The value of psychology and psychologists in supporting people with COPD and respiratory teams

Introduction

This is a London Respiratory Network (LRN) briefing paper on the value of psychological interventions and the role of psychologists in supporting people with Chronic Obstructive Pulmonary Disease (COPD). In 2012 the King's Fund Centre for Mental Health argued that Clinical Commissioning Groups (CCGs) should prioritise integrating mental and physical healthcare more closely and improve the support for the emotional, behavioural and mental health aspects of living with long-term health conditions.[1] Specific evidence for the psychological treatment of people with COPD is relatively new and detailed summaries are not widely available. Therefore this paper summarises the emerging evidence and makes recommendations for clinical teams and commissioners.

It also starts from an underlying assumption that many people with COPD experience breathlessness and that breathlessness is the symptom that drives admission in a large majority of cases[2]. We also recommend the IMPRESS breathlessness guidance that suggests we assume everyone with chronic disabling breathlessness has associated anxiety to a lesser or greater extent – what varies is how much impact it has.[3] We use the term "breathlessness" throughout, rather than the term dyspnoea, which is not a term used by patients.

This paper considers the following dimensions:

- Psychologist input in all settings to support behaviour change with people who have COPD (e.g. adherence to treatment and use of appropriate medical services)
- Psychological interventions by clinicians who care for people with COPD, supported by psychologists integrated in teams
- Psychologist interventions for people with COPD and psychological issues related to their respiratory health
- Psychologist intervention in people with COPD and one or more mental health diagnoses

Background

When estimating value in healthcare, we need to estimate both outcomes and the cost of delivering those outcomes and compare that to the cost of the current situation.[4] The cost of co-morbid psychological health issues for people living with long-term physical health conditions is substantial.

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[3] IMPRESS. Breathlessness IMPRESS Tips for Commissioners. Accessed January 2016 http://www.respiratoryfutures.org.uk/knowledge-portal/impress-documents/impress-breathlessness-algorithm/

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These issues may meet criteria for psychiatric diagnoses or may be more complex and illness-specific, such as adjustment to diagnosis, health behaviour change and addressing fears about what symptoms mean, disease progression and death. Common themes for therapy include adaption to diagnosis, building self-efficacy and developing skills for coping[5] . Involving carers will be beneficial in some cases.

It is not uncommon for people with COPD to be living with the lifelong psychological consequences of childhood adversity, which significantly increase the complexity of these processes.[6]

Reduced quality of life and poorer health outcomes for patients are commonplace and the increased costs to the health care system are significant. Naylor and colleagues [1] suggest that between 12 and 18 per cent of all NHS spending on long-term conditions in England is linked to poor mental health, which equates to between £8 billion and £13 billion each year. For people living with COPD, co-morbid mental and psychological health difficulties are frequently associated with poor outcomes: higher rates of exacerbation, use of primary and secondary medical care[7]hospitalisation, readmission, length of stay and reduced levels of adherence, self-management and survival rates after emergency treatment than people without psychological co-morbidities.[8] [9] [10] Compared to the general population, the prevalence of depression and anxiety is significantly higher in people with COPD and, although precise explanations for these increased rates are unclear, there seems to be a complex inter-relationship between psychological and physiological processes.[11] [12]

And yet, while the burden in terms of personal and NHS cost of co-morbid mental and psychological health difficulties for people living with COPD is high, the evidence for the effectiveness of psychological interventions used to treat these difficulties is promising[13]. Furthermore, respiratory clinicians with experience of working with psychologists embedded in their teams highly value their input to individual patient care and the wider work of the team. This can support a stepped care model, with patients with the most complex psychological needs receiving more intensive psychological input, directly from the psychologist and through this wider work.

Relationship to the COPD Value Pyramid[14]

Psychology has much to contribute at every level of the London COPD Value Pyramid.

