

## **Effectiveness of cognitive interventions in healthy ageing. A systematic review and meta-analytic approach.**

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Ageing, even when healthy, is associated with a physiological and unavoidable decline in many cognitive functions. These cognitive changes affect elderly's quality of life, life expectancy and well-being, causing significant public health implications worldwide (Beard et al., 2016). Interventions to prevent age-related cognitive decline, such as cognitive training and cognitive stimulation, have become an essential issue in many countries to enhance cognitive functioning in healthy elderly. However, the heterogeneity of the training used, and the variability of the results obtained make it difficult for neuropsychologists to choose the most effective tools to use in clinical practice.

This systematic review and meta-analysis aimed to outline the different available instruments of cognitive intervention and to quantify their effectiveness for cognitively healthy elderly. Pubmed, Scopus, and Web of Science online databases were searched for eligible studies on cognitive interventions for cognitively healthy older adults (age >60). We screened 297 studies. Interventions were single-, or multi-domain cognitive training or stimulation; the format was individual or in group, in presence or at distance, and the method of administration was technology-based, paper-and-pencil, or music-based. We considered cognitive outcomes, as assessed by standardized neuropsychological tests before and immediately post-intervention compared with an active or passive control group. The presence of a follow-up assessment was investigated, too. If present, neurophysiological markers and quality of life measures were considered.

The results of this study will be presented and discussed.

Beard, J. R., Officer, A., De Carvalho, I. A., Sadana, R., Pot, A. M., Michel, J. P., ... & Chatterji, S. (2016). The World report on ageing and health: a policy framework for healthy ageing. *The lancet*, 387(10033), 2145-2154.