Respiratory nurses can create pulmonary rehabilitation care programmes to help improve the quality of life for patients with chronic obstructive pulmonary disease

The role of the nurse in pulmonary rehabilitation

In this article...

- Chronic obstructive pulmonary disease effects on quality of life
- Assessing the severity of symptoms
- Devising a holistic pulmonary rehabilitation programme

Author Emma Vincent is pulmonary rehabilitation and interstitial lung disease nurse specialist, University Hospitals of Leicester Trust; Louise Sewell is senior lecturer in occupational therapy, Coventry University.


Pulmonary rehabilitation can help patients with chronic obstructive pulmonary disease manage their symptoms and improve their quality of life. Care packages can be devised and managed by respiratory nurses.

Pulmonary rehabilitation

There is no cure for COPD but patients can benefit from pulmonary rehabilitation (PR) programmes. Giving them an exercise programme improves their exercise tolerance, quality of life and ability to self-manage their condition (Puhan et al, 2011; Seymour et al, 2010; Lacasse et al, 2006).

Although traditionally provided by physiotherapists, PR can be led by other professionals such as occupational therapists and nurses. Nurses are increasingly undertaking a generic role in PR (Box 1), and can provide additional functions to enhance that role (Box 2).

Despite the proven benefits of PR, there is a lack of understanding about it outside the specialism, and in particular about the relevance of the nursing role. Funding for PR nurses is also limited, so there are few full-time posts and many nurses who provide PR perform other respiratory functions and duties.

One of the most important aspects of the non-specialist nurse’s role in PR is to help patients understand the link between a healthy, more active lifestyle and an increase in their ability to manage on a day-to-day basis. This requires a holistic approach to care that all nurses adopt in their clinical practice.

PR programmes

PR is a holistic package of care that aims to meet a wide range of needs. It is a programme of structured, supervised exercise, education and psychological support that is based on international guidelines from the Global Initiative for Chronic Obstructive Lung Disease (2014) and the British Thoracic Society (Bolton et al, 2013).

Keywords: COPD/Pulmonary rehabilitation/Lung/Nurse specialism

This article has been double-blind peer reviewed
The six-week programme outlined in national guidelines (two sessions a week) is designed to improve the physical and psychological condition of patients with a chronic lung disease and is thought to promote long-term adherence to health-enhancing behaviours (Bolton et al, 2013).

Sessions are divided between supervised exercise and education, and patients are also asked to undertake training at home. The programme consists of 12 sessions of seminars and discussions on relevant topics (Box 3).

PR is an individualised approach based on a thorough patient assessment. Nurses offering it will need good general medical knowledge, as many of these patients have comorbidities such as:

- Cardiovascular problems;
- Cachexia (loss of weight and muscle mass);
- Metabolic disorders such as diabetes (affecting the amount of proteins, carbohydrates and fats absorbed by the body);
- Psychological problems (in particular anxiety and depression).

These comorbidities, along with long-term respiratory conditions, can affect patients’ ability to cope with exercise programmes, so undertaking a holistic assessment is vital.

**Goal-oriented therapy**
Nurses who take on a generic PR role bring with them the unique attributes of their profession. The therapeutic nurse–patient relationship is at the core of all nursing interventions and such relationships are an important part of successful PR.

Rehabilitation is a fundamental nursing concept that has its roots in Florence Nightingale’s theory (1860) of the reparative process. Nightingale believed the nurse’s role was to prevent patient deterioration and described the reparative process of nature’s way to repair or resolve a “poison or decay of the body”.

**The six-week programme outlined in national guidelines (two sessions a week) is designed to improve the physical and psychological condition of patients with a chronic lung disease and is thought to promote long-term adherence to health-enhancing behaviours (Bolton et al, 2013).**

**Emotional functioning and coping skills are thought to be strong predictors of health behaviours, which is particularly important for PR. By understanding how mood, mastery and self-efficacy can alter the outcome of PR, nurses can use their knowledge and empathy to help patients develop coping mechanisms. This can encourage behaviour change and improve wellbeing.**

**Activities of daily living**
Nurses have a core function in assessing activities of daily living and assisting patients to meet their needs. It is important to assess how patients are coping with all activities of living using a standard assessment process.

In PR nurses can make an important contribution to the assessment of patients’ nutritional intake and sleep patterns, which are important components of the PR assessment. During the programme, nurses give dietary advice and, if required, offer help to modify diets.

Being underweight can add to the decline of patients’ general physical condition. Being overweight can make patients more breathless, especially when moving around.

Equally, reasons for altered sleep patterns can be explored. Disturbed sleep may

**Health and happiness**
Often the symptoms of breathlessness and fatigue affect patients’ emotional and psychological wellbeing.

The self-reported Chronic Respiratory Disease Questionnaire (Williams et al, 2001) can be used as part of the PR assessment to measure health status. It offers an objective measure of how patients are affected by their respiratory condition. The Hospital Anxiety and Depression Scale (Zigmond and Snith, 1983) is also commonly used in assessments to determine the levels of anxiety and depression patients may be experiencing.

Alongside these tools, the Pulmonary Rehabilitation Adapted Index of Self-Efficacy (PRAISE) questionnaire (Vincent et al, 2011) can also be used to measure patients’ self-efficacy – their perceived ability to cope with tasks included within the PR programme, for example, exercising at home or in class.