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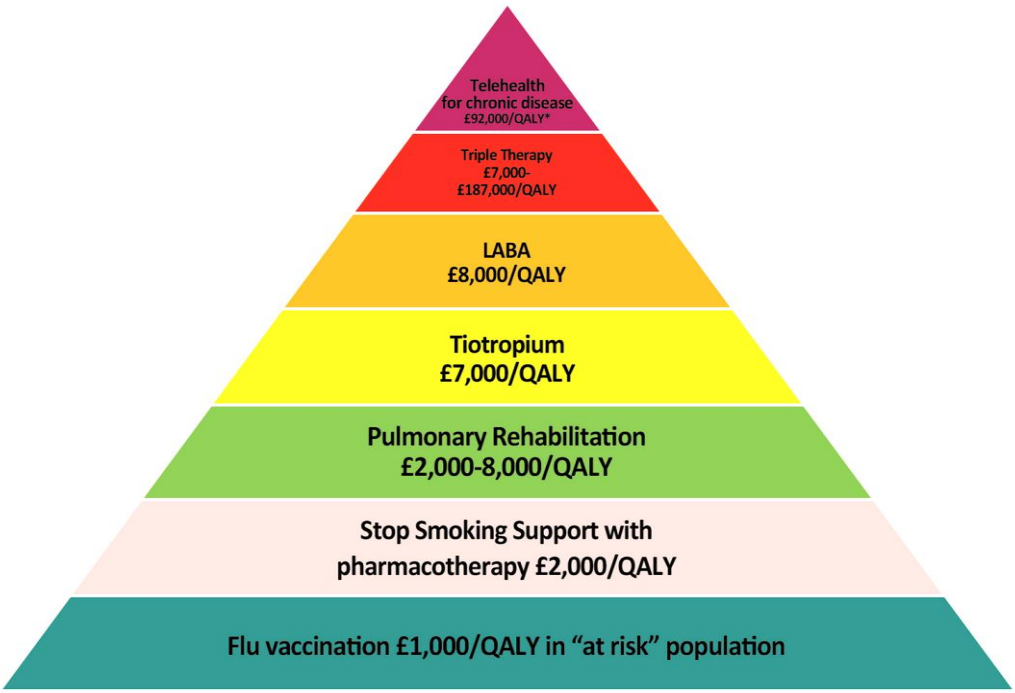
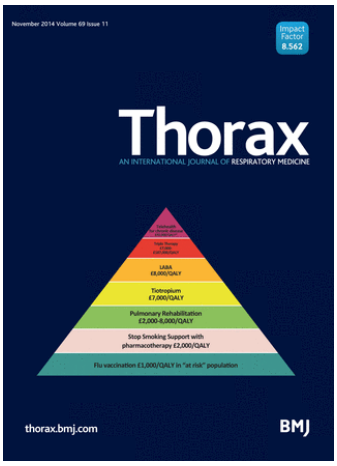
[14] Value pyramid on Thorax cover October 2014. Available from https://www.networks.nhs.uk/nhs-networks/london-lungs/latest-edition-of-thorax-publication [Accessed 5/9/2016].





Health beliefs play a crucial role in the choices of patients, their families and health professionals to have their **flu vaccination**. Psychologists can design interventions to explore and influence these at both the individual and organisational levels[15] [16]

Psychological interventions complement pharmacological approaches in overcoming barriers to **smoking cessation** [17] [18]

The national COPD audit showed that only 25% of those eligible for **Pulmonary Rehabilitation (PR)** currently register and half of them complete the programme. Engagement in PR is known to be poorer for those with more complex needs, including depression and continued smoking. There is substantial evidence (see below)[19] supporting the role of psychology in overcoming barriers to engagement with PR and maximising its benefits.

Psychological interventions can also support belief and confidence in **using inhalers** optimally, and the principles of psychological support underpin the rationale for telehealth interventions .

