

Multimodal everyday training and brain stimulation can help with memory problems

September 19 2016

"By taking the correct steps, it is possible to delay or alleviate the early clinical symptoms of Alzheimer's such as forgetfulness," stresses Peter Dal-Bianco, Alzheimer's expert at MedUni Vienna's Department of Neurology, speaking on the occasion of World Alzheimer's Day on 21 September. A recent study from Finland and Sweden confirms the findings of MedUni Vienna researchers. For example, it was found that "multimodal everyday training" has a beneficial effect upon cognitive abilities such as planning and implementing projects.

In the so-called FINGER study (Finnish Geriatric Intervention Study to Prevent Cognitive Impairment and Disability), 1,260 people aged between 60 and 77, who were already forgetful, were divided into two groups. Over a period of 24 months, one group of 631 people received regular physical exercise to fit in with their everyday lives, comprising walks with simultaneous conversation, balance and memory training on a computer, social activities, a healthy diet and monitoring of their cardiovascular status. Dal-Bianco says, "The result was a significant improvement in [cognitive abilities](#) in terms of processing speed and executive functions in the active group, as compared to the control group." The [control group](#) consisted of 629 people.

This is also corroborated by research results obtained at MedUni Vienna: "For example: inactive people have an 80 percent higher Alzheimer's risk than people who are physically active. Other factors that can accelerate the clinical onset of dementia include being overweight, diabetes mellitus, high blood pressure and smoking," says Dal-Bianco, in

summary.

Currently, there are more than 30 million Alzheimer's sufferers worldwide. According to forecasts, this figure will have reached 63 million by 2030 and around 114 million by 2050. Currently 120,000 people are affected in Austria and by 2050 this is expected to be around 280,000.

Dal-Bianco: "The neurodegenerative tissue changes in the brain happen slowly and start approximately 30 years before the first clinical symptoms of dementia appear. And so, if we take the correct steps at an early stage and we also demonstrate scientifically that they work, many people would be able to delay the clinical onset of the disease so that they die from old age before they have to experience it."

The Department of Neurology at MedUni Vienna currently uses brain stimulation with ultrasound waves (currently as part of an ongoing clinical trial) – as well as drug therapy – to treat early-stage Alzheimer's. These waves are thought to supply energy to the brain tissue. This is thought to promote regeneration of structures in the nervous system: "This should improve brain performance," explains Dal-Bianco.

And another study into the early diagnosis of neurodegenerative diseases, such as Alzheimer's, is currently being conducted at MedUni Vienna, together with Gerhard Garhöfer of the Department of Clinical Pharmacology: This involves increasing the activity of the neurons in the retina of the eye by means of photo stimulation. If these neurons stop being able to transmit adequate signals for the nutrients and blood supply they require, this can be an indication of the development of Alzheimer's. The MedUni Vienna researchers hope that this study will provide another possible method for early detection of Alzheimer's.

Provided by Medical University of Vienna

Citation: Multimodal everyday training and brain stimulation can help with memory problems (2016, September 19) retrieved 6 May 2024 from

<https://medicalxpress.com/news/2016-09-multimodal-everyday-brain-memory-problems.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.