



Non-pharmacological interventions with and without new technologies for the support of patients with cognitive disorders and their caregivers

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Abstract:

Our research is implementing high quality next generation services for the Support of patients with Cognitive Impairment and their caregivers and Education and Training for all stakeholders. Support of patients: Cognitive tasks and cognitive exercises for patients suffering from Mild Cognitive Impairment (MCI) and Alzheimer's Disease (AD) were first prepared with paper and pencil and then through web-based applications. These exercises have been developed in such a way in order to exploit rich interactive multimedia interfaces (including music) based on human computer interaction principles. To this direction we are implementing a web based portal with supportive services such as (a) on-line monitoring of patient's progress by health care professionals, (b) statistical representation of patients' progress. Multimedia enriched cognitive exercises in virtual reality form (i.e. 3D Serious Games) use suitable modalities for such activities through the creation probable of new brain cells and by assisting the brain to find out alternative methods to execute functions, which are controlled by damaged brain regions. Another program the "robot-programming-as-cognitive-training" approach aims to explore the impact that the activity of programming a friendly robot might have on AD and MCI patients' condition. <http://aspad.csd.auth.gr>. REMEDES for Alzheimer - R4Alz battery, HAST test and Altoida are neuropsychological tests with different cognitive targets. Another study aimed at investigating the benefits of combined physical and cognitive training on global cognition while assessing the effect of training dosage and exploring the role of several potential effect modifiers. The results indicate that combined physical and cognitive training improves global cognition in a dose-responsive manner but these benefits may be less pronounced in older adults with mild dementia. The long-lasting impact of combined training on the incidence and trajectory of cognitive disorders in relation to its severity should be assessed in future long-term trials. www.longlastingmemories.eu. Symbiosis is a revolutionary system aiming at providing integrated solutions to a series of problems related with MCI and AD. It is the first integrated AD support system that takes into account patient's response in an adaptive way that fulfills each patient's special needs and provides to caregivers and doctors considerable facilitations, unlocking the potential of innovative supporting role. www.youtube.com/watch?v=BDkLz-TjYE.



Under the umbrella of EU funding we create a platform with 25 serious games (<http://adgaming.ibv.org>). Now we are working together with young students and elderly with cognitive problems in order to prepare games which elderly people will suggest under the umbrella of Erasmus Projects (Bridge). We also try to use body exercise in combination with cognitive exercise in virtual environment (VRADA and VERN programs). Education and training for all stakeholders (i.e. health professionals and informal and formal caregivers) through distance education platforms and e-collaboration services.

Biography:

Magda Tsolaki, MD, PhD, was born in Thessaloniki, Greece in 1954 and has spent most of her time there. She has been a Professor of Neurology since 2010, a Neuropsychiatrist since 1983 and she has worked at the Aristotle University of Thessaloniki since 1982, as well as at the 3rd Department of Neurology of Aristotle University of Thessaloniki since 1988. She has been the main author/co-author of 48 Books, has participated with 506 abstracts in Greek Conferences, with 403 abstracts in English International or European Conferences, is the first author/co-author of 285 papers in Greek journals, and in 376 international journals -310 in PubMed with Impact Factor=1134.845, h-index=52, with more than 10.445 citations-. She has been a reviewer for Conferences and Journals (261) and has organized 27 national conferences on the AD and five international ones. She was one of the three or seven advisory members for 18 doctoral theses-completed, has created the Greek Alzheimer Association in 1995 and the Greek Federation of Alzheimer's Disease in 2007 - she is also the Chair of this Federation. In this capacity, she has given 310 lectures throughout Greece, as well as on TV and radio. She has participated in 40 research programmes and 37 clinical trials. In total, she has received 48 awards.

[Webinar on Dementia | December 10, 2020 | Dubai, UAE](#)

Citation: Magda Tsolaki; Non-pharmacological interventions with and without new technologies for the support of patients with cognitive disorders and their caregivers; Dementia Webinar 2020; December 10, 2020; Dubai, UAE