Improving access and provision of specialist palliative care for those with COPD is seen as a priority in the UK.[20] In addition to an improvement in physical symptoms, patients' perceptions of their psychological health – especially mood, self-worth and self-confidence -

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improved after receiving palliative care.[21] Psychologists have made important contributions within palliative care, providing support and psychological interventions to assist with anticipatory grief, anxiety and panic, adjustment reactions, existential and spiritual issues, advance care planning, life review and unresolved issues that are likely to surface as meaningful concerns. [22] Psychological support has a specific role in respiratory care in enabling the impact of breathlessness, as distinct from the identification and treatment of hypoxaemia, to be explicitly addressed by patients, carers and clinicians.[23]

What is the evidence for the effectiveness of psychological interventions?

Psychological interventions for people with COPD include specific cognitive-behavioural therapeutic (CBT) interventions, as well as the integration of psychologists into COPD teams to offer both individualised psychology input as part of a multidisciplinary team and contribute to service redesign, consultation, supervision and training for colleagues in behavioural and psychological approaches. The emerging evidence is showing benefits in physical and psychological outcomes, quality of life and cost savings. This will now be summarised.

CBT is a talking therapy which focuses on how thoughts, beliefs and attitudes affect feelings and behaviour, and teaches coping skills for dealing with different problems. In 2008 Coventry and Gellatly reviewed the evidence available for the benefits of CBT for people with COPD and found it promising, although limited.[24] They noted that it was difficult to separate these benefits from those of exercise and education, with which CBT was often combined. Studies included in this review used a variety of treatment models and outcome variables:

- Group CBT improved psychosocial functioning[25]
- Group CBT improved exercise tolerance[26]
- Integrated programme of CBT, exercise and education achieved large and significant reductions in depression and anxiety[27]
- A single two-hour group CBT session with homework and phone follow-up, reduced anxiety and depression more than education alone[28]
- Adding a weekly psychology session to a programme of exercise and education had significant benefits for anxiety, depression and exercise capacity[29]

A number of subsequent studies have shown that CBT is effective in treating anxiety and depression among people with COPD. These findings are summarized in a 2014 meta-analysis, finding small but significant effects on both of these variables.[30]

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- Group CBT significantly improved quality of life, anxiety and depression, with improvements maintained over the following year[31]
- Anxiety and depression were significantly reduced post-treatment, and at follow-up eight months later[32]
- CBT can prevent the development of, or worsening of panic and anxiety symptoms in COPD. Patients who had completed pulmonary rehabilitation were randomized to four sessions of CBT or routine care. The former group had fewer panic attacks, anxiety symptoms and catastrophic cognitions over the following eighteen months and fewer hospital admissions during part of that period.[33]

Who can deliver CBT?

The evidence for system value and cost savings is based on the work of psychologists embedded in teams. A number of studies have shown that cognitive-behavioural interventions delivered by nurses can also be effective in increasing individual wellbeing. Staff delivering such interventions require training and ongoing supervision by a more experienced therapist. A nurse-led four-session intervention for people with COPD and mild to moderate depression, incorporating CBT principles resulted in significantly improved depression, anxiety and St George's Respiratory Questionnaire scores at nine-month follow-up, relative to usual care[34] A CBT-based intervention delivered by nurses by phone resulted in significant improvement in anxiety, depression and quality of life.[35] A cognitive intervention targeting beliefs related to treatment adherence improved depressive symptoms and breathlessness-related disability post treatment and six months later.[36]

Improving Access to Psychological Therapies (IAPT)

In recent years, Improving Access to Psychological Therapies (IAPT) services have expanded their remit in order to provide support for people living with long-term health conditions who also experience mild to moderate common mental health difficulties such as depression and anxiety.

Although this support plays an important role, there is a clear case for the necessity of integrated psychological interventions delivered by psychologists with specialist skills who can also facilitate the necessary training, consultation and supervision in psychological working for the wider multi-disciplinary healthcare workforce. [37] The importance of psychologists working as part of integrated teams has been recognised and demonstrated by a number of respiratory teams, including some London service evaluations. They support clinical colleagues, both in delivering psychological support

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and in reflecting on their own practice, which improves their confidence as well as their competence. In addition they can help to depathologise psychological distress and encourage treatment teams to routinely consider and support the psychological health of patients with COPD alongside their physical health. The examples that follow all take this approach and demonstrate cost-effectiveness.

