he comments.

EngAGE’s Carpenter notes that, in keeping with his “college” vision, the organization hires professional-level teachers to teach on-site courses for free in all the arts colony communities. Courses change every 6-to-12 weeks, he notes, plus each semester “ends with culminating events in which participants use their skills in real-world ways. If residents participate in a painting class, then they will be part of an art show. On the fitness side, we run an annual Senior Olympics event in which people compete, and this motivates them to stay involved and exercise all year long.” To promote lifelong learning, classes to enhance computer skills and learn new languages are among the offerings. EngAGE is also exploring the culinary arts, including classes on healthy gardening. Underlying all programming is a single driving force, Carpenter stresses: “Engagement.”

Seniors centers and other local organizations may offer similar programming, Carpenter acknowledges, and so whenever possible, the arts colonies try not to duplicate what is already being provided. “Whenever we come into a community, we assess the lay of the land, figure out who is doing what and try to collaborate with them,” he reveals. “Our big mission is to change the way people perceive aging, and everyone can contribute to that.” Further, seniors centers generally cater to a self-selected population of people who are already willing to travel to do something, Carpenter adds. “We’re trying to make it as easy as possible for people to participate by eliminating the need for and the cost of transportation. In our communities, people can simply walk downstairs or down the block and engage in experiences that can change their lives. And they don’t go back home, outside of the community, afterwards; they’re on-site 24/7.”

Like Meta Housing’s recently opened Pacific Avenue Arts Colony, a 49-unit development in San Pedro that has no

Continued on page 42
age restrictions, the Glendale Arts Colony will give preference to professional artists, although those who want to participate in an artistic community or see if they can become artists are welcome when there are vacancies. “The policy is more inclusive than it sounds,” Carpenter comments. “Although professional artists are required to submit their work for review as part of the application process, those who are not artists can submit a letter explaining why they want to be part of the community. We try to allow these people to come in whenever possible, because their stories, for me, are the most inspiring.”

**Confronting challenges**

From an arts colony’s programming perspective, “the biggest challenge is how people in the United States perceive aging and the self-stereotyping that results,” Carpenter reveals. “When you hear negative stereotypes of aging enough times, you start to believe them. So our first job is to undo the effects of that.” He acknowledges that’s not an easy task, especially in Los Angeles. [Ed. The city’s influential entertainment industry is notoriously ageist. For example, actress Maggie Gyllenhaal, 37, was recently told she is “too old” to play the love interest of a 55-year-old man.]

“I’m in the heart of darkness here,” Carpenter admits. “But we’re doing all we can in designing our programming to improve perceptions of aging and to let people know they are capable of coming downstairs or walking across a courtyard to take a class.”

When Carpenter founded EngAGE in 1999, he was the organization’s only employee. “I would knock on doors in a senior community and say, ‘Wouldn’t you rather join in a rousing conversation than sit here and watch a soap opera?’” he recalls. “That constant on-site cheerleading led to results.” While at the time “it seemed like some kind of magic that people could improve their health to the point where they could get out of their chairs and not use walkers or oxygen machines ..., it was simply health,” Carpenter observes. “Now we’re extending these benefits through all the wellness dimensions and the results are amazing.”

Great teachers are another reason the arts colony model works, according to Carpenter. “The college-level environment also generates a feeling of energy and excitement,” he says. “We literally create ‘poster children’ by displaying posters of people who have changed their lives by becoming part of these programs, and we create peer groups to sustain their motivation.”

From a developer’s perspective, Maffris notes that the biggest challenge is to involve the right partners. “By working with EngAGE, we’re helping to ensure that we don’t just build something and put up a sign that says it’s a senior arts community,” he observes. “We’re making sure things are there to make that happen.”

**Lessons learned**

Many communities offer arts programming for their residents. But there’s more to fostering engagement than simply offering classes, Carpenter says. “Of course, part of the success of such programs depends on who you hire to teach and what they’re capable of doing themselves and inspiring in others. Beyond that, we’ve found that constant change is good,” he shares. “The idea of a semester system culminating in a real-life event worked when we were younger and also works when we’re older—setting and accomplishing goals feels the same whether you’re 21 or 91.”

The semester structure also gives communities an opportunity to continually change both programming and instructors. “Offering the same programs with the same instructors day after day, year after year, is terribly unmotivating,” Carpenter comments. “No one and nothing is that interesting.” Even if a program is “cool” when first offered, “management will kill it with the duration,” he explains. “If someone comes in and wants to teach water aerobics, for example, and ends up teaching it for 18 years on Tuesday afternoon, eventually people don’t
want to participate any more.” For arts colony professionals who do teach regularly over a period of years, “we still try to get them to change what they offer,” says Carpenter.

EngAGE also provides train-the-trainer programs to help lifelong-learning instructors understand that older adults may learn differently from other students. “Being a teacher in a senior arts colony or any community for older adults means you have to work and think on your feet,” Carpenter emphasizes. “The first thing I learned is you may stay up the night before creating a lesson plan, and 15 seconds into the class, you’re on your own. I advise people to ‘be in the program you’re in, not the one you planned’—be in the program, motivate people, and get them talking and learning.”

On the developer’s side, “we took everything we learned from Burbank and tried to repeat and bring it up a level in the North Hollywood community,” Burke states. “In addition to making the site an arts colony with plenty of community space and classes for our residents, we built the live theater,” he says. “Similarly, partly because of advances in technology, we added fully equipped editing bays in North Hollywood and in Long Beach, so residents can do film and sound editing; these communities also have gallery spaces, whereas in Burbank, the hallways became the galleries. So we try to enhance everything with each iteration.” With the Glendale Arts Colony, for example, Meta Housing added both a digital media lab and an “idea lab”—a space in which residents can participate in various creative activities.

Looking ahead
Moving forward, Meta Housing is likely to continue building arts colonies for older adults as well as for people who have had careers in the arts or are currently professional artists, according to Maffris. “These developments are very different,” he says. “The senior arts colonies are about active aging and aging well. The professional arts colonies are more of a tool for community development. For example, San Pedro once had a great arts community, but many of the artists who had driven that scene left, so the professional arts colony was a way of bringing in fresh energy with new artists.”

The other arts colonies on the Meta Housing drawing board will likely follow one of the two models, Maffris continues. The company has also received requests from other cities and developers that are exploring arts colonies as alternatives to traditional affordable senior housing.

“I believe the arts colony concept can work anywhere because there are creative people everywhere, not just in the heart of the entertainment industry,” Maffris says. “But while creativity is part of the model, the crux of it is involvement—people being engaged. As opposed to growing old and feeling isolated and devalued, you can do something as simple as going downstairs because you’re setting up the props for a show. It gives you a job to do if you’re not already working, in a place where you matter and where people care about you.”

Marilyn Larkin, MA, is an award-winning medical writer and editor, an ACE-certified personal trainer and group fitness instructor, and originator of PosturAbility®, a program that boosts posture and self-esteem. She is also ICAA’s Communications Director and a regular contributor to the Journal on Active Aging®.

References

Selected studies of arts activities for older adults
Since a landmark study by Dr. Gene Cohen and colleagues showed the benefits of professionally conducted cultural programs to the health and wellness of older adults,1 other studies and reports have confirmed these findings. Following are selected recent examples:


“CRITICAL PERSPECTIVES: CREATIVE ENVIRONMENTS THAT REVOLUTIONIZE AGING”

NATIONAL GUILD FOR COMMUNITY ARTS EDUCATION
Nailah Jumoke always had the urge to write, but over time her life took other directions. When she moved to NoHo Senior Arts Colony in North Hollywood, California, her inner poet emerged and blossomed. Creativity thrives every day at NoHo through free arts education programs offered by the nonprofit organization EngAGE. Committed to the notion that later life is a launching pad, not a winding-down period, EngAGE challenges people to "take control of their own aging and believe they can do anything they want with the rest of their lives," explains founder and executive director Tim Carpenter. That’s exactly what Jumoke and other NoHo residents are doing. "I’m finding out something about myself literally every day," she says. Without EngAGE’s programs, "NoHo would be just another building. Instead, it really is a community.”

EngAGE provides sustainable arts, lifelong learning, and wellness programs for thousands of people who live in more than 35 apartment communities for low- to moderate-income seniors in Southern California. Four are arts-centered sites developed in partnership with Meta Housing Corporation: NoHo, senior arts colonies in Burbank and Long Beach, and family arts colonies in San Pedro and Glendale (opening in 2016). With a grant from Aroha Philanthropies, EngAGE has recently begun planning an expansion to Minneapolis–Saint Paul.

EngAGE’s program and business models—which align the assets and needs of arts education, older adults, and the affordable housing sector—improve outcomes for all, enrich older adults’ lives, and benefit communities. One in five Americans will be 65 or older by 2030, so the time is right for community arts education organizations to explore the potential for bringing programs like these into senior independent living communities. In this article, you will learn about the strategies that EngAGE has employed in order to align community resources as well as tools that your organization can use to build long-lasting relationships with older adults.

How EngAGE Works
Carpenter is a vocal critic of our narrow social view of aging. He remembers his first encounter with a senior apartment community when he worked in senior healthcare earlier in his career: "They had two things on the calendar to look forward to every week. One was bingo, and the other was donuts. " Aging is not a deficit,” he says, "and it’s not a problem.” By infusing senior housing with arts education and lifelong learning, EngAGE respects older adults’ desire for physical and emotional health, self-respect, self-sufficiency, community, and learning, aiming to change the way people age by changing the environments where they live. "When ‘art’ is written on the door of a senior housing community,” Carpenter says, "that is a very powerful inherent promise to the people who live there.”

EngAGE fulfills that promise with college-style courses—sequential and semester-long—provided at no cost to residents under contract with developers and building owners. Weekly assignments and rigorous critique challenge students. Culminating events or projects showcase their work—a poetry slam, a community art exhibition, a performance. According to chief operating officer Maureen Kellen-Taylor, staff and teaching artists honor the experiences of residents when designing courses for each community: "We bring people together and ask them: What do you do now? How do you spend your time? What do you dream of doing? What would you like to share?” All communities have visual, literary, and performing arts classes. Arts education in senior arts colonies is more specialized: screenwriting, acting, poetry, chorus, comedic monologue, ceramics, and more. EngAGE hires and trains experienced professional teaching artists who excel at working with people with a variety of interests, abilities, and attention spans. The primarily part-time staff come from a variety of fields, including geriatrics, healthcare, housing, education, and the arts.

Residents in communities EngAGE serves have an average annual income of $10,800. The average age is 77, and 80 percent are regular program participants. Resident satisfaction is high, leading to 95 percent occupancy rates, low turnover, long waiting lists, and a positive public image. The senior arts colonies that EngAGE develops with Meta Housing and its founder and CEO John Huskey are a unique concept. Their inaugural effort is the award-winning Burbank Senior Artists Colony, the first apartment rental community dedicated to providing a “creative, art-inspired environment” for senior independent living. EngAGE is not just a program vendor but an active partner, helping to design both the facilities and programs that attract residents and build community. Support services like these are incentives that enhance public-private partnership opportunities and make developers more competitive for federal Low-Income Housing Tax Credits. "If you look at what makes us stand out in the marketplace and why people recognize us as innovators,” Huskey says, “it’s not only that we build high-quality facilities. It’s that we never stop engaging our residents.”

Learning from EngAGE
The EngAGE model works for a simple reason: It identifies and aligns the needs and assets of its partners and target market to create positive outcomes. This successful approach holds valuable lessons for community arts education organizations interested in reaching a growing audience of active older adults. This summary of assets, needs, and limitations is a guide:

- **Seniors** have time, experience, interest, and potential for learning. They need creative engagement, arts learning that contributes to well-being, and social interaction. They may be challenged by health and mobility issues and by the sense of loss and uncertainty they may feel as they move to congregant housing for the first time in many decades.

- **Developers and building owners** with successful track records in senior housing can provide access to senior apartment communities as program sites, business and government relationships, and financial resources. They are looking for profitable opportunities that give them a competitive advantage. Enlightened developers or building owners like Huskey see beyond their profit margins to provide a high quality of life in their communities. But others may be unwilling or unable to do so. They may also have limited experience with nonprofit partnerships.
partial funding for EngAGE-Meta Housing projects has come from community development and housing agencies in Burbank, Glendale, Long Beach, and Los Angeles. Community arts education organizations are more likely to work with existing senior apartment complexes, but local government contacts can be helpful by providing information and access to those communities and information about funding through local agencies on aging. Nonprofit aging services organizations are another potential resource. With their community connections and familiarity with the senior market, they can link organizations to needs and opportunities.

**Strategies for Exploring Senior Housing Partnerships**

**Investigate options.** Talk to people in the aging services sector—government agencies and nonprofits—about senior housing services and needs in your area. Do you want to develop or adapt a program series and market it to one or more building owners or developers? Partner with other arts education organizations to develop and market a multidisciplinary program? Or build your own through a business relationship with a housing developer in which you design the environment, provide the programming, and develop related revenue streams [like the NoHo Senior Artist Colony’s onsite theater]? It’s likely that your organization will focus on the first two options, but think of the possibilities if you considered the third.

**Identify the right senior housing communities as prospective partners.** Arts education programs like those EngAGE offers are intended for active adults in independent living, not assisted living or long-term care facilities. Visit a few and talk to residents. Look for evidence of a place that’s alive, with people gathering in common areas, social interaction, and a diverse monthly activity calendar. Carpenter and Huskey both advocate working with a building owner or developer, not a management company or on-site staff. Narrow down some choices, and check their companies’ portfolios. Do they provide life-enhancing programs and services, or do they just build and lease developments that happen to be for seniors? The right person will connect business success with meeting social needs and understand that quality of life, not just physical amenities, sustains resident satisfaction. Contact a building owner or developer to pitch your idea. Carpenter convinced Huskey to offer a writing class as a marketing tool in one of his developments. It was a runaway success and became the impetus for EngAGE.

**Design programs around the older adult arts learner.** Uncover their expectations. Do they have a genuine interest in arts learning? What’s their experience level? Do they want structure, flexibility, or a combination? Ask what they can contribute: Do they have specific skills and talents to share? Find out what they want: Prompt them with examples, and ask what interests them most. Commit to ongoing program assessment. For EngAGE, assessment begins with knowing what the developer and business owner needs in order to demonstrate success. Consider the best way to collect data on health and wellness impacts. With residents, focus on program evaluation and improvement, not teaching artist evaluation, a staff responsibility.

**Invest in advocacy and long-term relationship building.** Involve your board and staff in mining your organization’s current community connections and seek new ones, including local government economic and community development staff, social service organizations that work in the senior housing sector, potential business partners, and arts organization partners. Invite motivated partners and supporters to visit your organization and learn about what you do. Focus first on business partners who see the benefits quickly and are easy sells, but also cultivate new relationships to bring others along over time.

