

Creativity as a Key to Health in Old Age

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Introduction

- Elderly people typically need to be cared for due to the physical and cognitive declines associated with aging, and are also at risk for certain medical conditions like dementia and chronic illnesses
- Researchers have started to look at creativity as a preventive measure to support people's health as they grow older
- Multiple studies have shown a variety of positive effects for the brain when people take part in creative activities, such as art therapies or culture programs
- These benefits often also extend to helping improve physical health in some studies

What is Creativity

Definition of Creativity (Flood & Phillips, 2007):

- Creativity is the ability to make new, innovative ideas or solutions for problems
- It requires people to think in challenging ways and learn new skills

Most common forms of creativity (Flood & Phillips, 2007):

- Artwork, dance, poetry, and journaling
- Social, group-based creative programs (ex. writing workshops)

Brain Benefits of Creativity

- Challenges involved in creative activities can provide the stimulation that can help maintain and create neural connections in the brain (Cohen, 2006)
- New skills and new neural connections developed through creative activities lead to improved brain plasticity and cognitive reserve (Cohen, 2006)
- Reported benefit of creativity is delayed brain clocks: aging effects on the brain leading to age-based cognitive losses in executive function and memory are slowed (Coronel-Oliveros et al., 2025)

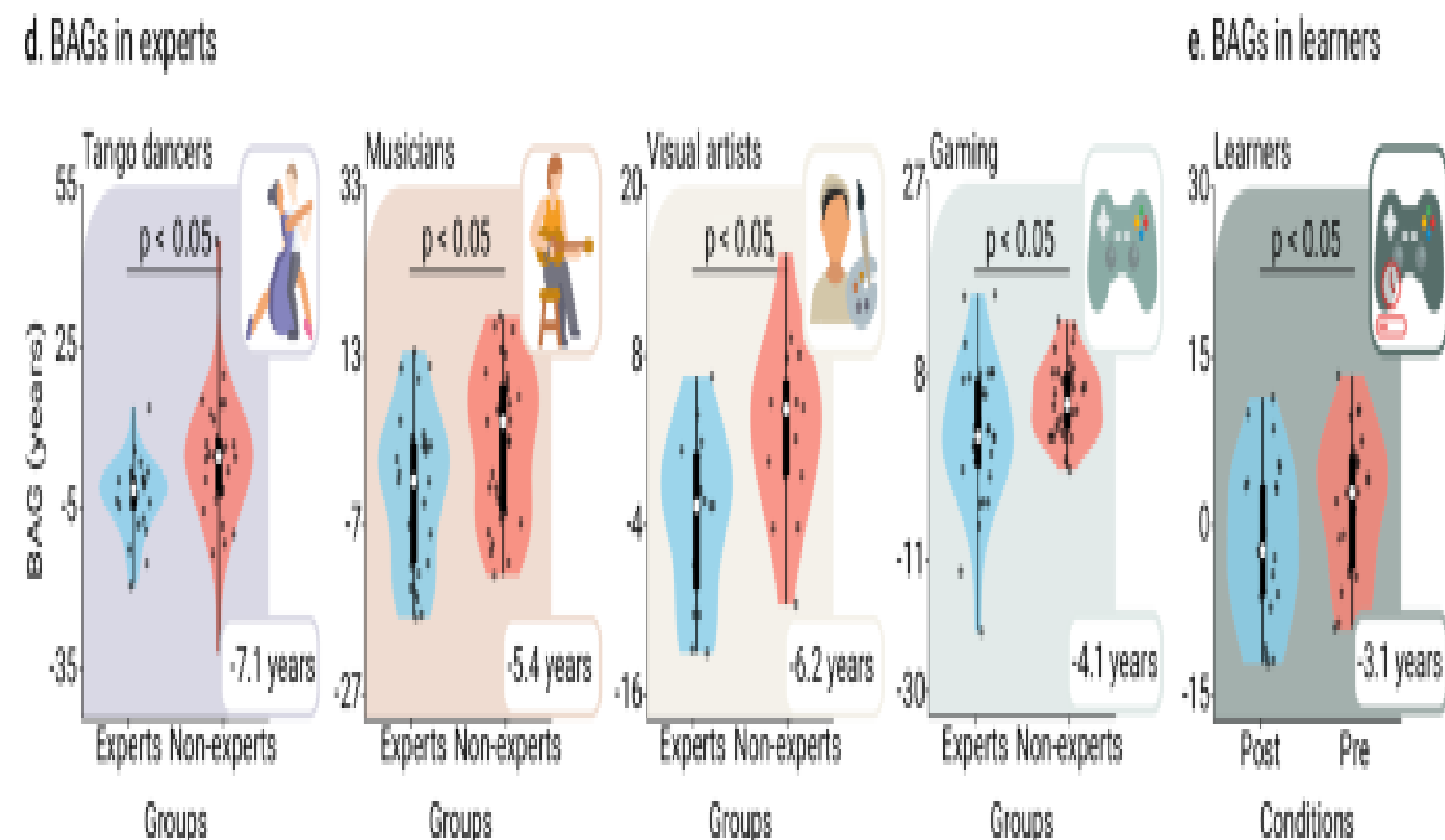
Graph shows mean BAGS for experts and non-experts in different creative fields, and difference in BAGS mean after participants learned a new game requiring creative thinking