Services that have undertaken cost-effectiveness evaluation

The NHS Confederation review of the economic case for investing in the emotional and psychological wellbeing for patients with long-term conditions in 2012 suggested that delivering appropriate psychological interventions for patients with COPD was likely to deliver considerable NHS savings and patient health gains.[38]

Psychology, nursing, occupational and physiotherapy: Hillingdon

A Hillingdon service developed a cognitive-behavioural intervention for breathlessness in people with severe COPD. This was delivered to small groups of around six people, with contributions from a psychologist, nurse, occupational therapist and physiotherapist. The evaluation found significant improvements in depression, health status and presentations at the Emergency Department (ED), and non-significant improvements in length of hospital stay. [39]

This service demonstrated cost savings of £837 per person, which was around four times the cost of the intervention.39

Self-help manual: Hillingdon

The same group used a randomised controlled trial to evaluate the use of a cognitive-behavioural self-help manual, supported by an initial face-to-face assessment and two phone calls, compared to patient information (with similar support) among people with moderate-to-severe breathlessness. They demonstrated savings in healthcare usage of £450 per participant using the self-help manual, due to reduced admissions, bed days and A&E attendances. Anxiety and depression were also significantly reduced.[40]

Psychological support to improve completion rates of Pulmonary Rehabilitation: the Whittington

People with anxiety and depression are less likely to complete pulmonary rehabilitation (PR), and thus miss the substantial benefits it has been shown to deliver. The Whittington Hospital Psychology service aimed to address PR completion rates.[41] It also aimed to support smoking cessation and other health-related behaviour change and prevent admissions and unwarranted resource utilisation. The psychologist contributed directly to one of the two weekly PR sessions, leading sessions on adjustment, breathlessness and anxiety, managing low mood and coping with flare-ups. She also modified the entire programme to give a greater emphasis on building self-efficacy and motivation. She joined a respiratory physiotherapist for all pre-group assessments to increase motivation and identify patients who could benefit from brief psychological intervention to prepare for PR. Psychological intervention was also available post-PR for those who needed it. A huge improvement in completion rates was achieved, from 50% to 92%. This was, in turn, associated with a significantly

[38] NHS Confederation. Mental Health Network (2012). *Investing in emotional and psychological wellbeing for patients with long-term conditions.* London : NHS Confederation

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lower mean admission rate in the year following PR (0.2 v 1.4) and bed-day usage (4.6 v 10.4), relative to non-completers. These benefits were associated with large positive changes on the Mastery component of the Chronic Respiratory Questionnaire. This saving in bed-days was used to successfully make the case for long-term funding of a psychologist to work as a member of the respiratory team.

Psychology integrated into respiratory care: Bath[42]

Clinical psychology was integrated into a specialist respiratory department for a nine-month trial period. The issues addressed included breathlessness-related anxiety and panic, low mood, health concerns, self-management, coping strategies and supporting discharge. Rates of clinically significant symptoms of depression, anxiety and health anxiety were 70%, 40% and 21%. For patients for whom follow-up data for at least a month after psychological input were available, admission frequency was reduced by 77% from the period before input and, for those who were admitted, mean reduction in length of stay was 1.7 days. The cost savings more than covered the cost of the psychology service.

Integrated service spanning inpatient and community settings: Southend

The Southend project (SEPT, unpublished presentation to Southend Clinical Commissioning Group) aimed to establish a care pathway spanning inpatient and community settings to address the psychological needs of people with COPD, decrease their service use and increase quality of life, as well as acceptance and confidence for self-management. They screened people with COPD for psychological distress and unhelpful beliefs and intervened promptly to address these. The psychologist worked in a flexible way, with intensity of intervention tailored to individual needs. Individual therapy (up to 12 sessions) was offered to those with the most complex needs, with flexibility in location and timing to accommodate the unpredictable course of COPD. She also offered two kinds of group interventions, one based on CBT and one on Acceptance and Commitment Therapy, and saw patients for one-off sessions when appropriate. Psychologically-informed self-help materials were available and could be supported by nursing staff in hospital and the community. The psychologist also contributed directly to the PR programme, offered consultation, close liaison and joint working with the multi-disciplinary team, particularly community matrons, ward and pulmonary rehabilitation staff, supporting them to use psychology as part of their day-to-day practice). The team demonstrated total savings of £467,208 from reduced admissions and A&E attendances, compared with a total cost of £120,000 for the service (see Figure 1).