Inside the NoHo and Burbank artist colonies, a visitor can feel the creative energy in conversations with enthusiastic residents, in spacious, art-filled studios, and in lively classroom exchanges between teaching artists and students. “There’s so much genius around here,” Nailah Jumoke says. “At our age people think we’re ready to kick the bucket or ‘retire,’ whatever that means. I feel like I’m beginning to live.” The EngAGE model suggests an innovative creative aging opportunity for community arts education organizations: to be a creator, leader, expert, and advocate, not just a program provider, and to cultivate partners who build life-enhancing communities, not just shelter.

**Resources**

EngAGE, [www.engagedaging.org](http://www.engagedaging.org)

Burbank Senior Artists Colony, [www.seniorartistscolony.com](http://www.seniorartistscolony.com)

Long Beach Senior Arts Colony, [www.lbseniorartscolony.com](http://www.lbseniorartscolony.com)

NoHo Senior Arts Colony, [www.nohoseniorartscolony.com](http://www.nohoseniorartscolony.com)

Meta Housing Corporation


Senior Housing, [http://metahousing.com/senior-housing/](http://metahousing.com/senior-housing/)

**About the Author**

Ellen Hirzy is an independent editor and writer for museums, arts and cultural organizations, and other nonprofits. She has worked with the National Guild on Engaging Adolescents: Building Youth Participation in the Arts and the Community Arts Education Resource Center.

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*Community arts education organizations* have missions compatible with creative aging programs, experience in developing sequential programs, and access to skilled teaching artists. Experienced in arts and cross-sector partnerships, they have community connections in business, nonprofits, education, social services, and the arts. They need sustainable funding from sources beyond the limited pool of arts funders, access to populations interested in learning in the arts, and enhanced capacity to serve all age groups with varied programming. Their limitations include a tendency toward narrow thinking about who funds arts programs and little experience in working with senior housing. They often have small staffs, modest budgets, and limited risk capital.
“PARTICIPATORY ARTS FOR OLDER ADULTS: A REVIEW OF BENEFITS AND CHALLENGES”

GERONTOLOGIST
Participatory Arts for Older Adults: A Review of Benefits and Challenges

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This article reviews the scientific literature on the enhancement of healthy aging in older adults through active participation in the arts. Methodologies and conclusions are described for studies of dance, expressive writing, music (singing and instrumental), theatre arts, and visual arts including documentation of mental/physical improvements in memory, creativity, problem solving, everyday competence, reaction time, balance/gait, and quality of life. In addition to these gains in measures of successful aging, the article also provides (in a Supplementary Appendix) some selected examples of arts engagement for remedial purposes. Finally, it offers suggestions for expanding inquiry into this underinvestigated corner of aging research.

Key Words: Arts, Quality of life, Cognition, Health benefits

Remedial use of the arts has a long history (e.g., Hill, 1948), but studies on enhancing healthy aging through arts participation are fairly recent. One advantage of the latter approach is its relatively low cost, generally using a single instructor and no expensive equipment. However, a search of the literature revealed only 31 evidence-based studies on this promising field. First, a few definitions:

The term, “participatory arts,” concerns art making rather than art observing (e.g., dancing as opposed to watching dance performances.) We distinguish between two overall types:

1. Wellness Studies concern promotion of cognitive, emotional, physical, or psychological health in nondemented older adults capable of performing normal activities of daily living.
2. Treatment Studies fall within the following definition, “... the therapeutic use of art making ... by people who experience illness, trauma or challenges in living (American Art Therapy Association, 2012).

Aims: The primary purpose of this review is to collect and describe current and past Wellness Studies (as defined above) and to promote future investigations with a strong evidentiary base. A secondary purpose is to indicate the extent and variety of Treatment Studies by presenting a sampling of the voluminous treatment literature (see Supplementary Appendix).
Methods

Inclusion and Exclusion Criteria for Wellness Studies

We included studies with nondemented older adults (>60 years) in good general health. In some studies (e.g., Noice & Noice, 2009), lack of dementia was determined by administration of the Mini-Mental State Examination (MMSE) or Pfeiffer’s Short Portable Mental Status Questionnaire and general health by a demographic questionnaire. In other studies, we have accepted the authors’ characterizations of their participants’ generally good mental/physical health.

All experimental participants actively engaged in dance, expressive writing, music, theatre, or visual arts. Studies emphasized the aesthetic qualities of art; therefore, dance performed mainly for exercise (e.g., aerobic dancing or Zumba) was not eligible. Because participatory arts’ wellness studies constitute a relatively unexplored field, this review attempts to cover all such evidence-based investigations regardless of execution date. However, we excluded case studies, small-n experiments, reports in nonpeer reviewed journals, and articles not written in English.

Search Criteria for Wellness Studies.—Data bases: PsycINFO, PubMed, SpringerLink, JSTORE Databases, Frontiers Journal Series, Science Direct, and SAGE Journals online. Keywords: aging, theatre, dance, music, painting, drawing, drama, visual arts, writing, and well-being, used in combinations such as aging and music. In additional searches, the term “older adults” replaced “aging.”

We expanded our search with sources such as Google and Google Scholar, and the “advanced access” feature of the Gerontologist to find suitable recently published papers. In addition, reference lists and citations of obtained articles were examined for further relevant sources, and on occasion, experts in the field were personally contacted. Titles and abstracts were examined to eliminate obvious mismatches with our stated aims, and then the complete texts of the remaining hits were read to determine final inclusion. All studies were examined independently by the first two authors; disagreements were resolved by discussion.

We also consulted two existing reviews (Castora-Binkley, Noelker, Prohaska & Satariano, 2010; Mental Health Foundation, 2011) that presented a clear view (with much duplication) of the limited and fragmentary state of participatory arts/aging research at time of their publication. The former review included only studies that their authors referred to as “therapeutic use of the arts” (very similar to our term, Wellness Studies) and excluded “arts therapies” (very similar to our term, Treatment Studies); the latter review included both types but did not label them as such. We included the few studies from those older reviews that fit within our wellness criteria. Locating studies for each of the five art forms required five searches.

The “Dance” search yielded 73 hits. We retained 11 for in-depth examination. (We also contacted one of the authors, resulting in two more papers for a total of 13 possibilities.) We rejected five as inappropriate, resulting in eight relevant dance studies.

For “Expressive Writing” studies, the databases led to 21 articles, none of which were suitable (most of them dealt with correct language usage, handwriting, or writing as treatment for existing disease.) Substituting autobiographical writing resulted in 26 hits of which two were relevant, and substituting Written Life Review added one more for a total of three.

The “Music” search provided 208 hits, which narrowed to 20 articles for further examination. From these, we found 9 relevant studies. Changing the search term “music” to “piano,” resulted in one other relevant study for a total of 10.

The “Theatre” search produced no usable results but “acting” produced 80 hits. Unfortunately, all but four studies dealt with acting-out behavior or short- or long-acting pharmaceuticals. Two more relevant studies were obtained from the previously mentioned review papers. Perusing of their references yielded one more, for a total of seven relevant studies.

In our “Visual Arts” search, nine articles appeared potentially relevant but none met all our criteria. “Painting” produced 137 studies, but only one study was a usable one (most of them dealt with art appreciation/viewing or museum visits). A colleague supplied another study, and Google Scholar led us to still another one for a total of three pertinent papers.

Note: To avoid redundancy, textual descriptions refer simply to standard instruments; exact names of those instruments along with participants’ ages appear in Table 1. Nonstandard experimenter-devised questionnaires, surveys, and conclusions are described in the text itself.
<table>
<thead>
<tr>
<th>Author/year</th>
<th>Type of art</th>
<th>Design</th>
<th>Number of participants</th>
<th>Outcome Measures</th>
<th>Key Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Coubard and colleagues (2011)</td>
<td>Dance (improvised contemporary dance)</td>
<td>Quasiexperiment (fall prevention and Tai Chi controls)</td>
<td>N = 110; age range: 64.9–83</td>
<td>Attentional control measured with arithmetic word problems, Stroop &amp; Rule Shift Cards tests</td>
<td>Improved attentional control (task switching only)</td>
</tr>
<tr>
<td>Hui and colleagues (2009)</td>
<td>Dance</td>
<td>Quasiexperiment (dance vs. usual activities control group)</td>
<td>N = 111; age range: 60–75</td>
<td>Butland's 6-min walk test for exercise tolerance; (SF-36), EDI (dance benefits)</td>
<td>Improved resting heart rate, higher physical function scores, improvement in general health</td>
</tr>
<tr>
<td>Kattenstroth and colleagues (2010)</td>
<td>Dance (amateur ballroom dancing)</td>
<td>Quasiexperiment (experienced amateur dancers vs. nondancers)</td>
<td>N = 62; age range: 61–94</td>
<td>Raven's Standard Progressive Matrices, Multiple Choice Reaction Time test, Romberg's test, Timed Up and Go test, standing-turn test; Everyday Competence Questionnaire</td>
<td>Dancers showed better cognitive performance and physical health</td>
</tr>
<tr>
<td>Kattenstroth and colleagues (2011)</td>
<td>Dance (ballroom)</td>
<td>Quasiexperiment (competition-level dancers vs. education and age-matched nondancers)</td>
<td>N = 49; age range: 60–94</td>
<td>Everyday Competence Questionnaire; Raven's Standard Progressive Matrices; Reaction Time Measures; Up and Go test; Romberg's test, touch threshold, two-point discrimination threshold</td>
<td>Expert dancers had better posture and balance and faster reaction times</td>
</tr>
<tr>
<td>Kattenstroth et al. (2013)</td>
<td>Dance (Agilando™)</td>
<td>RCT; (dance vs. nondance controls)</td>
<td>N = 35; age range: 60–94</td>
<td>Many of the measures used in 2010 and 2011 studies plus spiroergometry to test cardiorespiratory performance</td>
<td>Improvement in posture, RT, cognitive, tactile and motor performance; well-being; no cardiorespiratory differences between groups</td>
</tr>
<tr>
<td>Kimura and Hozumi (2012)</td>
<td>Dance (lengthy choreographed sequences)</td>
<td>RCT; choreographed dance group vs. aerobic exercise group</td>
<td>N = 34; age range: 65–78</td>
<td>Task-switching reaction time test</td>
<td>For dance group, switch cost was smaller</td>
</tr>
<tr>
<td>Vergheese and colleagues (2003)</td>
<td>Dance (social)</td>
<td>Longitudinal leisure activities study</td>
<td>N = 469; age range: 75–85</td>
<td>Wechsler Adult Intelligence Scale, Blessed Information-Memory Concentration test, Fuld Object-Memory Evaluation, Zung depression scale, questionnaires</td>
<td>Social dancing was only the physically effortful leisure activity associated with lower risk of dementia</td>
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<th>Author/year</th>
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</thead>
<tbody>
<tr>
<td>Verghese and colleagues (2006)</td>
<td>Dance (social)</td>
<td>Cross-sectional survey (recruited from 2003 subject pool)</td>
<td>N = 24; age &gt; 70 years</td>
<td>Blessed Information-Memory Concentration test, Free and Cued Selective Reminding Test, Wechsler Adult Intelligence Scale, Verbal fluency test, Trail Making Test, GDSD Physical Performance Battery</td>
<td>Social dancers showed greater balance and gait compared with nondancers but not greater strength. No significant cognitive differences between groups</td>
</tr>
<tr>
<td>Chippendale and Bear-Lehman (2012)</td>
<td>Writing (life review)</td>
<td>RCT (experimental group and waitlist control)—Pretests and Post-tests</td>
<td>N = 45; age range: 66–98</td>
<td>Geriatric Depression Scale (Geriatric Depression Scale); Duke Social Support Index; Social Support Appraisals Scale</td>
<td>Decrease in GDS scores for experimental group</td>
</tr>
<tr>
<td>De Medeiros and colleagues (2007)</td>
<td>Writing</td>
<td>Pretest and post-test, no control group</td>
<td>N = 18; age range: 62–84</td>
<td>Cognitive battery: list learning; Symbol digit Modalities Test; RAVLT; two writing samples evaluated for linguistic complexity</td>
<td>Improved on processing speed, attention, and verbal learning but no pre–post changes in linguistic complexity</td>
</tr>
<tr>
<td>De Medeiros and colleagues (2011)</td>
<td>Writing</td>
<td>RCT (autobiographical writing group, vs. no-treatment control group—pretest and two post-tests)</td>
<td>N = 51; age range: 67–96</td>
<td>Autobiographical memory (AM); Remote Memory Word Associations task; Hopkins Verbal Learning Test-Revised; Brief Visuospatial Memory Test-R; SF-36; NEO Five-Factor Inventory</td>
<td>AM did not improve on either immediate or delayed post-test, but both groups reported improved self-concept over time</td>
</tr>
<tr>
<td>Bugos and colleagues (2007)</td>
<td>Music (piano playing)</td>
<td>RCT (individualized piano instruction and untreated control), Pretest and two post-tests</td>
<td>N = 31; age range: 60–85</td>
<td>Modified version of Wechsler Adult Intelligence Scale III, Trail Making test</td>
<td>Significant improvement on digit symbol and Trail Making test. Effects no longer present (after no practice) at 3-month delay</td>
</tr>
<tr>
<td>Cohen and colleagues (2007)</td>
<td>Music (choral group)</td>
<td>Quasiexperiment (intervention and control group)</td>
<td>N = 128 due to attrition; mean age = 79</td>
<td>Same as those used in the 2006 study</td>
<td>Improved self-reported health, fewer doctor visits. The singing group also experienced better morale and less loneliness</td>
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</tr>
</thead>
<tbody>
<tr>
<td>Clift and colleagues (2012)</td>
<td>Music (choirs)</td>
<td>Randomized controlled trial (pretest and two post-tests; singing group vs. control)</td>
<td>N = 265; age &gt; 60</td>
<td>Quality of life (York SF-12); psychological well-being (Hospital Anxiety and Depression Scale)</td>
<td>Improved mental health at 3 months; reduced levels of depression and anxiety</td>
</tr>
<tr>
<td>Coffman (2008)</td>
<td>Music (musicians)</td>
<td>Survey study 53% response rate</td>
<td>N = 1,652; average age: 70</td>
<td>EDI incorporating SF-36</td>
<td>Self-reported emotional and physical well-being, cognitive stimulation, socialization benefits</td>
</tr>
<tr>
<td>Hanna-Pladdy and Mackay (2011)</td>
<td>Music (instrumental)</td>
<td>Quasiexperiment (high &amp; low activity musicians, and nonmusicians)</td>
<td>N = 70; age range: 60–83</td>
<td>Trails A and B; Boston naming test; visual reproduction, Visual Reproduction VRH; CVLT (short form)</td>
<td>Musicians had higher nonverbal memory recall, visuomotor speed and sequencing; greater cognitive flexibility</td>
</tr>
<tr>
<td>Hanna-Pladdy and Gajewski (2012)</td>
<td>Music (instrumental)</td>
<td>Quasiexperiment (musicians [&gt;10 years experience] vs. nonmusicians)</td>
<td>N = 70; age range: 59–80</td>
<td>Same cognitive battery as above, except long form of California Verbal Learning Test</td>
<td>Musicians scored higher on verbal working memory, verbal memory, verbal fluency, visuospatial functions</td>
</tr>
<tr>
<td>Hillman (2002)</td>
<td>Music (choir)</td>
<td>Questionnaire survey (response rate = 75%)</td>
<td>N = 79; age &gt; 60</td>
<td>EDI (33-item questionnaire on perceived benefits of singing)</td>
<td>Perceived improvement in emotional and social well-being, quality of life</td>
</tr>
<tr>
<td>Koga and Tims (2001)</td>
<td>Music (organ players)</td>
<td>Quasiexperiment (organ players and no-treatment control group)</td>
<td>N = 100; age &gt; 65; age range: 62–95</td>
<td>Mental Health Inventory-FN4; Profile of Mood States Depression and Dejection-FN5; psychological health questionnaire; blood tests</td>
<td>Lower levels of anxiety, decrease in perception of loneliness; increase in human growth hormone (hGH)</td>
</tr>
<tr>
<td>Solé and colleagues (2010)</td>
<td>Music (choir)</td>
<td>Pre–post quasiexperimental design (choir, music appreciation, music therapy)</td>
<td>N = 83; mean age: 72.6</td>
<td>Life satisfaction (Lawton); depression (Yesavage), self-esteem (Rosenberg). EDI</td>
<td>No significant results. Some anecdotal self-reports of life satisfaction and optimism</td>
</tr>
<tr>
<td>Noice and colleagues (1999)</td>
<td>Theatre</td>
<td>Single-group before–after design (Pilot study)</td>
<td>N = 13; age range: 65–82</td>
<td>Immediate and delayed list recall; immediate and delayed recognition tests</td>
<td>Significantly higher recall and recognition scores at post-test</td>
</tr>
</tbody>
</table>

