Use of an online survey to detect reasons for low physical activity in COPD patients

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**Purpose** Chronic Obstructive Pulmonary Disease (COPD) is a disabling, airway disease with variable extrapulmonary effects that may contribute to disease severity in individual patients\(^1\). Patients with COPD demonstrate reduced levels of spontaneous daily physical activity compared with healthy controls\(^2\). This results in a higher risk for hospital admission and shorter survival\(^3\). It is not yet clear what the reasons for this lack of activities are.

**Method** We developed an online survey for COPD patients to investigate which reasons patients themselves list for being less active. In addition, this survey provides information on whether the internet proves to be a usable platform to administer surveys in COPD patients. We used the website www.surveymonkey.com to design the survey and store and analyze the data. The link to the survey was posted on the patient forum of the Dutch Asthma Foundation and on relevant COPD group sites of hyves, a Dutch friend based internet site such as facebook. The questionnaire was online from October 23rd 2009 until January 12th 2010.

**Results & Discussion.** In total 71 COPD patients started the survey and 37 answered all the questions. The questionnaire was mostly filled-in by women (about 84%) and average age was around 60. GOLD stage was distributed quite equally over the participants. So, it seems an online survey is mainly usable in female COPD patients. A slightly larger group said that they perform less physical activity since diagnosed with COPD. About 40% admitted to never or not always following the exercise prescriptions they were given by health care professionals. Factors mentioned that stimulate an increase in physical activity are: good weather conditions, walking the dog, seeking to relax or improve physical condition, noticing improvement and social contact. Factors that cause a decrease in physical activity are: shortness of breath, anxiety, bad weather conditions/high humidity, tiredness and feeling depressed. An earlier study showed that indoor air quality is also an influencing factor on physical activities\(^4\). Knowing which factors discourage, or stimulate, patients to be physically active could be used as predictors for physical activity. The results of this study will be used as input for the development of an intervention to monitor and maintain the daily physical activity of COPD patients.

**References**

**Keywords:** COPD, physical activity, online survey

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