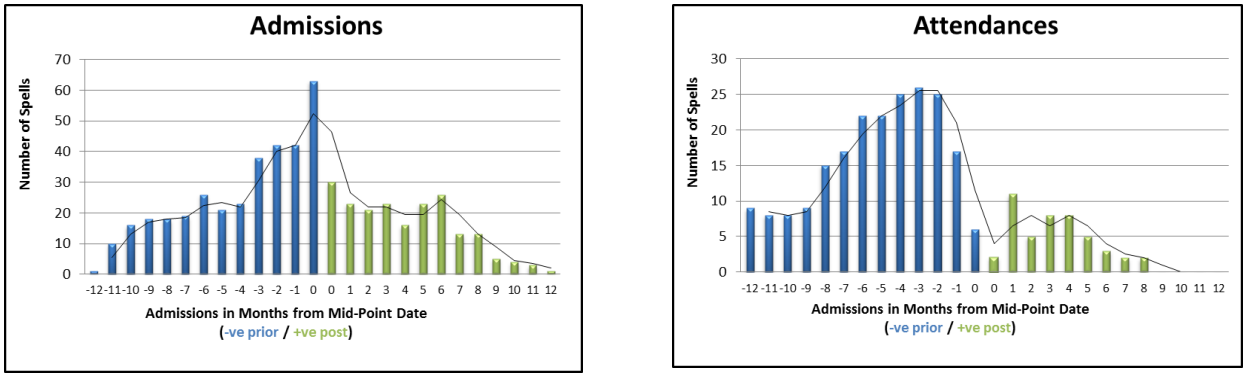

Figure 1: service use outcomes from Southend study

[42] Thew, G., MacCallam, J., Robinson, J., Salkovskis, P. & Suntharalingam, J. (2015) Can clinical psychology input improve care quality and reduce admissions among patients with respiratory disease? Thorax Supplement 3 A229

Summary and recommendations

This evidence provides a strong rationale for increasing the capacity and availability of psychological interventions for people living with COPD. There are a number of key messages that emerge from the evidence:

1. People with COPD are at risk of exacerbations that can lead to unscheduled care, hospital attendance, admission and poor outcomes. A high value COPD service needs to reduce unscheduled use of health services for breathlessness without hypoxia by supporting people with COPD to cope with their condition and manage their health effectively.
2. Only 18% of people with COPD only have COPD. Therefore COPD services must be prepared to assess for and treat comorbidities.
3. A substantial proportion of people with COPD will have psychological comorbidities. Ensure that there are specialist services to assess the psychological needs of all people with COPD.
4. Commission services that offer psychological interventions for people with COPD for whom psychological issues have significant impact on their lives.
5. Recognise that the evidence for psychology and psychologists demonstrates not only an individual value but a system value by improving the capability and confidence of patients and clinicians in psychological approaches.
6. This is important because supporting people with long term conditions requires clinicians and patients to work in a different way that co-produces good outcomes, and psychological techniques are an essential part of that.
7. Psychology can have impact at all levels of the COPD Value Pyramid.
8. There is a role for IAPT services but it is not enough without the input of psychologists working within respiratory teams.
9. Specialist respiratory psychologists working in respiratory teams are able to supervise, train and take a leading role in service redesign, and address more complex psychological and illness specific issues.
10. There are a number of cost-effective models. Learn from these, and adapt to your own locality and circumstances.

Jane Hutton, Daniel O'Toole, Siân Williams, Noel Baxter, Louise Restrick
On behalf of the London Respiratory Network
September 2016

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