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Title:
Living with Breathlessness: Quality Improvement Project to Enhance Staff Confidence and Patient Self-Management

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Abstract

Breathlessness affects a significant proportion of patients in palliative care. This Quality Improvement Project aimed to develop a patient self-management resource, *Living with Breathlessness,* and to assess its impact on healthcare professionals' confidence in non-pharmacological management of breathlessness. Using a Plan-Do-Study-Act (PDSA) cycle, a multi-professional team developed the resource based on staff suggestions. Pre- and post-intervention surveys were used to measure healthcare professionals' confidence. The resource increased confidence scores from 7 to 9 out of 10, and 93% reported that it enhanced their ability to support patient self-management. The project demonstrates the potential of self-management tools to improve healthcare professionals' confidence, with potential implications for staff well-being and patient care. Further research is needed to assess long-term impacts.

What is already known on this topic

Breathlessness affects a large proportion of patients with metastatic cancer and advanced non-malignant conditions. Non-pharmacological interventions like breathing techniques, fan therapy, and relaxation strategies have proven effective in alleviating breathlessness and its associated distress.

What this study adds

This quality improvement project developed a comprehensive patient resource, *Living with Breathlessness*, which improved healthcare professionals' confidence in using non-pharmacological measures to manage breathlessness in palliative care.

How this study might affect research, practice, or policy

The findings suggest that implementing a patient self-management tool can enhance staff confidence. This has implications for improving staff wellbeing and thus the quality of patient care. Further research is needed to evaluate long-term outcomes and broader impacts on healthcare systems.

Introduction

Breathlessness affects approximately 70% of patients with metastatic cancer and up to 90% of those with advanced non-malignant conditions, often exacerbated by psychological, physical and social factors. This necessitates a combination of pharmacological and non-pharmacological measures (1,2).

Non-pharmacological strategies such as breathing techniques, fan therapy, and relaxation exercises are supported by a growing body of evidence for their effectiveness in managing breathlessness and reducing emotional distress in breathless patients (3).

Research suggests that empowering patients to self-manage symptoms reduces their reliance on healthcare services. One study demonstrated a 33% reduction in self-referrals to emergency departments and 19% fewer outpatient appointments in patients who had greater confidence in self-managing their symptoms (4).

While resources to support self-management at home exist (5, 6), studies have yet to explore their impact on healthcare professionals' (HCP) confidence in managing breathlessness.

This Quality Improvement Project aimed to develop a breathlessness self-management resource and assess its impact on HCP confidence.

Methods

Context

The QIP was conducted at Oxford University Hospitals NHS Trust palliative care service. A multi-professional team including a Palliative Medicine Consultant, Specialty Registrar, Community Palliative Care Nurse, and Specialist Occupational Therapist led the project. It was registered with the local audit department.

Intervention:

Based on feedback from an initial survey, the project team developed *Living with Breathlessness* resource, a written resource for patients. The resource included breathing exercises, relaxation techniques, fan therapy, and a personalised self-management plan.

Study of the intervention

To measure the impact of the resource on HCP confidence, we used pre- and post-intervention surveys. HCPs rated their confidence in using non-pharmacological strategies to manage breathlessness on a scale of 1 to 10.

Ethical considerations:

The study was considered a Quality Improvement Project and did not require formal ethical approval. No patient-identifiable data were used. The project was registered with the local audit department and reviewed at its completion in Clinical Governance.

Results

Initial Survey

A total of 49 HPCs from inpatient, community, and hospital palliative care settings completed the initial survey. Their average confidence in using non-pharmacological measures to manage breathlessness was 7 out of 10. Fewer than 25% of respondents had access to existing patient self-management resources, and 100% expressed interest in a local breathlessness management resource.

Suggestions for content included:

- Explanation of mechanisms of breathlessness (88%)
- Breathing exercises (96%)
- Relaxation techniques (92%)
- Fan therapy (98%)
- Summary of the pharmacological management of breathlessness (88%)
- Template for a breathlessness self-management plan (86%).

Based on the feedback from the survey, the *Living with Breathlessness* resource was developed by the multi-professional team, incorporating suggested content to meet both patient and staff needs.

Post-Intervention Survey

Three months after the resource was implemented, HCP confidence scores increased to an average of 9 out of 10. Additionally, 93% of HCP reported that the resource enhanced their ability to support patients in managing breathlessness. Seventy percent requested further resources for managing symptoms such as anxiety and fatigue. The resource has been adopted by other teams, including the local heart failure team.

Discussion

This QIP highlights the importance of self-management tools in palliative care, in line with current healthcare policy which advocates for a transition from paternalistic medicine, towards a more collaborative partnership with patients (4). However, self-management remains an underexplored area in palliative care, particularly its impact on HCP (3).

The *Living with Breathlessness* resource significantly improved HCP confidence in managing breathlessness with non-pharmacological strategies. This finding resonates with existing literature which has linked increased staff confidence to reduced emotional exhaustion and depersonalisation, thereby preventing burnout (7).

Despite these positive findings, the QIP had several limitations. The small sample size of 49 HCPs from a single healthcare setting limits the generalisability of the results, and the three-month follow-up period may not capture whether the improvements in staff confidence are sustained over time.

Additionally, while the study measured HCP confidence, it did not assess direct patient outcomes, such as symptom control or quality of life. Expanding future studies to evaluate these outcomes would provide a more comprehensive understanding of the resource's impact. Furthermore, patient feedback could help ensure the resource meets a broader range of needs. Lastly, although HCPs expressed a desire for resources addressing other symptoms, such as anxiety and fatigue, this project focused solely on breathlessness, indicating an opportunity for further development of similar tools for comprehensive symptom management.

Our QIP demonstrates the value of a multi-professional, collaborative approach to developing patient resources that not only benefit patients but also empower staff, potentially improving staff well-being and enhancing the quality of care.

Given the anticipated 25% increase in patients requiring palliative care by 2040, many of whom will live longer with chronic conditions and associated symptoms like breathlessness—addressing staff well-being through such interventions is increasingly important (8).

Conclusions

This Quality Improvement Project demonstrated that the *Living with Breathlessness* resource improved HCP confidence in using non-pharmacological strategies to manage breathlessness. By enhancing staff confidence, the resource has potential to contribute to better staff well-being and improved patient care.

Further research should assess the long-term effects of such interventions on both patient outcomes and staff well-being, as well as their broader impact on healthcare systems.

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Ethics: This was a Quality Improvement Project therefore no formal ethical approval was required. However, the project was registered with the local audit department and presented to Clinical Governance at its completion.

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