**BOX 1. GENERIC PR ROLE**

<table>
<thead>
<tr>
<th>Key elements of the generic pulmonary rehabilitation role include:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Exercise testing and prescription</td>
</tr>
<tr>
<td>• Promoting health status</td>
</tr>
<tr>
<td>• Promoting self-management</td>
</tr>
<tr>
<td>• Preventing health problems</td>
</tr>
<tr>
<td>• Providing rehabilitation</td>
</tr>
<tr>
<td>• Providing education</td>
</tr>
<tr>
<td>• Evaluation and research</td>
</tr>
</tbody>
</table>

**BOX 2. ENHANCED ROLE**

A nurse-enhanced generic pulmonary rehabilitation role features the nurse as:

- Care provider
- Surrogate for resources
- Counsellor
- Educator
- Leader
- Researcher
- Case manager
- Signposter

At every assessment, patients are asked what would make a difference to their life – for example, they may want to feel less breathless, know more about their disease or walk further before feeling short of breath. Once a goal is established, the six-week programme is oriented around this.

By encouraging patients to strive towards an individual aim, nurses can help them clarify their domains of dependence (reliance on others), interdependence (shared reliance on another that can be a two-way process) and independence (self-reliance). Goal-oriented care encourages patients to assume maximum responsibility for meeting their treatment aim.

**The nurse-enhanced generic role**

**Reinforcing physical health**

One goal of PR is to maximise patients’ ability to improve their exercise tolerance. Patients are prescribed an exercise programme based on the outcomes of two walking tests that assess their exercise capacity (Singh et al, 2010; 2008; Revill et al, 1992).

Many patients are anxious about these tests and fear becoming breathless and aggravating their condition. By using the nursing process to assess, plan and evaluate, nurses can help patients express these anxieties and ensure they understand why exercise is important, and how it can improve their ability to do daily activities.

**BOX 3. PULMONARY REHABILITATION**

The pulmonary rehabilitation programme covers:

- Relaxation
- Disease education
- Dietary advice
- Benefits advice
- Energy conservation
- Medication advice
- Chest clearance
- Breathing control techniques

**Emotional functioning and coping skills are thought to be strong predictors of health behaviours, which is particularly important for PR. By understanding how mood, mastery and self-efficacy can alter the outcome of PR, nurses can use their knowledge and empathy to help patients develop coping mechanisms. This can encourage behaviour change and improve wellbeing.**

**Activities of daily living**
Nurses have a core function in assessing activities of daily living and assisting patients to meet their needs. It is important to assess how patients are coping with all activities of living using a standard assessment process.

In PR nurses can make an important contribution to the assessment of patients’ nutritional intake and sleep patterns, which are important components of the PR assessment. During the programme, nurses give dietary advice and, if required, offer help to modify diets.

Being underweight can add to the decline of patients’ general physical condition. Being overweight can make patients more breathless, especially when moving around.

Equally, reasons for altered sleep patterns can be explored. Disturbed sleep may
indicate non-adherence to or inadequate inhaler use, sleep apnoea, pulmonary hypertension or anxiety.

**Sexual expression**
Nurses also need to be prepared to address issues of sexual health with their patients. It should not be assumed that because patients have a long-term condition they no longer wish to express their sexual feelings or convey expressions of their sexuality (Wells, 2002).

Vincent and Singh (2007) stated that sexual expression is an important part of individuals’ identity and that nurses should consider whether or not poor sexual health has a direct effect on their patients’ quality of life.

If a lung condition is preventing patients from engaging in sexual activity and having a detrimental effect on their quality of life, there should be strategies to address this. Nurses could look for ways to increase comfort during sexual activity, which could mean exploring the use of different positions or increasing the physical support of partners.

It is necessary to be aware of one’s own sexual attitudes when addressing patients’ sexual health needs and avoid imposing personal judgements or making assumptions about individual patients’ needs.

**Medication review**
The relief of some respiratory symptoms is reliant on the effective use of, and adherence to, prescribed medicines. Observing and providing advice on the following are all important elements of the nurse’s role:

- Inhaler technique;
- Calculating inhaled steroid doses;
- Assisting patients understand their medication;
- Reported use of medication.

**Conserving energy**
As part of PR programmes, patients are taught how to make adaptations to their life and to improve their general wellbeing and to improve their quality of life. This may include exploring the use of different positions or increasing the physical support of partners.

It is important that rehabilitation and nurses have a duty of care to ensure these opportunities are made available to them.

**Advance care planning**
PR is also a forum to address advance care planning. Nurses can help patients and carers develop a pathway of care for the end of life when the patient is not able to participate in treatment decisions.

Advance care planning takes into account the burden of treatment, therapies such as ventilation and, ultimately, the patient’s preferred place to die.

**Conclusion**
PR as a specialist allows nurses to assess, provide and evaluate evidence-based practice. It enhances the promotion of health and self-management, along with the attainment of patients’ goals.

Traditionally a physiotherapist’s specialty, PR has moved into the realm and capabilities of respiratory nurses, who can use their skills to enhance the care provided and help achieve Florence Nightingale’s concept of the reparative process.

Nurses can help to improve the optimal level of functioning by helping patients live “alongside”, as opposed to “with”, their incurable disease. NT

**References**

For more on this topic go online...
- Nutrition screening in patients with COPD
- bit.ly/NTCOPDNutrition