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<table>
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<tr>
<th>Author/year</th>
<th>Type of art</th>
<th>Design</th>
<th>Number of participants</th>
<th>Outcome Measures</th>
<th>Key Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Noice and colleagues (2004)</td>
<td>Theatre</td>
<td>RCT (theatre, visual art, waiting-list control—two post-tests)</td>
<td>N = 124; age range: 60–86</td>
<td>Word recall, memory span, problem solving; Self-esteem (Rosenberg), psychological well-being (Ryff, 1989)</td>
<td>Theatre group showed increase in word recall, problem solving, and psychological well-being</td>
</tr>
<tr>
<td>Noice and Noice (2009)</td>
<td>Theatre</td>
<td>RCT (theatre, singing, waiting-list control)</td>
<td>N = 122; age range: 69–93</td>
<td>Immediate and delayed word recall; verbal fluency; East Boston Memory Test; Means-Ends problem solving. Personal growth (Ryff, 1989), MCI (Lachman); Lifestyle Activities Questionnaire (Wilson)</td>
<td>Improvements in recall (immediate and delayed), verbal fluency, problem solving; personal growth</td>
</tr>
<tr>
<td>Noice and Noice (2013)</td>
<td>Theatre</td>
<td>RCT (theatre, waiting-list control) taught by activity directors and an outside acting teacher</td>
<td>N = 97; age range: 68–94</td>
<td>Similar to 2009 plus Observed Tasks of Daily Living-R (OTDL)</td>
<td>Theatre group improved on OTDL, problem solving, and verbal fluency demonstrating that successful administration did not depend on individual qualities of original instructor.</td>
</tr>
<tr>
<td>Pyman and Rugg (2006)</td>
<td>Theatre (music hall)</td>
<td>Semistructured interviews</td>
<td>N = 8; age &gt; 60</td>
<td>Interviews to assess personal enrichment</td>
<td>Perceived improved confidence and self-esteem; enjoyed being creative</td>
</tr>
<tr>
<td>Yuen and colleagues (2011)</td>
<td>Theatre</td>
<td>Single-group design (pretest and post-test)</td>
<td>N = 12; age range: 62–88</td>
<td>Subjective well-being (General Well-Being Scale); SF-36; individual interview</td>
<td>Perceived improvement in psychological well-being and physical health; enjoyment of social interaction</td>
</tr>
</tbody>
</table>

**Visual Arts**

<table>
<thead>
<tr>
<th>Author/year</th>
<th>Type of art</th>
<th>Design</th>
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<th>Outcome Measures</th>
<th>Key Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Greer and colleagues (2013)</td>
<td>Painting</td>
<td>Semistructured interviews; observation (over 14 months)</td>
<td>N = 11; age range: 66–79</td>
<td>Observation; EDI (Self-rated physical and mental health)</td>
<td>Self-perceived improvement in mental and psychosocial health; sense of calm and relaxation</td>
</tr>
<tr>
<td>Kim (2013)</td>
<td>Painting and clay art</td>
<td>RCT (art therapy and control group) pretest and post-test</td>
<td>N = 50; age: 69–87</td>
<td>State-trait Anxiety Inventory; Positive and Negative Affect Schedule, and Rosenberg’s Self-Esteem Scale</td>
<td>Reduced negative emotions and anxiety; improved self-esteem</td>
</tr>
<tr>
<td>Reynolds (2010)</td>
<td>Painting, pottery, or textile art</td>
<td>Semistructured interviews</td>
<td>N = 32; age range: 60–86</td>
<td>EDI (interviews to assess motivation for creating art, and benefits derived)</td>
<td>Perceived their lives as more meaningful, derived enjoyment, and satisfaction from art</td>
</tr>
</tbody>
</table>

*Note: The designation EDI under Outcome Measures indicates that an experimenter-devised instrument was used in addition to, or instead of, standard measures.*
Five of the eight studies employed cognitive/affective measures along with physical ones. The remaining three studies used only cognitive/affective measures. (Studies using purely physical measures were considered dance-as-exercise and were not included; for a review of the latter, see Keogh, Kilding, Pidgeon, Ashley, & Gillis, 2009).

A frequently cited longitudinal study (Verghese et al., 2003) showed that the only type of physically effortful leisure activity that had a significant negative association with Alzheimer’s disease was social dancing. However, when Verghese and colleagues (2006), using the same cross-sectional survey, compared two groups (social dancers and nondancers matched for age, gender, and education), they found equal cognitive performance for both groups (but better balance and gait for dancers).

Using a quasiexperimental design, Kattenstroth, Kalisch, Kolankowska, and Dinse, (2010) tested 62 experienced amateur ballroom dancers (16.5 years of weekly dancing) and 38 nondancers matched for gender, education, and age. The investigators found that the dancers demonstrated statistically significant higher performance on standard cognitive and physiological measures; they also scored higher on a questionnaire that evaluated general health, subjective well-being, and tasks of daily living.

These researchers performed a follow-up study (Kattenstroth, Kalisch, Kolankowska, & Dinse, 2011) comparing national competition dancers (>22 years of experience) with nondancers and found that competitive-level experts achieved higher scores than nondancers on a broad range of standard cognitive and physical measures, especially expertise-related areas such as reaction time, posture, and balance. However, when the researchers compared these results with those of the above 2010 study, they concluded that the intense training to reach the national competition level may not confer additional nonphysical benefits over weekly dancing for 16.5 years.

Some of the same researchers (Kattenstroth, Kalisch, Holt, Tegenthoff, & Dinse, 2013) used an randomized controlled trial (RCT) to determine causality. Two groups who had not participated in regular dance or sports activities for 5 years were randomly assigned to a 6-month dance course (1 hr/week under a professional instructor) or to a usual activities condition. Pre–post testing revealed significantly higher performance (on many of the same measures used in the two previous studies) for the experimental group compared with controls. Furthermore, neither experiments nor controls showed any increase in cardiorespiratory fitness (as measured by spiroergometry), suggesting that the frequently reported cognitive benefit from aerobic exercise (e.g., Erickson & Kramer, 2009; Stratton, Levy, Schwartz, Abrass, & Cerqueira, 1994) was not the operative mechanism here.

Kimura and Hozumi (2012) compared a primarily exercise-based freestyle dance regime (FR) with a more cognitively complex choreographed performance of the same basic moves (CB), both taught by an experienced dance instructor. The researchers found significantly better performance on a standard reaction time task for the CB group and concluded that the choreographed dance facilitated attentional control, a component of executive function.

Hui, Chui, and Woo (2009) decided that a true RCT was impossible because their participants insisted on being in a study group with their friends. However, within each group, participants were randomly assigned to either a dance or a control (usual activities) condition. The dancers took two 50-min sessions per week for 12 weeks, consisting of choreographed movements devised by both a dance instructor and a physical therapist. Results of standard tests showed significant improvements for dancers compared with controls on physical measures. All experimental subjects then answered a researcher-devised questionnaire, revealing that 82.7% considered the lessons to be psychologically very helpful or extremely helpful (the top two categories) and 77% considered it to be physically very helpful or extremely helpful.

Coubard, Duretz, Lefebvre, Lapalus, and Ferrufino (2011) observed increased attentional control (but only for task switching) after 5–7 months among participants who improvised contemporary dance moves compared with demographically similar groups that engaged in Tai Chi lessons or a fall prevention program. However, assignment to condition was not random; it depended on the districts in which participants resided.

These dance studies, using both correlational and experimental approaches, present a fairly compelling picture for dancing as a vehicle for healthy aging, although none of the researchers compared the benefits of dance to those of other art forms.
Expressive/Autobiographical Writing

De Medeiros, Kennedy, Cole, Lindley, and O’Hara (2007) performed a quasiexperiment with retired physicians and their spouses who had enrolled in an 8-week autobiographical writing workshop that used different narrative forms: memoirs, letters, journals, poetry, and so on. Results showed significant pre–post improvement on standard measures of processing speed, attention, verbal learning, and memory. However, the lead researcher with new associates (De Medeiros, Mosby, Hanley, Pedraza, & Brandt, 2011) subsequently performed an autobiographical writing RCT, based on the same intervention, with the same instructor, and over the same time-frame, but with different outcome measures. This time the participants were nondemented older adult residents of continuing care facilities. The researchers found no advantages for the experimental group, reinforcing the importance of randomization and suggesting that original interest in writing and/or a high level of education were necessary for the beneficial effects or that the new outcome measures failed to capture improvement. Chippendale and Bear-Lehman (2012) conducted an 8-week (one session per week) RCT for 45 participants (23 experimentals, 22 controls) using a course in writing life reviews designed to combat depression or potential depression in older adults. We are including this study in the Wellness category because the overwhelming majority (18 of 23) of the experimental participants scored normal on a standard depression scale at pretest. (For controls, 13 of 22 were normal, 8 mildly depressed, and 1 severely depressed). Significant pre–post improvement on standard instruments for experimentals was found compared with controls, with those in the normal range increasing from 18 to 21, those rated as mildly depressed decreasing from 3 to 2, and those rated as very depressed decreasing from 2 to 0 (no significant changes in the control group). According to the authors, these results suggest the existence of preventative elements in this intervention.

Unlike other interventions in this review, the above writing courses were not taught by professional specialists but by the experimenters themselves, utilizing sources such as the Workbook On Writing Life Stories (Sierpina, 2002).

Music

Ten investigations produced a wide variety of results. In one landmark study, Cohen and colleagues (2006) recruited 166 demographically similar older adults. Ninety older adults were invited to join a chorale under a professional leader (singing experience not required), and 76 continued with their usual activities. They were tested individually at baseline with both standard measures and a self-report questionnaire. After 12 months, the chorale group showed positive results on the standard measures. Also, the self-reports showed decreases on number of doctor visits, number of falls, and use of over-the-counter medications, and increases on overall health rating and number of activities performed. These participants were followed for an additional 12 months. Using the same outcome measures, the researchers found similar but somewhat less dramatic results (Cohen et al., 2007).

A limitation to the studies by Cohen and colleagues (2007) is the lack of randomization; only those who volunteered to join a chorale were included in the experimental group. However, Clift, Skingley, Coulton, and Rodriguez (2012) performed an RCT in which they randomly assigned 265 participants to either a chorale performance or a usual activities (control) condition. After 12 weeks, significant decreases were seen for singers on a standard depression/anxiety scale, as well as increases on a quality-of-life scale. Although these advantages were most pronounced immediately after post-testing, they persisted at 6 months.

Hillman (2002) devised a survey instrument to determine the thoughts and feelings of amateur members of a professionally led Scottish musical organization, Call That Singing? (CTS). The 33-item questionnaire (comparing behavior before and after joining CTS) was mailed to 100 older adult members. The return rate was 75%. Results revealed that 89% of respondents regularly attended the weekly rehearsals with more than half using public transportation of up to 90 min. Participants were asked to rate their physical health, emotional well-being, social life, self-confidence, understanding of singing, quality of life, and attendance at other cultural events. Statistically significant increases were found for improved emotional well-being, quality of life, understanding of singing, and a marginally significant increase in self-confidence. Seventy-one percent of respondents had been members of CTS for more than 7 years.

The above research involved singing; other investigators looked at instrumental music. Coffman (2008) performed a survey using standard scales and experimenter-devised questions for
older adult instrumentalist members of the New Horizons International Music Association. Return rate from the musical organizations (bands/orchestras) was 94%. Not all members of each band/orchestra filled out an individual survey, but 53% of the 3,094 members did answering questions such as “Do you believe that playing an instrument in a New Horizons group has affected your health either favorably or unfavorably?” Of the 1,626 answers to that question, 98% were characterized by Coffman (2008) as, “uniformly positive” (p. 383).

A multiyear experiment (Koga & Tims, 2001) examined an existing senior music program in Clearwater, FL. One-hundred participants (half taking organ lessons and half demographically similar nonmusicians) completed standard mental health inventories plus the researchers’ psychological assessment questionnaire every 10 weeks for 50 weeks. Each participant also gave a blood sample. Results showed decreased levels of anxiety and depression and a 90% increase in levels of human growth hormone (hGH). According to the researchers, an increase in hGH (which generally declines with age) is associated with higher energy, better memory, and greater sexual function. No other wellness studies were found that used hGH or any blood measure.

Hanna-Pladdy and MacKay (2011) compared three groups of older adults equated for age, education, and gender distribution (total: 70 participants). The key variable was years of training/playing a musical instrument (>10 years [high activity] vs. 1–9 years [low activity] vs. no training). All participants were tested on a standard comprehensive neuropsychological battery. The main finding was that the musicians with at least 10 years of experience scored significantly higher than the nonmusicians on all tests except verbal memory and that the cognitive performance of the low activity group was between the nonmusicians and the high-activity group, suggesting a possible linear relationship between amount of playing and cognitive performance. No significant pre–post differences were found for the age at which the participants had started training. The researchers suggested that the results were due to cognitive reserve built up during years of training/playing but supplied no specific evidence for this. Also, the researchers felt that musicians might be more prone to engage in cognitively enhancing activities in general, and therefore, they controlled for such general activities in a subsequent two-group study (Hanna-Pladdy & Gajewski, 2012), again demonstrating superior performance for the musicians with more than 10 years of experience over nonmusicians on their standard test battery.

