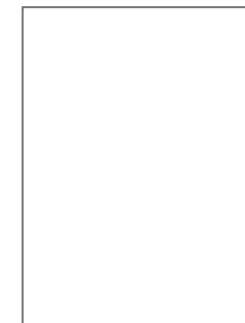


Conference Abstract  Free

Comparing Ecological Momentary Assessment and questionnaires for rating symptoms in patients with COPD

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Abstract

Background: COPD is associated with respiratory and non-respiratory symptoms like fatigue and anxiety, which negatively impact quality of life. Traditional tools rely on retrospective reporting, introducing recall bias and missing symptom variability. Ecological Momentary Assessment (EMA) addresses these limitations by capturing real-time symptom data in natural environments.

Objective: This study compares EMA symptom ratings with questionnaire scores in patients with COPD.

Methods: FANTASTIGUE study participants rated tiredness, dyspnea, anxiety, and energy on a 7-point Likert scale via 8 daily EMA questionnaires for 5 days. Tiredness was also assessed using the Checklist Individual Strength – subscale subjective Fatigue (CIS-Fatigue) and the Symptom Checklist Visual Analogue Scale (SCV). Dyspnea was measured using the modified Medical Research Council (mMRC) Dyspnea Scale, the Physical Activity Rating Scale - Dyspnea Questionnaire (PARS-D), and SCV. Anxiety was assessed using the Hospital Anxiety and Depression Scale (HADS) and SCV, while energy was measured using the COPD Assessment test (CAT). Spearman correlations and multilevel models analyzed associations between methods.

Results: Among 54 patients (67±7 years, FEV₁% 53±20, 63% men), the EMA response rate was 76.1%. EMA scores correlated moderately to strongly with corresponding questionnaire scores ($r_s = 0.49 - 0.78$, all $p \leq 0.05$). Higher EMA scores corresponded with higher questionnaire scores (all $p \leq 0.05$).

Conclusion: EMA is a valid and complementary tool for assessing symptoms in patients with COPD. By capturing real-time variability, it enhances understanding of symptom burden and supports personalized management.

Footnotes

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