BAGS stands for Brain Age Gaps

BAGS is difference between the functional age of brain and chronological age

Positive BAGs means accelerated aging

Negative BAGs means delayed aging.



Physical Benefits of Creativity

Can help relax the nervous system and reduce pain

- Art-based therapy on cancer patients reported patients experiencing more relaxed nervous systems, fewer physiological symptoms, and taking less medication for pain (Stuckey & Nobel, 2010)
- Patients in art intensive care units and hospital patients who received music therapy reported improved heart rate, lower levels of serum cortisol, and less tension (Stuckey & Nobel, 2010)

Shorter hospital visits and better immune system functioning

- Study at Westminster Hospital found that patients who received art intervention program had better medical outcomes, needed less medication, and had less cortisol (Stuckey & Nobel, 2010)
- Creative activities can cause endorphins to be released, which helps the immune system function better (Flood & Phillips, 2007)

Fewer Incidents of falling

- Creativity and Aging Study reported that participants who attended the art-based cultural program had fewer falling incidents, doctor visits, and had better overall health than those who did not attend (Cohen, 2006)

Group	Average # of Doctor Visits Last 12 Months	Average # of Over-Counter Medications	Average # of Falling Incidents in Last 12 Months (Per Person)
Intervention Group-Before Treatment	5.82	2.01	0.40
Intervention Group - After Treatment	6.73	2.61	0.23
Comparison Group - Before	7.44	2.66	0.36
Comparison Group - After	10.84	4.25	0.55

Mental Benefits of Creativity

Decreased anxiety and stress (Stuckey & Nobel, 2010)

- Common reported benefits of studies about music engagement programs were greater relaxation states, improved sense of control, and lower anxiety levels
- Common benefits of studies about visual arts therapy programs were experiencing more positive emotions, a reduction in negative emotions, less distress, and an improved sense of self or identity

Reduced feelings of loneliness and depression

- Creativity and Aging Study reported that participants in art-based cultural programs had improvements in scores on loneliness scale and depression scale (Cohen, 2006)
- Morale Scale scores: Intervention group had better improvement in morale than the non-intervention group (Cohen, 2006)
- Reported decrease in depression and hypochondria scores for participants attending seminars involving creative activities (Krawczyński & Olszewski, 1999)

