



ΠΑΝΕΠΙΣΤΗΜΙΟ ΔΥΤΙΚΗΣ ΑΤΤΙΚΗΣ

ΣΧΟΛΗ ΕΠΙΣΤΗΜΩΝ ΥΓΕΙΑΣ ΚΑΙ ΠΡΟΝΟΙΑΣ

ΤΜΗΜΑ ΦΥΣΙΚΟΘΕΡΑΠΕΙΑΣ

PhD Thesis Summary

Zekis Theodoros

**ATHENS
SEPTEMBER 2022**



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Title of PhD Thesis:

The effectiveness of respiratory training on cognitive and physical functioning of patients with neurocognitive disorders

Abstract

INTRODUCTION: Dementia, as a neurocognitive disorder, is an umbrella term used to describe a group of conditions that progressively affect the brain and various cognitive functions.

It is one of the most common neurodegenerative diseases and affects more than 50 million people worldwide, with the number of cases predicted to triple by 2050 (Borges-Machado et al., 2021). It is characterized by a decline in the mental functions and functional capacity of the sufferer, making it the main cause of disability and reduced independence among older people worldwide. It has been established that physical exercise can have a significant effect on improving cognitive ability or even preventing dementia, and neuropsychiatric symptoms, as well as improving activities of daily living, quality of life and independence in the elderly. with cognitive deficits (De Almeida et al., 2020).

Lung function and respiratory diseases have been studied as risk indicators for developing dementia. In a recent systematic review and meta-analysis by Russ et al (2019), a key finding was that people with lower lung function and those with some respiratory disease (regardless of lung function integrity) mainly in middle age, have a relatively increased risk for dementia. The effects were present across a wide range of different countries, different research groups, and both sexes, and even after statistical correction for the interaction of other covariates. Given this, in recent years the hypothesis of the effect of breathing exercises on improving mental ability indicators has begun to be introduced in the literature, both in healthy elderly people and in elderly people with Mild Cognitive Impairment.

OBJECTIVE: The aim of the research is to investigate the effect of an inspiratory muscle strengthening program, combined with usual physical exercise protocols, on the cognitive and functional abilities of individuals with predisposing factors for Mild Cognitive Impairment and dementia, or with these neurocognitive disorders.



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