Solé, Mercadal-Brotos, Gallego, and Riera (2010) using a combination of standard assessment measures and their own original questionnaire compared one participatory and two nonparticipatory musical activities (choir: 52 participants, music appreciation class: 19 participants, music therapy: 12 participants.) The latter was described as “...work on and practice [of] functional skills at the physical, cognitive, and social-emotional levels through music” (270). All 83 participants were characterized as healthy. Pre–post results on the standard tests showed no advantages for any of the groups. However, some individual questionnaire responses indicated perceived enhanced social relations and personal development.

Bugos, Perlstein, McCrae, Brophy, and Bedenbaugh (2007) examined working memory and executive function in older adults in an RCT utilizing individualized piano instruction. Sixteen participants were randomly assigned to 6 months of weekly half-hour private piano lessons with a requirement to practice the learned material for 3 hr per week; 15 untreated participants comprised the control group. Individual pre–post testing consisted of two standard cognitive tests. The experimental group performed significantly better on both. According to the authors, these results suggest that individualized piano instruction enhanced cognitive processes, such as attention, concentration, and planning. Delayed testing at 3 months (without intermediate practicing) indicated that the gains were not maintained.

Although not all studies produced significant results, the more rigorous ones presented strong objective evidence for the effectiveness of musical participation.

**Theatre**

In a 25-year series of inquiries, a research team investigated the cognitive processes of professional actors. For many years, the work was purely theoretical (e.g., Noice & Noice, 2001) but eventually took an applied turn, attempting to enhance cognitive functioning and decrease risk factors for dementia in mentally healthy older adults. A series of studies using RCTs and other paradigms repeatedly produced evidence that significant increases in memory, comprehension, creativity, and
problem-solving ability can be produced in adults by a 4-week (eight-session) course in acting, taught by a professional actor/educator, cumulating in full performances of scenes from memory (e.g., Noice & Noice, 2009, 2013; Noice, Noice, Perrig-Chiello & Perrig, 1999; Noice, Noice & Staines, 2004). For example, in a study comparing acting, singing, and waiting-list controls (Noice & Noice, 2009), significant pre–post increases were found for the acting group in word recall, immediate and delayed story recall, problem solving, and verbal fluency. Each study in the series employed a different type of control group to rule out contributions from noncontent specific effects, motivational factors, use of one particular expert instructor, and activation experienced during public performance. In addition to the cognitive gains, significant increases were observed on a personal growth scale and on the observed tasks of daily living.

The same theatre training program is now being tested using neuroimaging in a 3 Tesla MRI system (see http://bic.beckman.illinois.edu/resources.html). Given previous studies that have found cognitive and brain benefits of interventions with older adults ranging from physical activity/exercise training to cognitive training (e.g., Chaddock, Voss, & Kramer 2012; Hertzog, Kramer, Wilson & Lindenberger, 2009), the researchers predict increases in volume in brain regions that support memory and executive control, increases in connectivity in brain regions that support the variety of cognitive processes engaged by theatre training and improvements in the performance of tasks that tap relational memory, as well as attentional and executive controls.

Our literature search yielded three other articles on healthy aging through theatre activities. Davis (1985) eschewed performance from memory and concentrated on improvisational drama. She recruited 15 older adults from a local senior center; they participated in a total of 17 sessions (three per week for 6 weeks) administered by two theatre graduate students. Once a week, the participants individually produced verbal protocols that were subjected to content analysis using a standard scale for measuring immediate effect. She found positive changes in anxiety and in one measure of hostility. No control group was used, so significance could not be assessed.

Pyman and Rugg (2006) performed a qualitative study with a convenience sample of eight community theatre members (five performers and three production personnel). They had participated in an amateur old-time British Music Hall Show and agreed to semistructured interviews. The interviews were computer analyzed, revealing an increased sense of self-enrichment, self-esteem, enhanced learning ability, new friendships, and enjoyment.

Yuen, Mueller, Mayor, and Azuero (2011) recruited 12 participants from low-income senior housing, who had signed up for free acting lessons from a local theatre company (six weekly 2-hr classes). The classes consisted of short dance warm-ups, followed by a wide variety of improvisations and theatre games, and ended with group singing. At no time did the participants engage in performance of written scenes from memory. Results showed a significant pre–post increase on a well-being scale and on the physical but not the mental items of a standard health survey.

All but one of these investigations involved participatory acting classes, producing converging evidence of cognitive/affective benefits, documented by standard assessment instruments. As a result, these theatre studies present a fairly cohesive picture compared with those of other art forms.

Visual Arts

Greer, Fleuriet, and Cantu (2013), using observation, surveys, self-reports and semistructured interviews, tested residents of a housing complex for fixed-income older adults who received free on-site painting lessons from a professional artist/teacher. Results indicated increased social engagement, sense of empowerment, and psychological health. No time requirements were imposed; participants attended as many sessions as health, desire, and conflicting engagements permitted.

Reynolds (2010) performed a qualitative study of 32 retired women who discussed their new-found interest in visual art, defined as painting, pottery, or textile art (weaving, quilting, embroidery for aesthetic, not practical purposes). Phenomenological analysis of the interviews (based on guidelines by Smith & Osborn, 2003) indicated that art engagement enriched participants’ mental lives, set new challenges, developed new skills, encouraged greater attention to nature, and preserved their identities. A recurrent theme was the sensuality of working with colors and textures.

Using a waiting-list design, Kim (2013) performed an RCT with 50 nondemented Korean-American older adults who had scored 26–30 on the MMSE. The experimental group participated in visual art sessions three times a week for 4 weeks. The sessions included a 10- to 15-min phase called “unfreezing” (no further explanation given), 30–40 min of art
making with materials of their choice (acrylic paints, drawing pencils, modeling clay, etc.), followed by group discussion, for a total time of 60–75 min. The experimental group scored significantly better on standard outcome measures for anxiety, affect, and self-esteem. (As stated in the introduction, participants’ ages and the specific outcome measures for all reviewed studies are shown in Table 1).

Discussion

An examination of the 31 reviewed studies reveals overwhelmingly positive cognitive/affective/quality-of-life outcomes for various participatory art forms. Only three research teams performed multiple-linked studies; all others produced one each. Some of the authors (e.g., Bugos et al., 2007; Hanna-Pladdy & MacKay, 2011; Noice & Noice, 2009) speculated on underlying mechanisms but most did not. However, almost all cognitive improvements seen here would be consistent with current theories of brain plasticity and cognitive reserve. (For a discussion of how plasticity and reserve are implicated in arts engagement, see Vance & Crowe, 2006). Unlike the cognitive results, no underlying theoretical threads appear to connect the interesting but disparate psychosocial findings.

Obvious advantages of arts participation include its intrinsically pleasurable and self-motivating nature (e.g., Gutman & Schindler, 2007; Kraus & Anderson, 2013; Stacy, Brittain & Kerr, 2002), the social support inherent in group arts instruction (e.g., Cacioppo & Hawkley, 2003; Seeman, Lusignolo, Albert, & Berkman, 2001), the multimodal nature of participation (e.g., Johnson et al., 2013), and the well-researched benefits of stimulating or productive activities (e.g., Glass, de Leon, Marottoli, & Berkman, 1999; Hultsch, Hertzog, Small & Dixon, 1999; Wilson & Bennett, 2003).

Uninvestigated arts activities that might supply additional evidence of benefits include fiction writing, sketching, interpretive dancing, and photography, assuming that such programs were led by professionals who hold students to reasonable standards of accomplishment. This review reveals dismaying small total number of investigations and not all were well controlled. The only pre–post studies with random assignment to condition were as follows:

Dance: Three studies (Hui et al., 2009; Kattenstroth et al., 2013; Kim & Hozumi, 2012)
Expressive/autobiographical writing: Two studies (Chippendale & Bear-Lehman, 2012; De Medeiros et al., 2011)
Music: Two Studies (Bugos et al., 2007; Clift et al., 2012)
Theatre: Three multivenue studies by the same investigative team (Noice & Noice, 2009, 2013; Noice et al., 2004)
Visual arts: One study (Kim, 2013)

Outcome measures in the reviewed studies varied from well-known instruments that allow replication to original surveys/questionnaires designed to answer individual research interests. To increase consistency, we suggest the following:

1. Standardized measures, common vocabulary, and comparable behavioral outcomes so that effectiveness across interventions can be assessed. Outcome measures in the wellness literature review ranged from memory-assessment instruments (e.g., East Boston Memory Test) to psychiatric inventory (e.g., FN-4), with no two investigative teams employing the same instruments.
2. Consistent use of pre–post designs and appropriate control groups where possible.
3. Large enough samples to be meaningful.
4. Assessment of long-term effects
5. More diverse populations.

Researchers may have to take the lead and initiate investigations because in our experience, the majority of artists/teaching artists have little or no experience in research methodology. Obviously, not all collaborations would lend themselves to RCTs; convenience sampling would often be necessary. To this end, the authors have contacted the president of an organization representing over 800 senior theatre companies throughout the country. We asked her to distribute a brief questionnaire (a modification of Hobfoll’s Community Mastery Scale) to her director members. In turn, they would give the scale to each senior actor in each company before and after the rehearsal/performance process to determine the degree to which the social support inherent in weeks of working together would boost self-perceived mastery. When the pilot data are in, the practicality of this type of indirect data collection (researcher to umbrella organization to individual company directors to participants) can be assessed.

Hundreds of local websites for organizations catering to elders engaged in participatory arts can be easily found. Collaborative investigations...
between area researchers and artist-teachers in such venues might go a long way toward building a more extensive and cohesive knowledge base. For example, EngAGE (2010), based in Los Angeles, offers professional arts instruction to over 5,000 seniors residing in 27 primarily low-income apartment buildings. It seems highly likely that such arts organizations would welcome inquiries from researchers about setting up individual studies on their drama, dance, and other participatory arts programs, since increased evidence of their value to society could make a more persuasive case for funding. Therefore, the ball appears to be in the researcher's court. We hope this study can serve as a call to arms to investigate this vastly under-investigated area. An internet search with terms such as “older adults and arts” followed by the name of the city nearest to the researcher's college or university should uncover many opportunities. If even a few research communities initiate additional rigorous collaborative studies, participatory arts may stand on a much stronger footing as valuable evidence-based additions to the senior health toolkit.

Supplementary Material

Supplementary material can be found at: http://gerontologist.oxfordjournals.org.

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References


“THE CREATIVITY AND AGING STUDY: THE IMPACT OF PROFESSIONALLY CONDUCTED CULTURAL PROGRAMS ON OLDER ADULTS” FINAL REPORT
Executive Summary

In 2001, the National Endowment for the Arts developed a cooperative agreement with The George Washington University to conduct a multisite national study with the aim of measuring the impact of professionally conducted community based cultural programs on the general health, mental health, and social activities of older persons, age 65 and older. Referred to as the Creativity and Aging Study, the project’s formal title is “The Impact of Professionally Conducted Cultural Programs on Older Adults”. No previous study of this nature using an experimental design and a control group had been carried out.

The study takes place in three different sites across the country—the metro Washington, DC area; Brooklyn; and San Francisco. Each site involves two groups—(1) the Intervention Group, comprised of older individuals involved in a weekly participatory art program, and (2) those involved in a Control Group, comprised of individuals involved in their ongoing activities as usual. Each site recruited at least 100 older persons—50 participants in the Intervention Group and Control Group alike. The overall study has had 300 participants—150 in the Intervention Groups, 150 in the Control Groups. The average age in all three sites, Intervention and Control Groups alike, was approximately 80 years of age, The age range has been 65-103 years. Approximately 30 percent of the participants reflect racial and ethnic minorities.

The groups were very well matched in level of functioning at the start of study, with very similar physical health, mental health, and level of activity profiles. They were all interviewed three times by research assistants—(1) at the start of the study to establish a baseline; (2) a year later; and finally (3) two years after the baseline assessment.

Results reveal strikingly positive differences in the intervention group (those involved in intensive participatory art programs) as compared to a control group not involved in intensive cultural programs. Compared to the Control Group, those involved in the weekly participatory art programs, at the one and two year follow-up assessments, reported: (A) better health, fewer doctor visits, and less medication usage; (B) more positive responses on the mental health measures; (C) more involvement in overall activities.

Since the study has collected so much rich data, analyses—especially secondary data analyses—are expected to go on throughout 2007. There is considerable interest on the parts of graduate students to assist in the analyses of the secondary data.

In conclusion, these results point to powerful positive intervention effects of these community-based art programs run by professional artists. They point to true health promotion and disease prevention effects. In that they also show stabilization and actual increase in community-based activities in general among those in the cultural programs, they reveal a positive impact on maintaining independence and on reducing dependency. This latter point demonstrates that these community-based cultural programs for older adults appear to be reducing risk factors that drive the need for long-term care.
Overview of Study in Brief

In 2001, the National Endowment for the Arts developed a cooperative agreement with The George Washington University to conduct a multisite national study with the aim of measuring the impact of professionally conducted community based cultural programs on the general health, mental health, and social activities of older persons, age 65 and older. Referred to as the Creativity and Aging Study, the project’s formal title is “The Impact of Professionally Conducted Cultural Programs on Older Adults”. No previous study of this nature using an experimental design and a control group had been carried out. Results reveal strikingly positive differences in the intervention group (those involved in intensive participatory art programs) as compared to a control group not involved in intensive cultural programs.

Objective of Study

The objective of this project has been to evaluate the effects relevant to general health, mental health, overall functioning, and sense of well being in older persons caused by active participation in cultural programs provided by professional artists involved in visual and literary arts, music, and other cultural
domains. These programs draw upon a range of art and cultural disciplines, such as painting, pottery, dance, music, poetry, drama, material culture, and oral histories in a creative context.

**Historical Context Of Study**

We are at the second major turning point in the contemporary focus on aging—that being looking at potential beyond problems. This focus on potential has profound possibilities for advancing health maintenance, health promotion, and disease prevention efforts. Societal interest in potential in later life is soaring, and it is in this context that a project studying how cultural programs affect older persons could not be more timely.

**Theoretical Background for the Study**

The theoretical background for this study builds upon two major bodies of gerontologic research: (1) Sense of Control and (2) Social Engagement. Studies on aging show that when older persons experience a sense of control—e.g., a sense of mastery in what they are doing—positive health outcomes are observed. Similarly, when older individuals are in situations with meaningful social engagement with others, positive health outcomes are also observed. Biological studies reveal the involvement of mind-immune system pathways playing a protective role here, as described in research on psychoneuroimmunology. In this study, both of these dimensions—individual sense of control and social engagement—are combined. Each time one attends an art class, he or she experiences a renewed sense of control—ongoing individual mastery. Since all of the art programs involve participation and interpersonal interaction with others, social engagement is high.

