The Health Related Quality of Life by SF-6D and Respiratory Symptom Presentation in Primary Care Patients with a History of Smoking

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Introduction
People with a history of smoking were associated with reduced health related quality of life (HRQoL), airflow obstruction in spirometry and increased respiratory symptoms.

Objectives
To find out the HRQoL of general outpatient clinic (GOPC) patients with a history of smoking and its association with the spirometry findings and the presentation of respiratory symptoms.

Methodology
731 people aged ≥ 30 with a history of smoking (ever smoked ≥ 100 cigarettes) from 5 general outpatient clinics completed cross-sectional survey using the Breathlessness, Cough, and Sputum Scale (BCSS scale, score 0= no symptoms to 12 = most severe symptoms), office spirometry and Short-Form 6 Dimensions (SF-6D) (score ranges 0=vegetation status to 1 = prefect health).

Result
Most of the subjects were men (92.5%) in an older age group (mean age 62.2). The ratio of current smokers to past smokers was 0.93. 153 (21.1%) of them were light smokers (< 10 cigarettes/day), 256 (35.3%) of them were moderate smokers (10-19 cigarettes/day) while 317 (43.4%) were heavy smokers (≥20 cigarettes/day). More than half of them (54.2%) reported mild respiratory symptoms (mean BCSS score 0.95, S.D. 1.12). The most common symptoms was sputum (45.1%) followed by cough (34.2%) and breathlessness (6.0%). The SF-6D overall score was 0.850 ± 0.106 (score ranges 0=vegetation status to 1 = prefect health). The subjects reported
significantly lower SF-6D score when they have breathlessness (0.752 ± 0.138; p <=0.001); cough (0.836±0.107; p = 0.007); sputum (0.838 ± 0.115; p = 0.004). For the current smokers (N=353), there is no statistically significant difference of the SF-6D score (p=0.700) among light smokers (0.851±0.106), moderate smokers (0.844±0.109) and heavy smokers (0.855±0.107). For the past smokers, there is also no statistically significant difference of the SF-6D score (p=0.360) among past light smokers (0.867±0.098), moderate smokers (0.854±0.099) and heavy smokers (0.845±0.109). In the linear regression model of the factors associated with SF-6D value, the BCSS score (B = -0.018, 95% C.I. -0.024 to -0.011, p < 0.001) were negatively associated with SF-6D values, while men had higher score in SF-6D when compared with women (B = 0.034, 95% C.I. 0.004 to 0.064, p = 0.025). The presence of airflow limitation in spirometry, body mass index, number of comorbidity, age, educational level, occupation, were not associated with the SF-6D values.

Conclusions: Primary care patients with a history of smoking commonly have mild respiratory symptoms, which associated with reduced HRQoL.