

MEETING ABSTRACT

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# Association between depression and body mass index in patients with chronic obstructive pulmonary disease

Athanasios Tselebis<sup>1\*</sup>, Dionisios Bratis<sup>1</sup>, Maria Harikiopoulou<sup>2</sup>, Elpida Theodorakopoulou<sup>2</sup>, Georgios Moussas<sup>1</sup>, Athanasios Karkanias<sup>1</sup>, Elias Kainis<sup>2</sup>, Epaminondas Kosmas<sup>2</sup>, Nikolaos Tzanakis<sup>3</sup>, Nikolaos Siafakas<sup>3</sup>

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## Background

It is well known that Chronic Obstructive Pulmonary Disease (COPD) is a disease with psychological comorbidities [1,2]. Especially depression (which its prevalence ranging between 10% and 42%) affects physical functioning in these patients and may lead to increased risk of COPD exacerbations and rehospitalization [3]. Depression characterized, among other symptoms, by a significant weight loss or weight gain or decrease or increase in appetite nearly every day. Aim of the study is to investigate the association between depression and Body Mass Index (BMI) in patients with COPD.

## Materials and methods

The study was performed in one of the largest hospitals in Greece and included 119 (95 male and 24 female) outpatient with COPD. The patients responded to the Beck Depression Inventory (BDI). BMI, age and education level were also recorded.

## Results

Mean age and mean education level were 65.21 ( $\pm$  7.99) and 11.05 ( $\pm$  4.22), respectively, with no statistical difference as to genders (T-test  $p > 0.05$ ). Mean BDI score was 11.69 ( $\pm$  7.54), while a percentage of 52% presented with moderate to severe depression. The percentage of women with positive BDI score was increased compared with that of men ( $\chi^2 p = 0.05$ ). Mean BMI was 27.22 ( $\pm$  4.71), while a percentage of 59.6% presented BMI  $> 25$  (with no differences between genders). Regarding the total sample, no

correlation was observed between age, education level, BMI and BDI score (Pearson correlation  $p > 0.05$ ). However, separating the subjects as to gender, we observed a positive correlation between BMI and BDI score in women (spearman correlation  $p < 0.05$ ).

## Conclusions

This study confirms the high prevalence of depression in COPD patients, and especially in women. Additionally, the association between depression and BMI seems to be clearer in female gender. However, further studies are required in order to clarify these findings.

## Author details

<sup>1</sup>Psychiatric Department, Sotiria General Hospital of Chest Diseases, Athens, Greece. <sup>2</sup>Pulmonary Rehabilitation Centre, Sotiria General Hospital of Chest Diseases, Athens, Greece. <sup>3</sup>Department of Thoracic Medicine, University of Crete Medical School, Heraklion, Greece.

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<sup>1</sup>Psychiatric Department, Sotiria General Hospital of Chest Diseases, Athens, Greece