**Study Design In Brief**

The study was initiated in the fall of 2001. To be eligible for the intervention (art) and control groups, one needed to be 65 years of age or older and generally living independently at the start of the study. The intervention group participants were all involved in intensive community-based art programs, conducted by professional artists, meeting weekly for a period of approximately 9 months a year for two years, with additional time for concerts, exhibitions, and the like. Time was also spent between sessions on practicing and ongoing artistic work. The control group was actively involved in a range of community activities, but not in intensive art programs conducted by professional artists.

Both the intervention and control groups, at all three sites, had an average age of approximately 80 at the start of the study. The age range was 65-100. The intervention and control groups each had 150 participants, for a total of 300 in the study as a whole. Approximately 30% of the subjects represented racial and ethnic minorities. Baseline measures obtained via face-to-face administered questionnaires, in comparing both groups, were very similar at the start of the study. Measures were then repeated yearly for two years.

Measures were obtained through five questionnaires in three domains of functioning:

1. **General Health Assessment**, assessing health and problems across the systems of the body, medication usage, and health utilization data (e.g., doctor visits).

2. **Mental Health Assessment**, utilizing (A) The Geriatric Depression Scale (Short-Form); (B) The UCLA Loneliness Scale; (C) The Philadelphia Geriatric Center Morale Scale.

3. Social Functioning Assessment, utilizing a detailed inventory of the subjects’ activities, with
attention to the nature of the activities and their frequency and duration.

Perspective on Measures of Success

Before listing findings, one should consider an important perspective that persons in the field of aging would point out regarding expectations around results from this study. Given that the average age of the subjects was around 80—greater than life expectancy in the U.S.—clinicians and researchers alike would generally consider interventions in this age group successful, in terms of positive health and social functioning effects, if there was less decline than expected over time in the intervention group as compared to control group.

The significance of the art programs is that they foster sustained involvement because of their beauty and productivity. They keep the participants involved week after week, compounding positive effects being achieved. Many general activities and physical exercises do not have this high engaging, thereby sustaining, quality.

Results

NOTE: This study had a staggered start, beginning with the Chorale in Washington, DC in September 2001, followed by Art Groups in New York City, and then in San Francisco, along with Control Groups in all three sites. Data from all three sites are still being analyzed, with secondary analyses continuing into 2007. Results follow:

Physical Health and Health Services Utilization—Findings

Washington, DC Area Site

• Overall Health: After a year, those participating in the cultural program reported an increase in overall health, while those in the control group reported a decline. After two years, those in the cultural program essentially reported stabilization in overall health, while those in the control group report a decline.

• Doctor Visits: Those in the control group reported a greater increase in the number of doctor visits than those in the cultural program.

• Prescription Medication Usage: Those in the control group reported a greater increase in the number of prescription medications utilized than those in the cultural program.

• Over-The-Counter Medication Usage: Those in the control group reported a greater increase in the number of over-the-counter medications utilized than those in the cultural program.

• Falls: Those participating in the cultural program reported a decrease in falls, while those in the control group reported an increase.

New York City Site

• Description of Health: After a year, both those in the cultural programs and the control reported better health, but the improvement was greater in the cultural programs.

• Number of Doctor Visits: From year 1 to year 2, both the cultural groups and the control group
reported a decrease in the number of doctor visits, but the reduction was significantly greater among those in the cultural programs.

• **Medication Usage:** From year 1 to year 2, trend data revealed a slightly greater increase in medication utilization among the control group as compared to the cultural programs.

    *San Francisco Site*

• **Description of Health:** After a year, participants in the cultural programs reported an increase in their overall health, while those in the control group reported a decline.

• **Number of Doctor Visits:** After a year, participants in both the cultural programs and the control group reported a decline in doctor visits, but those in the cultural programs reported a greater decline.

• **Medication Usage:** After a year, those in the cultural programs reported a decline in medication usage, while those in the control group reported an increase.

• **Falls:** After a year, participants in both the cultural groups and the control group reported a decline in falls, but the reduction was greater among those in the cultural programs.

    *Mental Health—Findings*

    *Washington, DC Area Site*

• **Morale:** Participation in the cultural programs had a more positive impact on morale than being a part of the control group

• **Depression:** Over a two-year period, those in the cultural programs improved on the depression assessment, while those in the control group did less well.

• **Loneliness:** Data on participants in both the cultural program and the control group revealed a trend toward improvement.

    *New York City Site*

• **Morale:** Trend data suggest that participation in the cultural programs had a slightly more positive impact on morale than being in the control group.

    *San Francisco Site*

• **Morale:** Trend data suggest an improvement in morale among those participating in cultural programs, with a decrease among those in the control group.

• **Depression:** Trend data suggest that participation in the cultural programs had a more positive impact on depression than being a part of the control group.

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**NOTE:** Across groups, qualitative, descriptive accounts by staff depict more a more positive impact on the mental health measures among those participating in the cultural programs as opposed to those in the control group.
Involvement in Social and General Activities—Findings

Washington, DC Area Site

• Over a two-year period those participating in the cultural program reported an increase in the total number of activities they were involved with, while those in the control group reported a reduction.

New York City Site

• From Year-1 to Year-2 of the study, those in the cultural programs reported a significantly greater increase in the overall number of activities they were involved with as compared to the control group.

San Francisco Site

• Trend data point to those in the cultural programs reporting a greater increase in the overall number of activities they were involved with as compared to the control group.

Conclusions From Results

NOTE: What is remarkable in this study is that after just a year into the study the cultural groups, in contrast to the control groups, were showing areas of actual stabilization and improvement apart from decline—despite an average age which is greater than life expectancy. This pattern then continued throughout year two of the study. These results point to powerful positive intervention effects of these community-based art programs run by professional artists. They point to true health promotion and disease prevention effects. In that they also show stabilization and actual increase in community-based activities in general among those in the cultural programs, they reveal a positive impact on maintaining independence and on reducing dependency. This latter point demonstrates that these community-based cultural programs for older adults appear to be reducing risk factors that drive the need for long-term care.

Next Steps

Due to the staggered start among the three research sites, analyses (primary and secondary) are still in progress. Since the study has collected so much rich data, secondary data analyses are expected to go on throughout 2007. There is considerable interest on the parts of graduate students to assist in the analyses of the secondary data.

Dissemination of Results to Date

Publications

As of April 2006, there have been three publications of the initial results of the study, with two others pending.
3. The initial results, presented at the April 16, 2004 Annual meeting of the American Society on Creative Aging.
4. Presently, a major publication on the study is anticipated by June of 2006 in “Generations”, a journal of the American Society on Aging.
5. Presently, a major publication is in process, having been submitted to “The Gerontologist” at The Gerontologic Society of America.
6. In a series of new publications that will be appearing throughout 2006-2008 as additional data analyses—especially secondary data—are completed.

Selected Presentations at Scientific, Professional, and National Meetings

Numerous presentations have been made at major scientific and professional meetings throughout the country, with many new presentations scheduled. Selected presentations to date include:
- The 2004 Annual Meeting of The Gerontologic Society of America (and scheduled for 2006 Annual Meeting)
- The 2004 Annual Meeting of the Society of the Arts in Health Care (and scheduled for 2006 Annual Meeting)
- The 2005 Mini Conference on Creativity and Aging for the 2005 White House Conference on Aging
- The 2005 Annual Meeting of the Wallace Foundation
- The 2005 Annual Meeting (“Creative Connections”) of National Guild of Community Schools of the Arts
- The 2005 Annual Meeting of the American Art Therapy Association
- The 2005 Annual Meeting of Grant Makers in Aging
- The 2006 Annual Meeting of the American Society on Aging
- The 2006 Annual Meeting of the Society for the Arts in Health Care

- In addition, numerous other university-based, state, local, and other presentations have been made about the study since it began in 2001. Many others are being scheduled.

Public Media

Media coverage of this Creativity and Aging Study has been truly extensive, and too numerous to delineate. Two of the biggest coverages have been:
- The Associated Press coverage in 2004 that appeared in 200 newspapers around the world. Dr. Cohen was inundated with calls following this coverage, leading to the publication of early results for public access on his Center’s website delineated above.
- Coverage of the study by The CBS Evening News with Dan Rather, following the presentation of initial results at the 2004 Annual Meeting of the American Society on Aging. Online viewing of this CBS coverage can be accessed at the following web address: [http://www.cbsnews.com/stories/2004/05/21/eveningnews/main618935.shtml](http://www.cbsnews.com/stories/2004/05/21/eveningnews/main618935.shtml)

- Since publication of Dr. Cohen’s new book, “The Mature Mind” (the last chapter focusing on the Creativity and Aging Study, in January of 2006, Dr. Cohen has had more than 100 media interviews, many of which expressed particular interest in the Creativity and Aging Study.

NOTE: This Final Report Concludes with selected Snapshots of Participants from the 3 Study Sites.
SNAPSHOTS OF PARTICIPANTS FROM THE 3 STUDY SITES

Participant in one of the Brooklyn art making groups, reflecting on her newly found sense of meaning and mastery: “This is my first time as an artist. Before one year ago, I only knew work”.

Member of a largely Spanish speaking, jewelry making group, at the Brooklyn site, describing the impact of this experience on his marriage. “This class saved my marriage. I make my wife something beautiful every week.”

Participants in the art groups of the San Francisco site, demonstrating their accomplishment of mastery and control, and sense of satisfaction in the process.

The Senior Singers’ Chorale from the Washington, DC area study site, performing at the Millennium Stage of the Kennedy Center—one of several appearances they have made there.

Oldest participant in the study—turned 101 during 2005—reading the poem he wrote to the Brooklyn site poetry group. These groups provide strong camaraderie.
Are you concerned about developing thinking and memory problems in old age? Research suggests there are ways to increase the odds you will stay sharp, including mental stimulation, physical exercise, and healthy eating.

A just-published study from the Mayo Clinic points to yet another activity that, consistently pursued for decades, may be even more effective at warding off cognitive decline: making art.

The study, which featured 256 people in their mid- to late-80s, pinpointed various activities that either predicted cognitive impairment or protected against it during the final years of life. As noted in other studies, an active social life—whether in midlife or in both midlife and late life—was linked with fewer instances of mild cognitive impairment. So was late-in-life computer use.

"Long ago, 'an apple a day keeps the doctor away' was a common expression. Perhaps today, the expression should expand to include painting an apple, going to the store with a friend to buy an apple, and using an Apple product."

But the behavior that had the greatest protective effect, at least in this relatively small study, was “artistic activity,” such as painting, drawing, and sculpting.

“Long ago, 'an apple a day keeps the doctor away' was a common expression,” Dr. James Galvin writes in a comment accompanying the study, which is published in the journal Neurology. “Perhaps today, the expression should expand to include painting an apple, going to the store with a friend to buy an apple,
expression should expand to include painting an apple, going to the store with a friend to buy an apple, and using an Apple product.”

Since participants reported on their midlife activities as well as what they were engaging in at the current time, the researchers were able to parse not only which activities appeared to protect against mild cognitive impairments, but when they were the most effective.

For instance, engaging in social activities in midlife was linked to fewer memory or thinking problems, as long as people did so so both in midlife and late in life. The relatively few people who only began socializing as seniors had cognitive impairment rates equal to those of people who, as a rule, didn't engage in social activities at any point.

In contrast, learning how to use a computer late in life had a highly positive impact—actually greater than for those who picked up the habit during their middle years. Perhaps seniors who discovered the joys of surfing the Web provided their brain with a new form of helpful stimulation.

The number of participants who reported they were artists was relatively small: 45 of the 265. As a group, they were significantly less likely to suffer from incidents of cognitive impairment than those who never touched an easel or a piano key.

But the subset of 18 who reported they took part in such activities both in midlife and later in life (as opposed to stopping in their senior years) did phenomenally well, with only three reporting incidents of mild cognitive impairment. That 16.7 percent rate compared to 49.2 percent among those who were not engaged in artistic activities.

Regularly engaging in craft activities such as woodworking, quilting, or sewing was also linked with fewer incidents of mild cognitive impairment, as was (to a lesser but still significant extent) participating in “social activities.” But at least in this population, those who were engaged in the arts were the least likely to suffer from such problems.

“I really do not know why the results for engaging in the arts are stronger than other activities,” says lead author Rosebud Roberts. “These activities may all have a role in keeping brain cells stimulated, and may help develop new neural pathways. Or continued engagement may enable a person to develop a larger cognitive reserve from which to recruit alternate brain cells to take over function from cells which no longer function.”

In any event, these results suggest that behaviors intended to ward off mild cognitive impairment “may need to begin in midlife and persist throughout late life,” as Galvin puts it in his commentary. So if you have an itch to start painting or learning a musical instrument, don’t wait until retirement. Start now.

Findings is a daily column by Pacific Standard staff writer Tom Jacobs, who scours the psychological-research journals to discover new insights into human behavior, ranging from the origins of our political beliefs to the cultivation of creativity.
“AT THE INTERSECTION OF ARTS AND AGING”

NATIONAL INSTITUTE ON AGING
Many people enjoy some kind of arts activity. Whether it's singing in a church choir, attending the performance of a play, visiting an art museum, or tap dancing along with a Fred Astaire movie, participating in the arts makes many of us feel good.

But does it have any effect on the health and well-being of older people? Does it make a difference if you listen to music or play music? How often do you need to engage in some kind of arts activity—every day, once a week, twice a month, every once in a while? Can participating in an arts activity slow or stop cognitive decline?

To explore such questions about the arts as a possible promoter of good health, NIA has teamed up with the National Endowment for the Arts (NEA), the National Center for Complementary and Alternative Medicine (NCCAM) at NIH, and the NIH Office of Behavioral and Social Science Research (OBSSR).

“There are many research questions about aging and the arts,” said NIA Deputy Director Dr. Marie Bernard. “Anecdotally, there are stories about how much older people benefit from the arts. Many long-term care and senior centers have arts programming. On the face of it, this would seem to be valuable, but we don’t have an evidence base that they work.”

In March 2011, the U.S. Department of Health and Human Services and the NEA hosted a meeting to discuss research on the arts and human development. The goal was to find ways to use the arts to improve people’s lives. Participants encouraged a federal partnership to promote research and recommended a literature review and gap analysis to identify areas for future research.

A Federal Interagency Task Force on the Arts and Human Development was created to encourage more and better research on the role that the arts might play in helping people reach their full potential at all stages of life. In November 2012, the NEA, NIA, NCCAM, and OBSSR hosted a workshop at the National Academy of Sciences to review the current state of research on the arts, health, and well-being in older Americans (PDF, 2.3MB).

