

## Editorial

# Are We Missing Anxiety in People with Chronic Obstructive Pulmonary Disease (COPD)?

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## Introduction

Anxiety is a common emotion experienced by us all. Anxiety can be beneficial and help us identify danger and respond appropriately with 'flight' or 'fight' reactions. When we perceive danger, the automatic fear response occurs faster than conscious thought. Surges of adrenaline are released which subside quickly once the perceived or actual threat has passed [1]. Anxiety is one of the most common mental health problems in the developed economies such as the United Kingdom where it is both prevalent and increasing [1]. The persistence of anxiety can leave apprehension, a chronic sense of worry, tension or dread and can be debilitating [1]. Anxiety can cause real emotional distress which can impact on physical, social and psychological well-being.

There is a growing recognition that people with long term physical health problems have an increased risk of developing symptoms of anxiety. Many illnesses require an acceptance of the primary diagnosis, its prognosis, possible complications and adjustment in lifestyle. Co-morbid anxiety may have direct impacts on the primary disease. Examples of anxiety impacting on physical illnesses include avoidance of activity to reduce symptoms such as breathlessness, inappropriate use of medication and persistence of smoking (as a coping strategy for anxiety management). This can result in further deterioration of the lung and heart disease in those with smoking related cardiac or respiratory disease.

Chronic Obstructive Pulmonary Disease (COPD) is a smoking related lung disease. COPD is an umbrella term used to collectively describe chronic lung diseases such as smoking related 'chronic bronchitis' and 'emphysema' that cause limitation in lung airflow [2]. Symptoms include breathlessness, cough and intermittent acute worsening of symptoms- so called acute exacerbations of COPD. Exacerbations are common and unpredictable. Infections are frequent and result in progressive deterioration of lung function and physical functioning. Stable COPD is therefore frequently associated with disruption to normal social and employment functioning and

with further unpredictable events that may lead to hospitalisation. Therapies for COPD include a major focus on preventing disease progression (through smoking cessation), limiting symptoms and/or reducing exacerbation frequency through inhaled and other pharmacotherapies and physical training to improve breathlessness and stamina.

Anxiety causes a number of physical responses such as increased respiratory rate and heart rate. In individuals who have normal lung function these symptoms can be alarming. However, for people who have a respiratory disease such as COPD, the fear anxiety causes can be very distressing and debilitating. People commonly report thinking that they cannot breathe and experience catastrophic thoughts such as they are going to die. Patients become anxious about becoming breathless and avoid exertion which may trigger unpleasant symptoms occurring. This leads to physical de-conditioning thereby compounding exertional breathlessness, reducing confidence, which collectively exacerbates the panic cycle [3]. A vicious cycle develops and panic attacks are common [4,5]. Panic disorder is up to ten times more prevalent in patients with COPD than in the general population [5].

It is entirely plausible that some COPD hospitalisations are primarily related to anxiety or panic attacks. Increased reliance on hospitals as a surrogate for support can create a further vicious cycle of lack of confidence and loss of control. Furthermore inappropriate escalation of medical therapies aimed at preventing infective exacerbations of COPD will likely undermine patient confidence as these have very limited scope in preventing panic attack associated admissions.

Patients with anxiety and depression often suffer from low self-confidence or self-efficacy, which may lead to worse disease related coping [6] and poor self-care behaviours, such as unwillingness to engage in pulmonary rehabilitation, decreased physical activity, failure to quit smoking, poor eating habits, and poor medication adherence [7-9]. Survival is also decreased [10] (Table 1).

Symptoms of anxiety and depression are two of the most common co-morbidities in people with chronic obstructive pulmonary disease [11]. Unfortunately, relatively little focus has been placed on managing this COPD comorbidity which leads to significantly poor health outcomes, reduced quality of life and increased healthcare costs significant healthcare costs [12]. It therefore seems appropriate that clinicians caring for patients with COPD screen for psychological distress and manage this co-morbidity appropriately. Unfortunately despite significant healthcare contact occurring in COPD the management of psychological problems is poor despite the effect it has on morbidity and mortality in this patient group [13].

Current UK guidelines for the management of anxiety and depression recommend psychological treatment, pharmacological

**Table 1:** Consequences of anxiety in COPD.

Acute/ Unstable phase	Stable Phase
<ul style="list-style-type: none"> <li>• Panic associated admissions</li> <li>• Hospitalisation costs</li> <li>• Inappropriate escalation of COPD pharmacotherapy</li> <li>• Possible failure to accept hospitalization when needed</li> <li>• Reduced survival</li> </ul>	<ul style="list-style-type: none"> <li>• Poorer quality of life</li> <li>• Continued smoking</li> <li>• Poor medication compliance</li> <li>• May decline vaccinations</li> <li>• Poor inhaler technique</li> <li>• Avoidance of helpful interventions such as exercise, physical activity and pulmonary rehabilitation</li> <li>• Disruption of normal social and employment functioning</li> </ul>

treatment or both in combination [14,15]. Currently Cognitive Behavioural Therapy (CBT) is a popular therapy for persistent anxiety but there are difficulties in accessing enough services to deliver CBT. In addition, patients with COPD are often reluctant to see mental health professionals as they do not see the link between COPD and anxiety.

Prior studies have suggested significant effects of clinical psychologist delivered CBT in reducing panic attacks and associated healthcare costs in those with co-morbid COPD and panic attacks [5]. Less data are available on the treatment of anxiety in COPD although early and smaller trials have suggested benefits. To address our current knowledge gaps in the management of comorbid COPD and anxiety further data are needed.

In a large randomised trial in the North East of England, 1500 patients with COPD were screened for symptoms of anxiety [3]. More than half (60%) of patients screened in a stable phase at secondary care clinics had symptoms of anxiety (based on a Hospital Anxiety and Depression scale (HADS-A) of greater than 7). Patients were offered entry into the COPD cognitive behavioural therapy CBT CARE Study and then randomised after informed consent to either a brief cognitive behavioural therapy intervention undertaken by a respiratory nurse or self-help leaflets. Respiratory nurses are front line staff who work with high volumes of COPD patients and will likely have the skill sets to allow distinction between organic and psychological causes of breathlessness. The Lung Manual Treatment Program has been developed with a clinical psychologist for use in the CBT CARE study. It is based on principles of CBT and self-management [16]. The primary outcome of the trial is the HADS-A score at 3 months although follow up will continue for 12 months and a health economic analysis is also planned. To date 276 patients have been recruited with 223 patients completing follow up to 3 months. The studies initial results will be available early 2015.

## Summary

Anxiety is a common debilitating condition experienced by people with COPD. Early studies suggest a role for psychological therapies. The results of the COPD CBT CARE Study will provide a deeper understanding regarding the management of anxiety in patients with COPD. It is also the first study to our knowledge where CBT interventions are undertaken by respiratory nurses who may be best placed to deal with the physical and psychological problems experienced by COPD patients.

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