Using cognitive behavioural therapy to address the psychological needs of patients with COPD

An outline of two studies investigating the benefits of using CBT to empower patients with chronic obstructive pulmonary disease to manage their condition.

INTRODUCTION
Chronic obstructive pulmonary disease (COPD) is a term commonly used to describe conditions such as chronic bronchitis and emphysema, and the major cause is cigarette smoking.

The true incidence of COPD is unknown. The prevalence is around 10% in the general population worldwide and it is described as “a growing but neglected global epidemic” (Barnes, 2007).

It is estimated that 3.7 million people in the UK have COPD but studies suggest that as few as one in four are diagnosed with the condition. The remaining 2.8 million are unaware they have a disease that is progressive and that, if left untreated, could severely restrict their lives and reduce life expectancy (British Lung Foundation, 2007).

Patients experience exacerbations of their condition as their disease progresses. Unfortunately, exacerbations frequently require hospital management. Long term oxygen therapy, poor quality of life and reduced physical activity are all associated with an increased risk of both admission and readmission to hospital (Bahadori and FitzGerald, 2007).

Smoking cessation is the most important intervention to prevent COPD or slow its progression. The management of this condition has traditionally focused on preventing deterioration and reversing impairment through drug therapy. Other important interventions include airway and secretion management, nutritional advice, exercise and pulmonary rehabilitation.

Pulmonary rehabilitation
Pulmonary rehabilitation is a cost-effective multidisciplinary, evidence-based intervention that includes physical training, disease education and nutritional and psychological intervention. It is designed to reduce symptoms, optimise functional status and reduce healthcare costs and is recommended by NICE (2004a).

Unfortunately, the provision of pulmonary rehabilitation is poor in many areas. In addition, some patients decline to participate for various reasons including lack of transport and psychological reasons such as lack of motivation, lack of confidence or anxiety.

PSYCHOLOGICAL MORBIDITY
The distressing nature of COPD has a significant impact on patients’ psychological wellbeing. They focus on feeling unwell, their ability to perform everyday activities and on the emotional consequences of the condition (British Lung Foundation, 2006).

Physical variables thought to influence functional status include length of illness, age, pulmonary functioning, exercise capacity and breathlessness. Important psychological variables include depression, anxiety and self-esteem.

Anxiety and depression are prevalent in patients with COPD and are associated with lower levels of self-efficacy, impaired health status, poorer treatment outcomes and reduced survival (Ng et al, 2007). The prevalence of depression in patients with COPD is estimated to be 40% (NICE, 2004a).

Psychological morbidity has adverse effects on the outcome of medical illnesses. It has been associated with excessive use of medication (Royal College of Physicians and Royal College of Psychiatrists, 2003) and more frequent and longer hospital admissions (Osman et al, 1997). Patients who are depressed and admitted to hospital with a COPD exacerbation have an increased risk of mortality despite controlling for COPD duration, severity, smoking, length of stay and socioeconomic variables (Ng et al, 2007).

International guidelines for managing COPD (Global Initiative for Chronic Obstructive Lung Disease, 2008; NICE, 2004a) recommend screening for anxiety and depression but do not offer treatment advice.

COGNITIVE BEHAVIOURAL THERAPY
CBT is a psychological treatment that focuses on understanding how experiences are interpreted. It addresses the interaction between thoughts, mood, behaviour and physical sensations, which are intricately linked (Fig 1). NICE (2004a) published guidelines on COPD and also recommended CBT as the first-line treatment for anxiety and depression (NICE, 2004b; 2004c).

Using CBT in practice
There is a national shortage of CBT therapists and as a result this treatment is not widely available, nor is it understood in the context of COPD.

CBT techniques can be used by non-mental health professionals such as nurses if...
appropriate training and supervision is given. Nurses can begin by carrying out a thorough patient assessment including looking for signs of physical and psychological difficulties.

CBT techniques direct practitioners to specifically ask about beliefs and behaviours associated with patients’ physical condition.

**CURRENT RESEARCH ON CBT FOR COPD**

CBT is an evidence-based intervention for treating numerous psychological difficulties, including anxiety and depression. However, there is limited research on the effects of individual CBT based interventions in patients with COPD.

We undertook a case series involving 10 patients with COPD. An experienced respiratory nurse consultant qualified in CBT used the therapy for patients who were anxious or depressed. Anxiety and depression were assessed using the Hospital Anxiety and Depression Scale (Zigmond and Snaith, 1994). Hospital admissions were noted six months before and after CBT.

Techniques used for anxiety included:
- Education about anxiety and COPD;
- Distraction techniques;
- Breathing control;
- Relaxation.

These techniques help break the vicious cycle of anxiety and can reduce patients’ distress.

Techniques for depression included:
- Education about depression and inactivity with COPD;
- Planning and recording activities each day and rating these for achievement or pleasure.

These techniques help patients break the inactivity which can lead to low mood and poor physical condition. Encouraging them to increase activities within their physical capabilities can be extremely helpful in treating depression.

The study found clinical and statistically significant improvements in anxiety and depression scores and a statistically significant reduction in hospital admissions following CBT (Heslop et al, 2009).

Following this we have undertaken a small non-randomised retrospective controlled study of 42 patients: 21 who had CBT were matched with 21 historical controls. The same techniques were used for managing anxiety and depression as the case series.

The results demonstrated that CBT significantly reduced anxiety and depression and hospital admissions. The average number of COPD related admissions in the six months before CBT treatment was 1.48 compared with 0.42 after treatment (a reduction of 72%). The average number of admissions for the matched control group was 0.47. This suggests that treatment with CBT for anxiety and depression may influence hospital admissions. This has not been demonstrated in any previous studies.

**RECOMMENDATIONS**

Further research is needed to identify if CBT based interventions are an appropriate intervention for patients with anxiety and depression associated with COPD. The benefit of respiratory nurses trained in basic CBT techniques supported by supervision needs to be evaluated. This may provide a framework to address the psychological needs of patients with COPD. A large randomised controlled trial is now planned.

**CONCLUSION**

COPD is a progressive terminal illness. In addition to accurate diagnosis and treatment, efforts need to be made to improve patients’ quality of life, functional level and emotional state.

CBT is an evidence-based intervention that may help patients develop alternative ways of managing difficulties and reduce psychological distress. Addressing the psychological needs of patients with physical illness such as COPD should not be regarded as the sole province of mental health professionals. Nurses in physical healthcare settings can provide holistic care, which involves addressing patients’ physical, social and psychological needs. CBT is one approach that offers hope for better management of COPD.

For more information on CBT training, see www.therapy-in-practice.co.uk

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**REFERENCES**


NICE (2004c) Anxiety (Amended) Management of Anxiety (Panic Disorder, with or without Agoraphobia, and Generalised Anxiety Disorder) in Adults in Primary, Secondary and Community Care. London: NICE. www.nice.org.uk/CG22

