Culicetto, L., Latella, D., Lo Buono, V., Orecchio, F., Murdaca, A. M., Quartarone, A., & Marino, S. (2025). Executive Functions Training Improves Language Abilities in Aphasia Rehabilitation: A Systematic Review. ***Journal of Personalized Medicine*****, *15*(3), 92. https://doi.org/10.3390/jpm15030092**

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Abstract

Background/Objectives: In recent years, the popularity of non-verbal cognitive training for aphasia has increased. Building on evidence that language abilities engage brain areas involved in executive functions (EFs) processing, this review aims to analyze the utility of EFs training alone or combined with traditional rehabilitation approaches to improve language abilities in aphasia. **Methods**: Systematic searches were performed in four databases evaluating studies focusing on the effects of EFs training in language rehabilitation, yielding 185 studies. After reading the full text of the selected studies and applying predefined inclusion criteria, nine studies were included based on pertinence and relevance to the topic. This systematic review has been registered in the Prospective Register of Systematic Reviews (PROSPERO 2024) with the number CRD42024519087. **Results**: The results of the analyzed studies indicate that various EFs training methods, such as computer-assisted executive control training, Cognitive Flexibility in Aphasia Therapy (CFAT), and the Dr. Neuronowski® program, as well as the combination of transcranial direct current stimulation (tDCS) with EFs training, can lead to improvements in language abilities in people with aphasia. Additionally, EFs training often results in specific effects on treated functions like working memory (near transfer effects) and untreated ones such as spoken sentence comprehension (far transfer effects). **Conclusions**: Despite the heterogeneity of the treatments and the small simple size of the studies analyzed, preliminary results are promising. Future research should further explore the effectiveness and specific contribution of EFs training to improving language functions in aphasia.