Increased self-esteem and higher life satisfaction

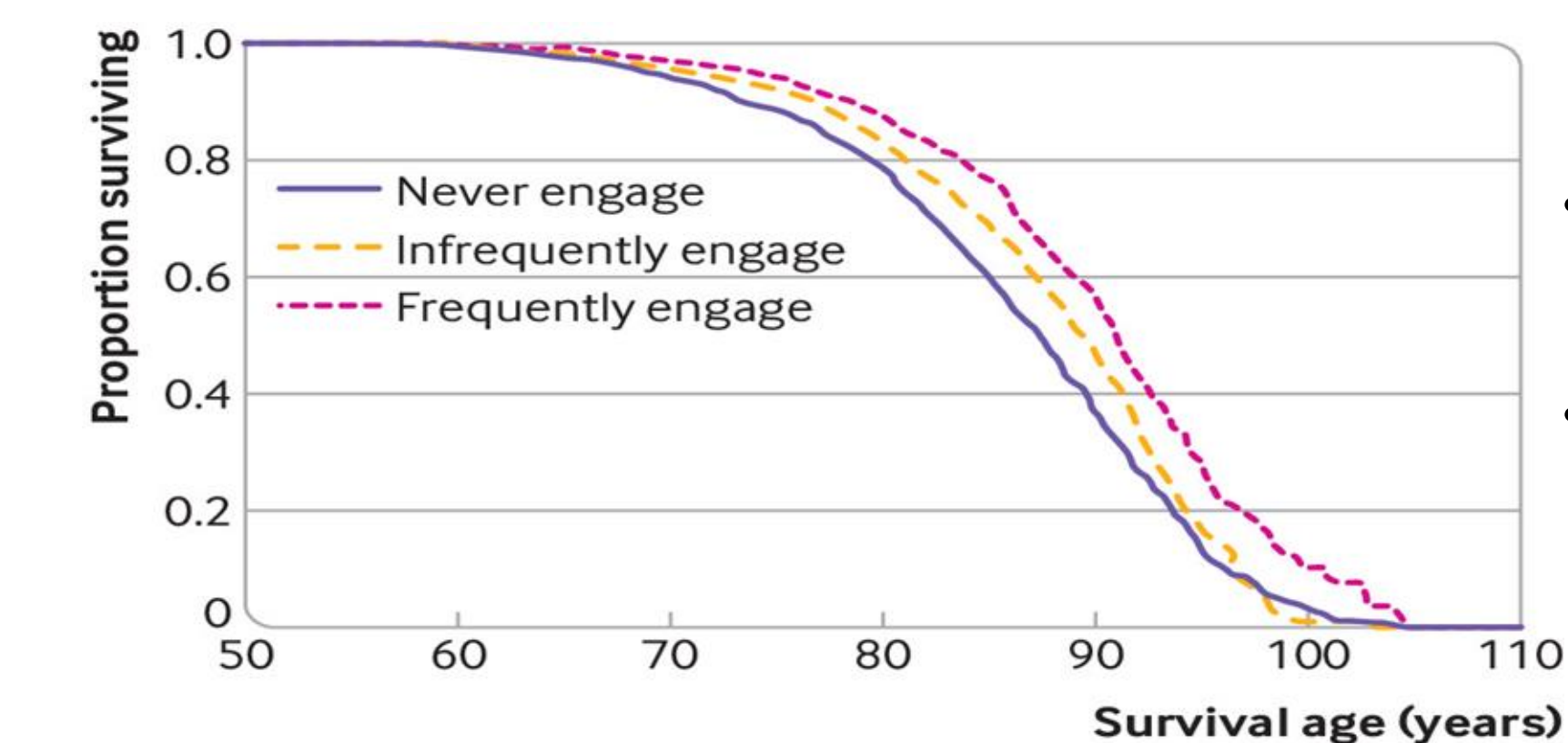
- Subjects in case study reported higher self-esteem after creative-based interventions (Nugent, 1995)
- Data from the UK Household Longitudinal reported significantly higher life-satisfaction, lower mental distress, and better mental functioning for participants with higher attendance to art events (Wang et al., 2020)

Great social connections

- Study about group poetry sessions in a psychiatric inpatient unit reported a sense of accomplishment and of connection between participants (McGary & Prince, 1998)
- Social relationships later in life are linked with lower stress, which can lead to health benefits like better immune system function and lower blood pressure (Cohen, 2006)