“Maintaining health and independence are critical elements for older people to live in their own homes and communities,” said Dr. Lis Nielsen, chief of the Individual Behavioral Processes Branch in NIA’s Division of Behavioral and Social Research. “We know that health and well-being are not just addressed in the clinic or doctor’s office, but through interventions in people’s everyday lives. Participating in the arts is one way to intervene, and NIA sees many opportunities for research that can deepen our understanding of the relationship of arts to health in aging.”

NIA has included arts programs in two recent program announcements (PAs): Translational Research to Help Older Adults Maintain their Health and Independence in the Community (R01) and (R21). The goal is to support collaborative, translational research between academic research centers and community-based organizations to develop and test interventions and programs to help older people remain healthy and independent.

Most of the past studies on the benefits of the arts have not met the rigorous standards of scientific research. Shortcomings include:

- Small, nonrandom, and poorly defined samples
- Lack of an adequate control group
- Interventions that cannot be easily replicated because they are not well defined, particularly with regard to the frequency and intensity of the activity
- Inconsistent and inadequate measures of health outcomes
- Weak statistical methodology and overstated conclusions
Recently, NIA funded an arts-related project led by Drs. Tony and Helga Noice of Elmhurst College in Elmhurst, IL. The researchers are expanding a theater training program for older people, which in initial studies showed improved cognition and social engagement for participants.

“We began our program in retirement homes in the Chicago area,” said Dr. Helga Noice, a psychologist. “We asked residents to sign up for a singing class, acting class, or waiting-list control group. We randomly assigned them to one of the three groups, but didn’t tell them in advance which one they were getting so that we didn’t bias the selection.”

Dr. Tony Noice, an actor and educator, conducted the theater training classes, which usually had between 16 and 20 participants in each of the treatment and control groups. Participants ranged in age from 65 to 94, with most in their 70s. Eight 1-hour sessions were held over a 4-week period. Participants were tested on measures of cognition, psychological health, and observed tasks of daily living plus a quality-of-life scale.

“On the objective cognitive measures, the acting group improved more than the singing group and the control group,” said Tony Noice. “On the quality-of-life measures, singing showed the same improvement as acting. There was also a social benefit.” Another study, comparing visual arts and acting produced similar results, and some 4 months after the training, the researchers found that the improvement had not declined.

The Noices are currently extending this research with colleagues at the University of Illinois in Urbana-Champaign. They have added functional MRI scans before and after the training program to document brain changes. “We want to see if the anticipated areas of the brain show physical change,” notes Helga Noice. “We will follow participants for at least 6 months to see if they retain the cognitive benefits of the training.”

“We believe this program can be implemented fairly easily on the community level,” said Tony Noice. “If a university psychology department collaborates with the theater department, it’s a good opportunity for junior faculty and graduate students to gain experience in conducting a research project. Acting is a particularly good choice for this type of program. Most other arts activities like playing a musical instrument, singing, or dancing, require some previous training or talent. With acting instruction, you just have to be able to walk, talk, and think.”

If a program is going to seek future funding and be adopted in a wider community, it needs to show that it has a proven health benefit and can be cost-effective. Only a few previous studies have included a cost-benefit analysis.

“If arts programs do improve the health and well-being of older people, they need to be accessible,” noted Dr. Nielsen. “One way to make them accessible is to make them affordable. We need to find out the costs involved in making arts programs available to older people. Also, in these tight economic times, we need to be able to show public and private funders that their dollars are being put to good use.”

Another critical element of the program is collaboration between academic researchers and community-based arts programs. Artists and researchers think differently and approach problems in ways unique to their disciplines. Working together on developing an arts program for older adults provides the opportunity for these groups to learn from each other, as well as from other involved professionals.

“We need academic and community partnerships,” commented Dr. Bernard. “There are dedicated people in the arts and aging who should partner with the academics. This is an opportunity to bring people together in interdisciplinary teams from different aspects of aging research. Researchers in neuroscience, geriatrics, and psychology can work with professionals from music, theater, dance, and other art forms on different issues.”

The PAs will remain open until May 2014. See the specific funding announcements for details and application deadlines.
“BRAIN THEATRE: A PSYCHOLOGIST AND AN ACTOR EXAMINE THE IMPACT OF ACTING CLASSES ON AGING”

ELMHURST COLLEGE, STUDENT AND FACULTY RESEARCH
Brain Theatre

A psychologist and an actor examine the impact of acting classes on aging.

BY MEGAN FELLMAN
Sir Ralph Richardson, the British stage actor, called his profession “the art of keeping a large group of people from coughing.” Helga and Tony Noice have their own take on the actor’s craft, one that is less jaded and altogether original.

The couple, both Elmhurst College faculty members, believe that the specialized techniques that actors use to bring their characters to life may also be employed to delay or even reverse cognitive decline among the aging. They are engaged in a collaborative research project that draws creatively on their respective expertise in psychology and the theatre.

The Noices are investigating whether training in various acting techniques—from role-playing skills to interpretive methods—might have a positive effect on cognitive functioning in older people. Over the last seven years, they have completed a series of three related studies, one in Switzerland and two in the Chicago area. They discovered that after their elderly research subjects received instruction in acting—a new experience for them—the subjects experienced significant improvement in memory and other cognitive functions. Their general sense of psychological well-being also improved.

“The more stimulation you offer the brain, the more you increase the chances that the brain will remain healthy throughout your life,” says Helga Noice, a professor of psychology. “The acting process produces a particularly high degree of stimulation.” An actor, she notes, needs to be engaged on many levels: emotional, physical, and intellectual. All of this complex activity appears to alter neural connections in the brain.

Their innovative, interdisciplinary research project is a perfect fit for Helga Noice, a cognitive psychologist with expertise in human memory, and Tony Noice, a professional actor who teaches theatre and speech as an adjunct professor at Elmhurst. The couple spent many years studying acting from a theoretical point of view, looking at how the expertise of actors differs from that of scientists, musicians, and visual artists. In 1996, the government of Switzerland invited them to conduct a pilot study in which they taught the techniques of stage acting to older adults. The subjects’ verbal recall and recognition improved, even though they were not taught any memory techniques. “New research indicates that the brain is much more plastic than we thought,” says Tony Noice. “The brain can literally be modified through activity. This is what we are trying to do with acting. In the training we emphasize that the participants must actively put themselves in the place of the character—to intimidate, placate, or plead with someone for real.”

In 2001, Helga Noice received a three-year grant from the National Institute of Aging (NIA) to conduct further research, this time including the visual arts. The 124 participants in the NIA study were predominantly college-educated older adults who lived independently in the western suburbs of Chicago, drove themselves to the training site, and were an average of 73 years old.
One group acted as a control and received no training. A second group received visual arts training twice a week for four weeks. Lynn Hill, an associate professor of art at Elmhurst, led the visual arts component; she had the participants view and evaluate paintings. The third group were trained in the theatre, also for four weeks. Tony Noice encouraged each of his subjects to go well beyond the scripts, to interpret each character’s personality and motivations.

When the subjects were tested at the end of the study, the visual arts group showed measurable improvement in cognitive skills. The theatre group showed, as it were, dramatic improvement. Their word recall improved by 18 percent; their problem-solving ability by 55 percent. In addition, the theatre students showed a substantial improvement in their perceived quality of life. All of these benefits continued to be observed four months after the sessions ended.

Recently, supported by a grant from the Elizabeth Morse Charitable Trust, the couple went to work with residents of Plymouth Place, a continuing-care community in LaGrange Park. The study group included 18 people—average age, 82. They came from both the independent living and the assisted living sections of Plymouth Place. This time, the participants studied acting only.

As in the earlier study, the cognitive skills of the participants improved in several areas, including word recall, working memory, and problem solving. Their self-esteem also improved. What’s more, a little theatre group has sprouted at Plymouth Place, with Tony Noice providing direction. In December the group staged the short melodrama The Widow’s Plight.

In future research, the couple would like to study less educated populations, to see if they can obtain the same improvement in mental and emotional well-being. They also hope to compare the impact of acting with that of other creative activities, such as painting, music, and creative writing.

The impact of their findings may someday have a substantial impact on an aging population. “If we can keep our cognitive powers as long as possible,” says Helga Noice, “we can avoid premature loss of independence and lead more fulfilling lives.”
“DANCE FOR PD”
NEUROLOGY AND PRECLINICAL NEUROLOGICAL STUDIES
Dance for PD: a preliminary investigation of effects on motor function and quality of life among persons with Parkinson’s disease (PD)

Olie Westheimer · Cynthia McRae · Claire Henchcliffe · Arman Fesharaki · Sofya Glazman · Heather Ene · Ivan Bodis-Wollner

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Abstract In 2001, Dance for Parkinson’s disease (DfPD®) classes for persons with Parkinson’s disease and care partners were developed by Brooklyn Parkinson Group and Mark Morris Dance Group. A previous assessment suggested that individuals experience positive benefits from DfPD®. The current preliminary uncontrolled study investigated the effects of a dance intervention on several motor and quality of life aspects of PD following 16 sessions (8 weeks; 20 h) taught by professional dancers/teachers. A mixed methods design was used to determine the effects of the class. Assessment instruments administered at baseline and post-intervention included the Hoehn and Yahr, UPDRS (part III), Berg Balance Scale, Beck Depression Inventory, and PDQ-39 and individual interviews after the last class. Hoehn and Yahr scores ranged from 1 to 4. UPDRS III total scores and sub scores of gait and tremor improved following the intervention ($P < 0.05$). During interviews participants reported physical, emotional, and social benefits. Despite the diversity of baseline measures post-class interview results were consistently positive across the sample. Twelve of 14 subjects (mean age 66.2) with idiopathic PD completed the sessions. After 4 years, four participants regularly attended DfPD® classes. The low attrition rate and continued attendance suggest notable adherence to the DfPD® class. The importance of the results is both clinical and conceptual, highlighting the value of using both quantitative and qualitative data to evaluate the benefits of dance with PD.

Keywords Dance for Parkinson’s disease · Mixed methods · Quality of life · Motor symptoms · Cognitive strategies

Introduction

The cardinal features of Parkinson’s disease (PD) are resting tremor, rigidity, and bradykinesia, all of which can negatively impact the fluidity and pacing of movement. Motor manifestations of PD may be compounded by non-motor symptoms, such as apathy and depression (Jones et al. 2009; Pontone et al. 2009), and often lead to isolation (McRae et al. 2009).

Recent reports have found positive effects on balance, locomotion, gait, and aspects of quality of life from several types of dance classes (Westheimer 2008; Earhart 2009; Hackney et al. 2007; Hackney and Earhart 2009a, b, c; Heiberger et al. 2011; Houston and McGill 2012). Execution of dance sequences requires motor planning and memory. Dance training employs strategic methods such as visual focus, rhythm, imagery, proprioceptive input, and...
imitation of discrete parts of dance sequences to gain superior control of posture, balance, and movement. Dance is an esthetic, communal activity and a form of exercise that develops muscle flexibility and strength. The potential for persons with PD to experience the joy of dance and possible physical and cognitive benefits led to the development in 2001 of Dance for Parkinson’s Disease® (DfPD®), a collaboration between Brooklyn Parkinson Group (BPG) and Mark Morris Dance Group (MMDG), an internationally known company based in Brooklyn, to provide dance classes for the Parkinson community and to train other teachers.

There is a limited but increasing number of studies on the effects of dance on people with PD (Hackney and Bennett 2014). Few of these have evaluated both standard measures and qualitative perspectives of patients on the effect that dance has on them. Here we explored both objective and subjective effects of dance with the same participants.

An initial evaluation of DfPD® in 2006 (Westheimer 2008) used the quality of life scale (QOLS) (Burckhardt and Anderson 2003). Dance participants (n = 15) reported improvement in feeling fit and vigorous, socializing, engaging in active recreation, and understanding of self. Five participants answered open-ended questions about the effect of the classes on the body, mental attitude, and quality of life. While results of the QOLS documented some improvements, responses to open-ended questions suggested the classes had a more intense impact and broader range of positive effects than found on the QOLS. Respondents described their experience as “graceful,” “symptom-free,” “courageous,” “focused,” “much happier,” “confident,” “optimistic,” “exhilarated,” and “fluid.” In an effort to further investigate the impact of DfPD®, we designed this exploratory study with participants serving as their own control in an 8-week series of DfPD® classes (16 sessions, 1.25 h twice a week for a total of 20 h). Participants volunteered for the study and had not danced as adults before. They were not members of the ongoing dance class. The study class was implemented over the summer break. The questions addressed were (1) are there changes in motor symptoms and/or QOL as assessed by standardized rating scales following the intervention? (2) What do qualitative interviews reveal about how DfPD® impacts QOL among persons with PD?

Methods

Participants

Fourteen participants with idiopathic PD [Hoehn and Yahr (HY) stages 1–4] were enrolled; all were first-time DfPD® dancers who volunteered for the summer session. In designing this pilot study no power analysis was conducted to determine the optimal sample size. Instead, the purpose of this study was to determine the effect size associated with the intervention that could be used in power analyses for subsequent evaluation studies. Of these, 12 (6 women and 6 men) completed the classes and all assessments. Attrition rate was low (14 %). Average attendance at each class was 10. Demographic information is presented in Table 1. Participants were recruited through neurologists and by referral from other patients. Inclusion criteria were as follows: age over 30; diagnosis of PD confirmed by a movement disorder specialist; mobility without or with assistance; ability to give informed consent; and medical clearance.

The study was approved by the Institutional Review Board of SUNY Downstate Medical Center and has, therefore, been performed in accordance with the ethical standards laid down in the 1964 Declaration of Helsinki and its later amendments. All participants gave their informed consent prior to their inclusion to the study.

Dance classes

Classes were held at Mark Morris Dance Center and led by the dance teachers who developed the DfPD® curriculum with BPG. Teachers’ qualifications included over a decade of experience observing and analyzing ways dance students initiate and execute movement and at least 6 years conducting specialized dance classes for persons with PD. The teaching method uses verbal instruction, imagery, attention to visual focus, repetition, rhythm, and imitation of movement, all with piano accompaniment.

The class started with 40 min seated warm up followed by 15 min standing at the barre, and 20 min moving across

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the floor. Participants were asked to carry out varied movements such as repeated stretching of the leg and pointing the foot (“tendu,” a basic ballet step), flexing the foot, moving feet and legs at angles side to side, arm extensions and curves in various directions (port de bras). Leg and arm movements were combined and varied. For instance, port de bras and tendu might be performed in opposition; or, dancing sharply (staccato) or smoothly (legato). This was done seated and at the barre where participants were taught to perform plié (bending the knees with feet in various positions). In addition, some modern, jazz, and tap moves were taught. Movement across the floor emphasized walking in a variety of ways including gliding, marching, waltz, and combinations of these. See link to video: http://www.brooklynparkinsonsgroup.org/classes/dance-for-pd.

Volunteer dance students or an instructor danced with persons with balance problems or difficulty standing. One participant used a walker while moving across the floor. A second ballet barre was available to hold for unstable participants. An assistant stayed with each of these persons. Participants were reminded to adapt or do part of difficult movements and if tired, to rest.

