Description and explanation of a natural decline of cognitive functions during ontogenetic aging laid in a century of its history grounds for various experiments trying to find wals to slow down or revoke theis process of decline. One of the cognitive domains that has been gaining ever stronger attention among neuroscientists is working memory, which is interconnected with other functions, especially with attention, executive function and fluid intelligence. So far, there has not been reached a consensus regarding a model of working memory. Nevertheless, there are many efforts to describe it, to explain its role within cognitive processes, and to enhance performance. They resulted in various complex and also specialized interventions that are used also in studies focused on older persons.
This study adds to the body of literature on transfer effects of working memory training in young-old persons (age 65-75 years; N=65). It is a randomized controlled study with 2 intervened and 1 passive control groups. The goal was to find about an effect of different numbers of training lessons (10 or 20 in 5 weeks) with a computer-based adaptive visually presented verbal n-back, on latent variables of working memory and fluid intelligence.
The results showed an ability of older people to significantly improve their performance in this training task. We also found near- and far-transfer effect to the both latent variables, and a dose-response effect, that is, a positive relationship between a number of lessons and the gain in fluid intelligence.
This work has important implications in that our data provide further evidence for plasticity of cognitive functions in old age.