Years of education is differentially linked to language and cognitive performance on only a subset of tasks in older adults

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Level of education, as measured by years of education, has often been associated with cognitive vitality in aging.

However, whether years of education also affects language performance in older adults has been relatively unexplored.

Aim: To examine the effects of years of education on cognition and language

Background

Sample: 291 older adults (145m; 146f), aged 55 - 84 years (M = 71.7), with 9 to 17+ years of education (M = 15.0)

Measures: Lexical retrieval, sentence comprehension, executive functions, working memory, general cognition

Analyses: Multiple regressions adjusted for age and gender (analyses included samples from the whole group based on the number of participants who completed each task)

Methods

Years of education played an important role in older adults’ lexical retrieval skills and in their sentence comprehension abilities. However, the effect of education on cognitive performance in aging was restricted to working memory and set-shifting.

Christensen et al. (1997) found an influence of education on language tasks, but not on cognitive tasks, arguing education permits compensation for crystalized but not fluid intelligence.

Our findings suggest the picture is more complex: crystalized and some fluid intelligence tasks are linked to years of education.

These differential effects may reflect the relationship between cognition and language abilities observed in other studies of language performance in aging (e.g., Goral et al., 2011); the relationship between years of education and language might be mediated by the effects of education on cognitive skills such as working memory and set-shifting.

Discussion

References & Acknowledgements

• Christensen et al. (1997), Int. J. of Geriatric Psychiatry; Goral et al. (2011), Experimental aging research

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