Measures

Quantitative data were collected at baseline and post-intervention and qualitative data were collected immediately after the last class. Physical assessments were performed before the first class, and immediately after the last class. Participants reported taking dopaminergic medication on average 139 (SD = 109) min before the baseline assessment and 179 (SD = 121) min before the final assessment. Patients were not asked to change their medication timing; rather, the assessment timing was accommodating the patient’s routine medication schedule. Instruments included several standard PD measures: Hoehn and Yahr (HY; stage of disease) (Hoehn and Yahr 1967), Unified Parkinson’s Disease Rating Scale (UPDRS; Part III, motor scores) (Fahn and Elton 1987), and the Parkinson’s Disease Questionnaire [PDQ-39: a self-report measure of quality of life (QOL)] (Jenkinson et al. 1997), the Berg Balance Scale (BBS: a measure of performance on balance tasks of varying difficulty) (Qutubuddin et al. 2005), and the Beck Depression Inventory (BDI: a self-report measure of depression) (Beck et al. 1996). The interpretation of improvement is supported by statistical test and previous UPDRS motor score research. The clinically important difference (CID) on the UPDRS scaling was established with 2.3 points (minimal CID) and with 5.2 points for a moderate CID (Shulman et al. 2010). The HY, UPDRS, and BBS were administered by one of four physicians, all certified as UPDRS raters. Each participant was assessed while in his/her best ON medication state. One co-author experienced in qualitative research methods (CM) developed broad, structured, open-ended interview questions to learn about the experience of the class from the participants’ perspectives. Interviewers were provided with a scripted introduction and questions for this part of the study; interviews were conducted and audio-recorded by physician assessors after the last class.

Analyses

Paired-samples t tests were used to examine change over time on the outcome variables.

A correlational analysis was used to investigate a possible relationship between the change in total UPDRS III scores and time interval between last dose of medication and evaluation. Statistical significance level was set at $P \leq 0.05$. The qualitative interviews were transcribed and analyzed through a process of coding and categorization (Lincoln and Guba 1985) for salient themes. Because of the broad range of physical functioning noted at baseline (e.g., HY 1–4), and to determine if there were differences in subjective responses to the class based on pre-intervention level of functioning, the patients were divided into two groups (“Better” and “Worse”) based on PDQ-39 single index (PDQ-39SI), or summary, scores at baseline (Jenkinson et al. 1997). Although no statistical analyses were performed (to avoid Type I error), average scores of all measures were calculated to examine possible differences in scale scores between participants in the “Better” and “Worse” groups.

Results

Motor symptoms

There was a significant change from baseline to post-intervention in total UPDRS III, an improvement of 10.4 % over baseline (Table 2). There was a remarkable significant change in the UPDRS III gait subscore (item 27), which improved by 26.7 %. There was improvement in the UPDRS rest tremor subscore (item 20), which improved 18.5 %, but the difference was not statistically significant. Effect sizes, which indicate the standardized size of differences, were small to medium for difference tests significant at $P < 0.05$ (Cohen 1988). There was no relationship between change in total UPDRS III scores and precise medication timing. There were no significant changes in the HY or BBS scores.

Quality of life

As shown in Table 2 there were no significant changes from baseline to post-intervention in PDQ-39SI or BDI scores.
Pre- and post-intervention scores for the “Better” and “Worse” groups are presented in Table 3. The table shows that the UPDRS-III score in the “Better” group changed by 4.5 points and in the “Worse” group by 1.5 points. However, these changes did not reach statistical significance.

Qualitative interviews

Responses to five interview questions are shown for the six participants in each group (“Better” and “Worse”), in Tables 4 and 5, respectively. Through the process of coding and categorization used to analyze the transcripts, it was found that the answers participants gave in the interviews were very similar, despite the differences between the two groups in their scores on HY, UPDRS III, BBS, BDI, and PDQ-39 as shown in Table 3. Individuals in both the “Better” and “Worse” groups mentioned physical, social and emotional benefits of the class.

All participants said they would attend the class if it were ongoing. Four participants (33%) continue to attend DfPD® classes regularly. The main reasons for dropping out were not dance related. The answers to how long positive effects of the class lasted ranged from 1 hour to 1 day. One person stated, “The glow lasts an hour or so. Self-confidence lasts until the next major freeze or fall (3–5 days).”

Discussion

Over the 20-h of dance classes, the total UPDRS III (motor) score improved by an average of three points (10.4%) for the group. This result is statistically significant and represents improvement that demonstrates a “minimal” clinically important difference (CID, Shulman et al. 2010) that patients can recognize and value. This improvement is consistent with the change noted in other studies assessing the impact of dance in PD (Hackney and Earhart 2009b, c).

Of the items within the UPDRS III, gait showed significant change while tremor showed a trend to improvement. Gait impairment is a major problem in PD. In addition to being a motor deficit it often leads to anxiety and social isolation. Our study shows the beneficial effect of dance on gait. Further studies on dance may directly address the effect of dance on anxiety.

There was no change in the Hoehn and Yahr staging over the short period of the study. The HY score broadly reflects level of disability and all three cardinal symptoms of PD as well as gait and balance. The HY was included as a descriptive instrument to document stage of disease for participants in the study. Thus, change in the HY score was not expected.

Considerable evidence has emerged of subtypes of motor impairment in PD, particularly for gait and tremor (Burn et al. 2012; Factor et al. 2011). Our results suggest an improvement in these areas and the potential utility of examining the sub-scores of the UPDRS III in a larger sample.

Our multisensory method consists of giving auditory, visual, and cognitive cues. There are reasons why the
A preliminary investigation of effects on motor function and quality of life

Table 4 Interview responses for each person in “Better” Group

<table>
<thead>
<tr>
<th>“Better” group</th>
<th>What did you get out of class?</th>
<th>How has class impacted quality of life?</th>
<th>What brings you back to class each week?</th>
<th>Anything changed in you because of class?</th>
<th>Anything else to tell us?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant #1</td>
<td>Sense of companionship; feeling fortunate because not many symptoms yet</td>
<td>Looked forward to classes 2×/week; anticipating class improved QOL</td>
<td>Enjoyed it; made a commitment and tried to honor it</td>
<td>Not much</td>
<td>Very positive communal experience; pleased to see improvements in others</td>
</tr>
<tr>
<td>#4</td>
<td>Enjoyed it; less stiff and loosening up a bit; friendly people</td>
<td>Not as stiff; feels looser</td>
<td>Enjoyed people in the group</td>
<td>Not really</td>
<td>Enjoyed it</td>
</tr>
<tr>
<td>#6</td>
<td>More aware of health and how the body moves; more aware of how to use his body</td>
<td>Dance impacts life along with other activities</td>
<td>Routine; moving and dancing; meeting other people with PD</td>
<td>Hopes class can slow effects of PD</td>
<td>Wanted to know if results of study would impact program</td>
</tr>
<tr>
<td>#8</td>
<td>Enjoyed the exercise; relaxing and calming</td>
<td>Something interesting to learn; enjoyed it; it was challenging</td>
<td>Commitment</td>
<td>Exercise and music bring peace of mind</td>
<td>Got to know and appreciate people; friendly environment</td>
</tr>
<tr>
<td>#10</td>
<td>Camaraderie; movement was beneficial; good to have exercise for people at different levels</td>
<td>Looked forward to class; psychological effect impacted “quality of everything”</td>
<td>Movement; exercise; “mixing with people; “teachers are good”</td>
<td>Looked forward to coming; had positive expectations</td>
<td>Experience was “all positive;” had psychological benefits; class was too short</td>
</tr>
<tr>
<td>#11</td>
<td>Walking better; more fluid movements</td>
<td>Walking better</td>
<td>“Just the enjoyment of it;” friendly people; loved the music and dance experience</td>
<td>Walks faster and swings arms more</td>
<td>“Teachers are wonderful;” meeting others with PD was helpful</td>
</tr>
</tbody>
</table>

Participants were sorted into “Better” and “Worse” groups based on pre-intervention PDQ-39SI scores. These are responses from the “Better” group.

multisensory cueing method used in classes might contribute to improvement of gait. Studies show that an auditory cue of a steady rhythm or beat in music or from a metronome helps persons with PD walk in synchrony with the beat they hear. Visual cues, such as equidistant stripes to step over, and imagining long steps, increase stride (Morris et al. 2010; Nieuwboer et al. 2007). In dance class auditory rhythm from music is combined with instructive verbal imagery which serves as a cognitive cue (“March across the floor like the leader of a parade”) and with the visual cue of copying the dance leaders.

The potential importance of cognitive cues is suggested by recent studies which indicate cholinergic impairment in PD (Bohnen et al. 2013). In addition to well-known effects on cognition, cholinergic pathways may be responsible for aspects of gait dysfunction observed in PD (Bohnen et al. 2013; Chung et al. 2010). Possibly, the cognitive strategies used repeatedly in dance classes engage cholinergic pathways and stimulate more focus on movement tasks.

Falls related to postural instability are a significant source of morbidity and mortality in PD. Previous dance intervention studies have demonstrated modest, but significant improvements on the BBS (Earhart 2009; Hackney and Earhart 2010), which we did not find. One potential reason is that in the DfPD study participants spend one-third of class time seated. Other dance interventions that have been studied (Tango and Foxtrot/Ballroom) are perhaps more intensive in their demands upon balance mechanisms than DfPD. However, BBS is only modestly effective in predicting falls (Leddy et al. 2011; Neuls et al. 2011). Other balance measures, such as the BESTest and the miniBEST, may be more helpful in detecting changes in balance in individuals with PD (King et al. 2012; Leddy et al. 2011). A battery of balance measures has been suggested as a more comprehensive way of assessing interventions (Dibble et al. 2008; Neuls et al. 2011).

We found no effect of dance on the PDQ-39 scores, although four of 12 subjects showed improvement on questions 15, 34, and 39, which were related to cutting up food, difficulty with speech, and feeling unpleasantly hot or cold. We did not perform item-level analyses on the PDQ-39 as the sample size was too small, inviting the strong possibility of Type 1 error, or finding significant...
differences that were an artifact of performing too many analyses without statistical correction. Lack of improvement on overall PDQ-39 is in contrast to the results of some, but not all studies of dance and Parkinson’s (Hackney and Bennett 2014).

The outcomes of this study may have been influenced by the short period of observation and/or small sample size, which affects power. Alternatively, recent large-scale studies suggest that the PDQ-39 is insensitive to relatively short-term changes in PD symptoms or the need for symptomatic therapy (Parashos et al. 2014). Possibly, the PDQ-39 does not include a sufficient number of items that detect the kind of changes that persons in the DiPD® classes reported in the interviews (Tables 4, 5). The interview questions were open ended and asked about participants’ experiences and responses to the class and allowed for expression of a range of observations not covered in the PDQ-39.

Interview responses appear more positive than some of the quantitative results indicate. Responses in both “Better” and “Worse” groups (Tables 4, 5) were consistently positive and remarkably similar in spite of differences between the two groups in scores on the quantitative measures (Table 3). Thus, interview results suggest that the value of the class was not limited to physical functioning. The participants reported benefits related to QOL and well-being that were not reflected in changes on quantitative measures. It appears that some standard instruments (BBS, BDI, PDQ-39) used in this study did not capture the full benefits of dance from the participants’ perspectives.

Results similar to ours in suggesting the benefits of dance beyond physical assessment scores were also reported by the English National Ballet (Houston and McGill 2012). These results support the recommendation of the Office of Behavioral and Social Sciences Research at the National Institutes of Health, which described best practices for using mixed methods designs (inclusion of both quantitative and qualitative data) in the health sciences (Creswell et al. 2011).

Results of the study indicated consistent and high class attendance compared to other forms of exercise (Hackney and Earhart 2009b). The often observed problem of decreasing motivation over time in exercise programs seems not to have occurred here. As reported in the interviews, the supportive emotional and social experience along with physical activity appears to have kept attendance strong.

<table>
<thead>
<tr>
<th>“Worse” group</th>
<th>What did you get out of class?</th>
<th>How has class impacted quality of life?</th>
<th>What brings you back to class each week?</th>
<th>Anything changed in you because of class?</th>
<th>Anything else to tell us?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Participant #2</td>
<td>Enjoyed exercise and friendly people; it “got me out of the house”</td>
<td>“Helps a lot physically and mentally”</td>
<td>Helps me not feel handicapped. “We are all together”</td>
<td>Not feeling sorry for myself because of new friends and exercise</td>
<td>Group is very caring and they ask about each other</td>
</tr>
<tr>
<td>#3</td>
<td>Denial about PD was eradicated; good to be “involved with other PD patients”</td>
<td>No</td>
<td>Routine, familiar faces, commitment</td>
<td>Less discouraged with what s/he can’t do and “more accepting of that”</td>
<td>No</td>
</tr>
<tr>
<td>#5</td>
<td>Contentment; not feeling alone; fun way to “feel better on a daily basis”</td>
<td>Strengthened physically; was “challenged in several ways”</td>
<td>“Determination to feel better was contagious;” enjoyed class and people</td>
<td>Happy and still independent</td>
<td>“Class made me face PD and actually embrace it;” it made a difference in many ways</td>
</tr>
<tr>
<td>#7</td>
<td>Good friends; better communication; better mobility; “made my life a little bit better”</td>
<td>Yes, class kept the mind busy</td>
<td>Very pleasant, fun people, dancing and what we learn</td>
<td>Happier, stronger, more alive, better relationships at home</td>
<td>Very pleasant</td>
</tr>
<tr>
<td>#9</td>
<td>Liked “that sort of exercise twice a week”</td>
<td>General health has improved</td>
<td>Commitment</td>
<td>In class, troubles go away and “you become quite exhilarated!”</td>
<td>Improved health; incredible opportunity to participate in class</td>
</tr>
<tr>
<td>#12</td>
<td>Inspiration; saw a way to improve</td>
<td>Doing exercises leads to a better life</td>
<td>“Seeing the class and exercises;” see people improving, getting better</td>
<td>Less helpless; “doing something to help myself”</td>
<td>“I feel the more I can come, the more I can do. That’s all positive”</td>
</tr>
</tbody>
</table>

Participants were sorted into “Better” and “Worse” groups based on pre-intervention PDQ-39SI scores. These are responses from the “Worse” group.
There are several limitations of this study. The small sample size presents challenges in terms of the risk of Type II errors (i.e., not finding statistically significant positive effects of the dance intervention that did occur). In addition, constraints on scheduling at the dance studio meant that the dance class could only be held for 2 months during the summer. This may have been too short a period of time for persons with PD to experience other measurable improvements in the physical domains that were assessed.

