

Does playing a musical instrument lead to healthier cognitive ageing?

By Fern Wesson (Researcher, proofreader)

A recent BBC article reported that playing a musical instrument leads to beneficial effects in brain ageing later in life. ¹
How valid is this claim?

Ageing is associated with **neurodegeneration**, and could lead to **diseases** such as Alzheimer's, Parkinson's, **but...**



"Playing a musical instrument or singing could help keep the brain healthy in older age, UK researchers suggest.... In their report, published in the **International Journal of Geriatric Psychiatry**, they say music should be considered as part of a **lifestyle approach** to maintain the brain." ¹



Aurelia Foster,
BBC health reporter

There is evidence linking **lifestyle factors** to a more **favourable** trajectory as we age, such as employment, educational attainment, and leisure activities. This suggests that individuals who engage with leisure activities more are less likely to develop **neurodegenerative diseases**. Specifically, musical practice is thought to **improve cognitive function** throughout life.

"The relationship between playing musical instruments and cognitive trajectories: Analysis from a UK ageing cohort" ²

Objective

❖ To explore associations between playing musical instruments and cognitive function in a large cohort of older adults.

Methods

- Nested study in **PROTECT-UK**.
- Data was collected on lifetime music exposure using the **Edinburgh Lifetime Musical Experience Questionnaire (ELMEQ)**.
- **Cognitive tests** were carried out using paired associate learning, digit span, and self-ordered search techniques.
- **Executive function** was assessed using Baddeley's Verbal Reasoning.
- Descriptive statistics and regression analysis was used to investigate patterns in the data.

Results

✓ The researchers found that individuals who **currently played an instrument** scored significantly better on the **cognitive tests** than those who did not.

1,107 individuals were included in the analysis



83% were **female**
The **average age** was 67.82 years

The average education was between **degree level** and **post-graduate degree**



89% had **experience** playing an instrument
44% **currently** played an instrument

Our thoughts:

- ✓ While this study had an interesting premise, it doesn't really tell us about the effect playing a musical instrument has on healthy ageing because of its **non-interventional, non-longitudinal** nature. This study only tells us that this cohort of musicians scored well on cognitive function tests.
- ✓ The population was **not representative** of the general population and did not account for socioeconomic status, which is known to influence health outcomes in later life. ³
- ✓ **More research** is needed to confirm whether music practice has any effect on neurodegeneration and healthy ageing, though we believe that continuing leisure activity into older age should always be encouraged.

References

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3. Kivimäki, Mika et al. (2020) Association between socioeconomic status and the development of mental and physical health conditions in adulthood: a multi-cohort study. *The Lancet Public Health*, Volume 5, Issue 3, e140 - e149