



# The Effect of Pulmonary Rehabilitation on Psychological Status and Quality of Life

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## **Abstract:**

**Introduction:** Patients with chronic respiratory diseases are suffering from dyspnea and decreased daily activity, which affects quality of life and psychological status. One of the objectives of pulmonary rehabilitation programs is to improve their psychological status.

**Aim:** to evaluate the benefits of pulmonary rehabilitation (PR) on level of anxiety and depression among patients included in a pulmonary rehabilitation program.

**Method:** A prospective study on COPD (Chronic obstructive lung disease) patients participating in a 7 weeks outpatient rehabilitation program that includes: generally physical training, chest physiotherapy, psychological counselling (one session / week). The following parameters were evaluated before and after RR: dyspnea (BORG scale), quality of life (St. George's Respiratory Questionnaire: SGRQ), psychological status (Hospital Anxiety and Depression Scale).

**Results:** 47 COPD patients, mean age 61.83±12.3 years, 37 males. Before the rehabilitation, we found in 38/47 patients anxiety and depression (HADS score>8 points), of which 35 had moderate and severe scores. After the RR program: mean dyspnoea score decreased from 2.6 to 1.8 points (BORG scale, p = 0.000, test Wilcoxon), improved quality of life (SGRQ score decreased from 52.3 to 47.1 points, p = 0.000, t student). Mean HADS value significantly decreased from 14.4 to 12.3 points, p=0.000, t student). The benefits on psychological status were higher in the age group > 65 years, severe functional COPD stages, women.

**Conclusions:** Our pulmonary rehabilitation program had statistically significant positive effects on dyspnea, quality of life and anxiety and depression in COPD patients. Psychological counselling added to muscular training increase the success rate of rehabilitation and the adherence to the program.

## **Keywords:**

Pulmonary Rehabilitation, Quality of Life, Chronic Obstructive Lung Disease, Dyspnea, Depression, Anxiety