We recommend that a randomized controlled trial of DfPD® be conducted. A larger study might separate participants into tremor predominant vs. postural instability gait disorder forms of PD to determine whether there are differences in responsiveness of motor symptoms to the intervention. It is important to compare the effect of DfPD® classes and fitness classes. Because adherence appears to be very high in DfPD®, investigation of the contributors to this behavior is warranted.

Conclusions

This small study showed that some specific motor measures of PD improved over the short time of the dance classes. Standardized instruments of PDQ39, BDI, and BBS did not show significant changes, whereas responses to the qualitative questions developed by us indicated a variety of positive outcomes to the classes. The low attrition rate and continuing attendance of DfPD® classes demonstrate adherence and high motivation to participate in this activity. The growing interest in DfPD® classes and the current results demonstrate the need to better understand the specific effects of DfPD® with objective, standardized instruments, such as the UPDRS, and also with more attention to qualitative assessment that attempts to capture the individual experience of the effects of dance.

Acknowledgments  The Mark Morris Dance Group: Nancy Umanoff, Eva Nichols, John Heginbotham, David Leventhal, Misty Owens; Accompanists: Bruce Lazarus and Colleen Jones; Neurological evaluators: Drs. Muhammad Javaid and Abishek Gulati; BPG: Ava Jarden; Advisors: Heiner Ellgring and Dan Russell; and most especially, the students who participated in the study class. This study was unfunded.

Conflict of interest  The authors declare that they have no conflict of interest.

References


“WHO ME, AGEIST?”

ASHTON APPLEWHITE
“Who me, ageist?”

How to start a consciousness-raising group

thischairrocks.com
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4 What is consciousness-raising, and what is it for?
6 Suggested ground rules
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11 Towards a radical age movement
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What is ageism?

Ageism is stereotyping and discrimination on the basis of a person’s age. Influenced by social movements that were challenging racism and sexism, Dr. Robert Butler coined the word “ageism” in 1968. It is the last socially sanctioned prejudice.

We experience ageism any time someone assumes that we’re “too old” for something—a task, a haircut, a relationship—instead of finding out who we are and what we’re capable of. Or “too young;” ageism cuts both ways, although in a youth-oriented society olders bear the brunt of it.

Like racism and sexism, discrimination on the basis of age serves a social and economic purpose: to legitimize and sustain inequalities between groups. It’s not about how we look. It’s about how people in power assign meaning to how we look.

Stereotyping—the assumption that all members of a group are the same—underlies ageism (as it does all “isms”). Stereotyping is always a mistake, but especially when it comes to age, because the older we get, the more different from one another we become.

No one is born prejudiced, but attitudes about age—as well as race and gender—start to form in early childhood. Over a lifetime they harden into a set of truths: “just the way it is.” Unless we challenge ageist stereotypes—Old people are incompetent. Wrinkles are ugly. It’s sad to be old—we feel shame and embarrassment instead of taking pride in the accomplishment of aging. That’s internalized ageism.

A key part of ageism is denial: our reluctance, even in midlife, to admit that we are aging. Its hallmark is the irrational insistence that older people are “other,” not us—not even future us. This denial blinds us to ageism in ourselves, and perpetuates it in a thousand ways. When we see people as “other”—other color, other nationality, other religion—their welfare seems less of a human right. That’s one reason five out of six incidents of elder abuse go unreported. Another is internalized ageism: many older people don’t feel they deserve help and are ashamed to ask for it. By blinding us to the benefits of aging and heightening our fears, ageism makes growing older in America far harder than it has to be. It damages our sense of self, segregates us, diminishes our prospects, and actually shortens lives.

Unless we confront the ageism in and around us, we lay the foundation for our own irrelevance and marginalization. The critical starting point is to acknowledge our own prejudices, because change requires awareness. That’s where consciousness-raising comes in.
What is consciousness-raising, and what is it for?

Consciousness-raising (CR) is a tool that uses the power of personal experiences to unpack unconscious prejudices and to call for social change.

Participants tell and compare their stories in order to understand concretely how they are oppressed and who’s doing the oppressing. This shows them that “personal problems”—such as not being able to get a job, being belittled, or feeling sidelined—are actually widely shared political problems. Because ageism is so pervasive and unchallenged, its effects can be difficult to pinpoint. CR groups allow participants to express feelings they may have dismissed as unimportant, and to recognize that feelings of inadequacy are actually a result of being discriminated against. By sharing truths, vulnerabilities, and experiences, participants become more aware of how they feel and what forces shape those feelings.

Consciousness-raising can be used to:

- Explore our own internalized biases about age and aging: the myths and stereotypes that each of us has internalized over a lifetime, often unconsciously. CR provides a safe space for this essential first step.
- Discover how myths and stereotypes about aging, both positive and negative, shape our lives, and what other opportunities and choices are available to us.
- Break down barriers and connect in ways that celebrate our shared humanity and the cycles of life. People often feel competitive with people much younger or older than they are, or isolated from them.
- Get to the root of the social and economic forces behind ageism: who benefits and who pays.
- Acknowledge that we can’t dismantle ageist thinking and behavior on our own, because ending discrimination requires collective action. Part of the problem is thinking, “This is only my problem.”
- Swap shame and denial of aging for acceptance and age pride.
- Take action, using conclusions the group has arrived at as the basis for our theory and strategy.

Confronting ageism isn’t just a matter of personal well-being. It’s a social justice and human rights issue.

For some people, consciousness-raising will only create internal change. This is completely valid. Ideally, the process will radicalize others to participate in whatever actions are necessary to end discrimination on the basis of age. Historically, when prejudice and discrimination go
What is consciousness-raising, and what is it for?

unchallenged, they stop being identified as oppression and become “normal” or “natural.” Consciousness-raising exposes these ways of thinking as social constructs that we can change.

Consciousness-raising is the first step in a process of social change that involves conversation, collaboration, activism, art, advocacy, and eventually legislation. When one group struggles for social equality, it helps other disempowered groups. The civil rights movement did more than work towards equal rights for people of color in the United States. It also spread the idea that discrimination based on anything other than the content of a person’s character is unethical and unacceptable, and that no one should accept second-class citizenship. The women’s movement not only improved women’s lives, it paved the way for more progressive views of the workplace, gender, and family.

Now it’s time to mobilize against discrimination on the basis of age.
Suggested ground rules

1. **Show up.**
   No group will work unless its members take it seriously and commit to attending.

2. **Arrive on time.**

3. **Listen actively.**
   Pay close attention to the person who is speaking—not only to the words they’re using but to the message they’re trying to convey. Defer judgment. Just listen carefully.

4. **No cross-talking.**
   Wait for the person who is speaking to finish what he or she has to say. Don’t interrupt except to ask a specific informational question or to clarify a point. Take notes if you want to remember something you’d like to say when it’s your turn. Everyone will get a chance to speak.

5. **What happens in the room stays in the room.**
   Consciousness raising discussions are confidential.

6. **It is vitally important that each person speaks and that no one dominates the discussion.**
   One way to ensure this is to go around in a circle, which also helps the discussion stay on topic. Another is to supply each member with several poker chips, which get tossed in the middle each time they talk.

7. **Speak personally and specifically from your own experiences.**
   Try not to generalize about others or to talk in abstractions. Use “I” instead of “they,” and “we” instead of “you.”

8. **Don’t challenge someone else’s experience.**
   What another person says is true for him or her. Instead of invalidating a story that seems off base, share your own story. Watch for body language and nonverbal responses, which can be as disrespectful as words.

9. **Don’t be afraid to disagree—respectfully.**
   The goal is not to agree, but to gain a deeper understanding. It’s important to communicate honestly and speak up if we perceive things differently. But assert your opinions
Suggested ground rules

respectfully and refrain from personal attacks. Focus on ideas.

10. Participate to the fullest of your ability.
Progress and community depend on the inclusion of every individual voice. The more you put into the experience, the more you’ll get out of it.

11. Try not to give advice.
The purpose of consciousness-raising is not to help participants solve day-to-day problems, but to help us gain strength through the knowledge that other people share many of our feelings and experiences.

12. Sum up.
After everyone has related their personal experience with the topic, the group works to find common threads and see what conclusions can be drawn. This is when we begin to discover the nature of the social forces that oppress us all.

13. These are suggested guidelines, not inflexible rules.
Feel free to make—and break—your own. It’s very important, however, for members not to cross-talk, even if it feels formal or artificial at first and even if people are interrupting out of enthusiasm. That’s what enables people to go deeply into their experience, and to listen deeply. Try taking two breaths after each person has finished speaking instead of jumping in to fill the void.
A few other pointers

The most effective groups will have members of all ages, sexes, and sexual orientations, and who are ethnically and culturally diverse.

At the first meeting each person can give a little personal background, talk about why they’re here, and say what they hope to get out of the discussion. A good icebreaker in the very beginning is to discuss something everyone has read.

Eight to twelve people is a good size for a group if everyone is to get a chance to speak. Groups usually meet at least once a month, for about three hours. Another option is shorter but more frequent meetings; the group can decide. Skipping meetings or perennial lateness isn’t conductive to intimacy and growth. By the same token, it’s not a good idea to add people after, say, the third or fourth meeting.

Groups usually meet in a different person’s home each time. Food and drink is always a good idea. The group should have privacy, with no partners or housemates around.

On a rotating basis, a volunteer facilitator can keep the group on track and ensure that there will be time for a “summing up” at the end of the meeting, as well as for administrivia (like choosing a discussion topic and location for next meeting).

The group may want to periodically devote an entire meeting to evaluating goals and airing any dissatisfactions. If problems arise, it’s often because the group is careless about using the consciousness raising technique. Issues can often be eliminated simply by paying particular attention to the discussion format, for the next few meetings at least.

Many groups begin with a “check-in” so each person can have a chance to share. A member may ask the group focus on a personal issue, or someone else may suggest it. Try to identify the main emotion involved (e.g., loneliness, anger, dependency) and use this as the topic for the meeting.

Once your group has begun, you’ll find that other friends want to join. Some will want to come as guests, but consciousness-raising really depends on participation. Keep a list of people who express interest. After your group has been meeting for a while, you’ll have enough experience for a few of you to help a new group get started. Attend the first meeting or two, to make sure the new group gets off on the right track. Before you know it, you’ll have several groups in your area, and will begin to feel that you really belong to a movement.

After a while, your group might want to begin study or action projects. For example, during the Women’s Movement of the 1970s, a group in California joined the picket line of women factory workers who were protesting discriminatory hiring practices, another group in Washington, D.C. held hearings about the Pill, and several groups began newspapers and magazines.
Sample discussion-starters

Refer to this list when you need to, use questions you like, and ignore those you don’t. You might spend an entire meeting on a single aspect of a single topic. You might proceed by “going around” to see what’s on people’s minds, or discuss a current event. At the end of the meeting, some groups choose a topic for the next one, so people have time to think about it.

- In your own mind, what age are you? What does that mean to you?
- What makes you see someone else as old or young?
- What does it mean when someone says, “I don’t feel old.”
- Do you think you should tell people your age?
- Does age affect the way you think and feel about your body?
  - Do you think you look younger/older than your peers?
  - How do you feel about trying to look younger?
- Have you personally experienced ageism?
- How is discrimination on the basis of age different from other kinds of discrimination?
- What do you like about being your age?
  - What do you dislike?
- What’s new in your life that you attribute to age?
  - Any changes in attitude, views, interests?
  - Do people treat you differently? How so?
- What, if anything, are you looking forward to in the next decade? How about the decade(s) after that?
- How do you think aging differs for men and for women?
- How do you feel when someone says “You look great for your age!”
- What do you fear about growing older?
- What’s surprising about getting older?
- How do you feel about people offering you a seat on the bus? When and how should people offer assistance?
Sample discussion-starters

- What do you think about relationships with a big age difference?
- Do you think that younger people should have priority for organ transplants?
- How would you feel about using a cane? A walker? A wheelchair?
- Do you think there are certain clothes that older people shouldn’t wear?
- Should older people in physically demanding jobs, like firemen and doctors, have mandatory physical exams? What about older drivers?
- How do you relate to people significantly older or younger than you?
- Do you have friends of all ages or mostly peers? What’s the basis for your cross-generational friendships?
- Has getting older changed the way you feel about sex?
- What do you think of the term “ageless?” How about “anti-aging”?
- Do you see value in living to be very, very old?
- How do you envision the last third of life: decline, continuum, growth?
- How would an age-blind society look and feel different?
  - What would you miss, and why? What would be harder, and easier?
- What do you think of the phrase “age pride?”

Who me, agist?
Towards a radical age movement

We need new social visions that will inspire and support people to grow and participate actively throughout their entire lives. No age-segregation or pitting generation against generation—we want a society that works for us all. We can’t leave it to “experts” to tell us how to age “successfully,” nor to an aging-industrial complex that sees older adults as a dependent group of consumers.

It’s up to us. It’s time for a grassroots nationwide effort that challenges traditional notions of aging and introduces new ideas for building co-creative and interdependent communities. Working together we can:

• Challenge ageism – in ourselves, social practices, policies, and institutions
• Create new language and models that embrace the full life journey;
• Create new paradigms in society so that adults can participate fully consistent with their capabilities and ambitions at all stages of life;
• Celebrate the contributions of older adults toward innovating, changing and repairing the world;
• Create a more compassionate and interdependent society that supports the wellbeing of people of all ages;
• Inspire and help develop cross-generational communities where people of all ages enjoy the gifts and capacities they have to offer;
• Bring dying and death out of the closet.
Anti-ageism resources

Books:

* Agewise: Fighting the New Ageism in America* by Margaret Morganroth Gullette.
  (University of Chicago Press, 2011)
* How to Age* by Anne Karpf (Macmillan, 2014)
* Learning to Be Old: Gender, Culture, and Aging* by Margaret Cruikshank (Rowman & Littlefield, 2009)
* Look Me In the Eye: Old Women, Aging, and Ageism* by Barbara Macdonald with Cynthia Rich. (San Francisco: Spinsters Book Company, 1991)
* The Longevity Revolution* by Robert N. Butler (New York: PublicAffairs, 2008)
* Ageism in America* by the Anti-Ageism Taskforce at the International Longevity Center, 2006
  (pamphlet) http://www.mailman.columbia.edu/sites/default/files/Ageism_in_America.pdf

Websites:

* This Chair Rocks: Pushing Back Against Ageism—Which Affects Everyone.*
  http://thischairrocks.com
* Silver Century Foundation.* http://www.silvercentury.org
* The Radical Age Movement: Leveraging the Power of Age.*
  http://TheRadicalAgeMovement.com
* Radical Age Lab.* http://radicalagelab.com
* Yo, Is This Ageist?* http://yoisthisageist.com
* The Pass It On Network.* http://passitonnetwork.org
* Senior Planet: Aging With Attitude.* http://seniorplanet.org
* Changing Aging.* http://changingaging.org/

Facebook groups:

* This Chair Rocks.* http://facebook.com/ThisChairRocks
* The Radical Age Movement.* http://facebook.com/TheRadicalAgeMovement