

# Health-related quality of life in outpatient women with COPD in daily practice: The *MUVICE* Spanish Study<sup> $\Rightarrow$ </sup>

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#### **KEYWORDS** Summary Cross-sectional studies; Aims: A cross-sectional multicenter study was designed to assess health-related quality of life Pulmonary disease; (HRQL) in women with chronic obstructive pulmonary disease (COPD) who were attended in the outpatient setting in actual conditions of the daily practice. Chronic obstructive; Quality of life; Methods: A total of 1786 women with COPD (mean age of 66.5 years) and 1661 pairs of men and Women women matched by age and COPD severity participated in a cross-sectional study. HRQL was measured with the Short Form 12 Health Survey Questionnaire (SF-12). *Results:* The mean PCS-12 and MCS-12 scores were $36.5 \pm 10.3$ and $44.1 \pm 11.8$ , respectively. General health and physical functioning domains were those with the lowest scores, whereas role emotional and social functioning were those with the highest scores. The percentage of women with low HROL increased according to age, whereas the percentage of women with high or normal HRQL decreased significantly. In relation to COPD severity, more women rated HRQL as low in the physical component than in the mental component. HRQL correlated significantly with FEV<sub>1</sub> in both PCS-12 and MCS-12 scales. As expected, an inverse significant correlation between HRQL and degree of dyspnea in the PCS-12 and the MCS-12 scales was observed. Women had also a significantly worse HRQL than men in all physical and mental domains. Conclusions: In outpatient women with COPD, HRQL was impaired especially the physical component of the SF-12. For the same age and severity of COPD, women showed significantly lower scores in all physical and mental domains of the SF-12 than men. © 2009 Elsevier Ltd. All rights reserved.

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#### Introduction

Chronic obstructive pulmonary disease (COPD) is a major cause of chronic morbidity and mortality and represents a substantial economic and social burden throughout the world.<sup>1,2</sup> Smoking is the most common cause of COPD. From a historical perspective, COPD has been considered to occur more frequently in men than in women, which has been largely attributed to the differences in smoking rates.<sup>3,4</sup> In recent years, however, COPD has become an increasing problem among women. In the United States, the absolute numbers of COPD cases, hospitalizations, and deaths among women have surpassed the number of men,<sup>5</sup> and similar trends have been observed in other Western countries.<sup>6–8</sup> This has occurred despite evidence of gender bias in the diagnosis of COPD.<sup>9,10</sup>

The increasing prevalence of COPD among women is thought to be related to the secular trends in smoking habits,<sup>11</sup> although some authors have suggested that women may be more susceptible to the damaging effects of tobacco than men.<sup>12–14</sup> The concept of differential susceptibility remains controversial,<sup>15</sup> but it is becoming clear that there are important differences between men and women in the development, progression, and outcomes of COPD.<sup>16–19</sup> Moreover, the physiologic changes of COPD affect women and men differently in terms of symptoms and quality of life. Women with COPD also demonstrate higher levels of anxiety and depression than their male counterparts.<sup>20,21</sup>

Health-related quality of life (HRQL) has received an increasing interest over the past decade as an important measurable outcome in patients with COPD. An impaired health status is an important determinant to predict mortality,<sup>22</sup> exacerbations and hospital admissions,<sup>23</sup> and response to different treatment options.<sup>24</sup> Previous studies using both generic and disease-specific instruments for measuring HRQL in COPD patients<sup>25</sup> have shown relationships between HRQL and disease severity, respiratory symptoms, gender, comorbidity, body weight, upper airway symptoms and psychological status.<sup>26-31</sup> In a recent study carried out in Spain, determinants of HRQL in patients with COPD who were followed in primary care included sex, forced expiratory volume in 1 s (FEV<sub>1</sub>), use of oxygen therapy, and number of visits to emergency rooms and hospital admissions.<sup>32</sup> However, there are only a few studies on HRQL in female populations with COPD.<sup>18</sup> In a case series of 53 FEV<sub>1</sub>-matched men and women with COPD, de Torres et al.<sup>17</sup> found that women had worse scores in the Saint George's Respiratory Questionnaire (SGRQ) than men at younger age and earlier stage of the disease.<sup>17</sup> In a separate series of 146 FEV<sub>1</sub>-matched men and women with COPD, the same authors, reported that, compared with men, women also had worse scores in all domains of the SGRQ. Thus for a similar degree of physiological impairment, women experienced more severe dyspnea and worse health status.<sup>33</sup> Furthermore, the factors that determine HRQL for men and women with COPD may differ by gender.

To further contribute to the characterization of HRQL in female patients with COPD, a multicenter cross-sectional study was designed, the primary objectives of which were to assess HRQL in a large sample of women with COPD who were attended in the outpatient setting in actual conditions of the daily practice, and to examine differences in HRQL between men and women matched by age and severity of COPD.

### Materials and methods

#### Patient population

We conducted a 2-month cross-sectional survey of the first five consecutive patients with COPD who were visited by general practitioners in primary care centers and by pneumologists in the outpatient clinics of the Services of Pneumology of acute-care hospitals from all over the country in Spain. A sample of 2300 general practitioners and 200 pneumologists were recruited using a stratified random sample drawn from the list of registered physicians in all autonomous communities.

Patients of both the sexes, aged 40 years or older, with previous diagnosis of COPD (confirmed by history and а spirometry) were eligible provided the reason of consultation was related to his/her pulmonary condition. The diagnosis of the disease was performed according to the criteria of the Spanish Society of Pneumology and Chest Surgery (SEPAR) based on the demonstration, through a forced spirometry, of an FEV<sub>1</sub> below 80% of the reference value and an FEV<sub>1</sub>/forced vital capacity (FVC) ratio below 0.7 after the bronchodilation test. The severity of COPD was rated at three levels according to the FEV<sub>1</sub> value: mild (FEV<sub>1</sub> 60-80% of the reference value), moderate (FEV<sub>1</sub> 40-59% of the reference value) and severe (FEV<sub>1</sub> < 40% of the reference value) following SEPAR criteria,<sup>34</sup> which are based on the guidelines of the British Thoracic Society.<sup>35</sup> Spirometric measurements at the time of the study were not performed. Patients with an acute worsening of their COPD in the previous month were excluded as were those suffering from any physical and/or psychiatric disease precluding to complete the HRQL questionnaire. Patients with more than 80% of missing data for the study variables in their medical records were also excluded.

For the purpose of the present study, the *MUVICE* Study (Spanish acronym of *Women Living with Chronic Obstructive Pulmonary Disease*), the cohort of women was selected, as well as an equal number of men with COPD matched by age and severity of COPD measured by FEV<sub>1</sub>. The main objectives of the study were to assess HRQL in the *MUVICE* cohort and to determine differences in HRQL between men and women matched by age and severity of COPD as measured by the FEV<sub>1</sub>. Secondary objectives included to assess the correlation between HRQL and FEV<sub>1</sub> and dyspnea in women, to gather information on the treatment of COPD in women, and to assess gender-related differences in health resources utilization.

The study protocol was approved by the Ethics Committee of hospital Gregorio Marañón, Madrid (Spain), and written informed consent was obtained from all the participants.

#### Procedures and data collection

Interviews were carried out by the participating physician in the course of the patient's consultation in routine daily Download English Version:

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