

Clinical Research Results Abstract

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Association between smoking status and anxio-depressive symptoms in a pulmonary primary care sample of patients with COPD in Germany (RESPIRO Study)

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Aim: To assess associations between anxio-depressive symptoms and tobacco use in a pulmonary primary care sample of patients with COPD in Germany.

Method: Between 10/2018 and 12/2019, patients with clinically diagnosed COPD (ICD-10 J44 and Tiffeneau index <0.7) were recruited from 21 pulmonary practices in North Rhine-Westphalia (German federal state). Patients completed a questionnaire on their smoking, health-related quality of life (COPD Assessment Test, CAT), sociodemographic data, and symptoms of anxiety and depression (Patient Health Questionnaire, PHQ-4, subscale range: 0-6 = none to severe symptoms). We analysed associations between smoking status (current smoker, recent ex-smoker (≤ 1 year), long-term ex-smoker (>1 year), versus never smoker), level of tobacco dependence (only in current smokers, measured with the Heaviness of Smoking Index, HSI), and prevalent symptoms of anxiety and depression (cut-off ≥ 3 , respectively) using multivariable logistic regression, adjusted for potential confounders including CAT score, and most recent spirometry results (FEV1% predicted).

Results: 1,172 (88.7%) patients (mean age 66.2 ± 9 years, 31.3% current smokers, 5.5% never smokers) were eligible for data analyses. 22.1% (95%CI=19.7-24.6%) reported symptoms of anxiety, and 24.9% (95%CI=22.3-27.4%) symptoms of depression, with highest prevalence rates observed in recent ex-smokers, and lowest in long-term ex-smokers. The presence of these symptoms was not significantly associated with smoking status in the fully adjusted model ($p > 0.05$). In current smokers, higher levels of dependence were associated with symptoms of anxiety and depression (odds ratios = 1.29 and 1.31 per point increase on the HSI, respectively; both $p < 0.05$). In all analyses, strongest associations with psychological symptoms were found for the CAT.

Conclusion: About every fourth COPD patient in German pulmonary primary care reports anxio-depressive symptoms. In current COPD smokers, these symptoms are strongly associated with tobacco dependence. This relationship should be taken into account when treating tobacco addiction in patients with COPD, because psychological burden may further impede life-saving tobacco abstinence.

Declaration of Interest:

The authors have no conflict of interest to declare. The study was funded by the Research Commission of the Medical Faculty at the Heinrich-Heine-University Düsseldorf, Germany. Trial registration: DRKS00015450 (German Clinical Trials Register)

References and Clinical Trial Registry Information:

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