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## The correlation between 25(OH) D Vitamin D levels and anxiety; A cohort study in elderly people in North Greece

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**Objective:** The aim of this study was to investigate the relation of 25(OH) D levels with anxiety and depression symptoms in elderly individuals. Depression and anxiety are common in elderly individuals. Vitamin D insufficiency/deficiency is common in the elderly. However, a limited number of studies has analysed the association between vitamin D levels and anxiety/ depression prevalence in elderly population.

**Methods:** Data were collected from 130 elderly individuals (N=130, 60-98 years) attending the K.A.P.I of East Prefecture of Thessaloniki, from October 2015 to November 2017. Blood samples were collected during the winter periods and vitamin D levels were measured. The psychological state of the participants was assessed with the STAI, which comprises two scales: S-Anxiety and T-Anxiety. Furthermore, symptoms of depression were assessed with the CES-D scale, a useful tool for detection of this clinical entity independent of the psychological wellness. The indicated value index for the presence of depression in Greek population is greater than 9.03. The statistical data processing was carried out using the SPSS.

**Results:** Data from 130 individuals were analysed. They were classified as vitamin D sufficient (25(OH) D >30 ng/ml), insufficient (25(OH) D: 21-29 ng/ml), deficient (25(OH) D < 20 ng/ml) and severely deficient (25(OH) D <10 ng/ml). 67.7% of the participants (n=88) were either insufficient or deficient and 5.4% of the participants (n=7) were found to suffer from severe vitamin D deficiency. 80% (n=71 of participants) of the insufficient/deficient cohort were suffering from anxiety or depression while either anxiety or depression symptoms was present in half of the participants that were vitamin D sufficient. All individuals (n=7) that suffered from both anxiety and depression were vitamin D severely deficient.

**Conclusions:** Both anxiety and depression are common in elderly individuals. Vitamin D deficiency or insufficiency may be an additional factor that promotes these conditions

## **Biography**

Despoina Drivakou is a Psychologist, trained in Systemic Approach Psychotherapy. She earned her MSc from the Medical School of Thessaloniki in Epidemiology and Public Health and continued her studies as a PhD candidate in Psychology of Health. She is a Psychologist and has private practice in Thessaloniki, working with couples, families and individuals. She is an academic staff member of QMU- Department in Thessaloniki and is Instructor of "Health and Welfare" and "Public Health Practices". She treats people with dementia in a care home for elderly people. The areas of trauma, PTSD, ADHD and quality of life for elderly people are her scientific and clinical interests. She is a member of the Systemic Company of Northern Greece and ELPSE. She is the Founder and President of the NGO EP7A that aims to provide awareness on health education to people.

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