Possible Link Between Creativity and Longer Lifespan

- Daisy Fancourt and Andrew Steptoe conducted a study in England (Fancourt & Steptoe, 2019)
- Participants were adults aged 50 or older and adults interviewed in the English Longitudinal Study of Ageing (ELSA)
- Interviewed participants about engagement in art-based events, collected ELSA data, and reviewed mortality records
- Risk of dying by follow-up decreased with higher levels of engagement with art-based events



- Infrequent engagement had risk decreased by 14%
- Frequent engagement had risk decrease by 31%

Associations between receptive arts engagement and 14-year mortality by calculating the percentage of protective association explained by specific confounding factors

Explanatory factors	Adjusted hazard ratio (95% CI)	P	PPAE (%)
Basic model (age)	0.67 (0.63 to 0.71)	<0.001	-
+sex	0.67 (0.63 to 0.72)	<0.001	0
+education, occupational status, and employment status	0.67 (0.63 to 0.72)	<0.001	0
+wealth	0.70 (0.65 to 0.75)	<0.001	9.1
+cancer, lung disease, cardiovascular disease, or other long term condition	0.67 (0.62 to 0.71)	<0.001	0
+mobility and disability	0.71 (0.66 to 0.75)	<0.001	12.1
+depressive symptoms and psychiatric conditions	0.68 (0.64 to 0.72)	<0.001	3.0
+cognition	0.72 (0.67 to 0.76)	<0.001	15.2
+sensory impairment (hearing and eyesight)	0.67 (0.63 to 0.72)	<0.001	0
+sedentary behaviours	0.69 (0.65 to 0.74)	<0.001	6.1
+other health behaviours (drinking and smoking)	0.70 (0.65 to 0.74)	<0.001	9.1
+loneliness, living status, and marital status	0.69 (0.64 to 0.73)	<0.001	6.1
+social, civic, and hobby engagement	0.71 (0.67 to 0.76)	<0.001	12.1
=all	0.80 (0.75 to 0.87)	<0.001	41.9

PPAE=percentage of protective association explained. Analysed using receptive arts engagement as a continuous variable. Each line of the table shows an explanatory factor or set of explanatory factors added to the basic model. The final line shows all of these factors entered simultaneously.

The Take Home Message

Don't wait to start engaging in creative projects:

- Drawing
- Journaling
- Creative writing
- Painting
- Crafts
- Playing musical instruments
- Dance
- Songwriting
- Musical theater

Selected References

- Coronel-Oliveros, C., Migeot, J., Lehue, F., Amoroso, L., Kowalczyk-Grębska, N., Jakubowska, N., Mandke, K. N., Seabra, J. P., Orio, P., Campbell, D., Gonzalez-Gomez, R., Prado, P., Cuadros, J., Enzo Tagliacuzzi, Cruzat, J., Legaz, A., Medel, V., Hernandez, H., Fittipaldi, S., & Altschuler, F. (2025). Creative experiences and brain clocks. *Nature Communications*, 16(1). <https://doi.org/10.1038/s41467-025-64173-9>
- Fancourt, D., & Steptoe, A. (2019). The art of life and death: 14 year follow-up analyses of associations between arts engagement and mortality in the English Longitudinal Study of Ageing. *BMJ*, 367. <https://doi.org/10.1136/bmj.l6377>
- Flood, M., & Phillips, K. D. (2007). Creativity in older adults: A plethora of possibilities. *Issues in Mental Health Nursing*, 28(4), 389-411. <https://doi.org/10.1080/01612840701252956>
- Stuckey, H. L., & Nobel, J. (2010). The Connection between Art, Healing, and Public Health: a Review of Current Literature. *American Journal of Public Health*, 100(2), 254-263. <https://doi.org/10.2105/ajph.2008.156497>
- Wang, S., Mak, H. W., & Fancourt, D. (2020). Arts, mental distress, mental health functioning & life satisfaction: fixed-effects analyses of a nationally-representative panel study. *BMC Public Health*, 20(1).

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