



A Reflective Exploration of Self-Efficacy and Management of Chronic Obstructive Pulmonary Disease Using a Culturally Adaptable Information Tool

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Abstract

Chronic Obstructive Pulmonary Disease (COPD) has been described as a progressive airway disease that leads to cognitive and physical limitations and makes patients dependent on others, eventually impacting patients' self-efficacy due to loss of self-confidence in performing daily living activities and coping with the disease. Patient education has long been recognised as a cornerstone in supporting individuals in navigating and coping with chronic illness. Providing access to culturally relatable, comprehensible educational tools can significantly enhance information and treatment uptake, foster stronger self-confidence, and strengthen self-efficacy among people living with COPD. Providing patients with the necessary information and educational materials is a basic step in managing the impact of COPD. Our on-the-job reflections prompted the development of a comprehensible, meaningful, and adaptable informational package focused on self-efficacy and health education for people living with COPD.

Keywords

Self-Efficacy, COPD, Health Information, Reflective Practice, Health Promotion

1. Introduction

Chronic Obstructive Pulmonary Disease (COPD) results from a series of dynamic and cumulative gene–environment interactions over a lifetime [1]. The Global Initiative for Chronic Obstructive Lung Disease (GOLD) defines COPD as “a heterogeneous lung condition characterised by chronic respiratory symptoms (dyspnoea, cough, sputum production, and/or exacerbation) due to abnormalities of the airways (bronchitis, bronchiolitis) and/or alveoli (emphysema) that cause persistent, often progressive airflow obstruction [2].” Globally, COPD remains a leading cause of morbidity and mortality, with its prevalence and impact continuing to rise [2]. Martinez *et al.* highlighted the significant global economic, healthcare, and lifestyle burdens posed by COPD and its impact on individuals, the public sector, and societies worldwide [1].

Nearly half of stable COPD outpatients report that symptoms, such as depression, suboptimal physical activity, pain, and other respiratory-specific concerns, limit their quality of life [3]. Thus, COPD has been described as a progressive airway disease that leads to cognitive and physical limitations and makes patients dependent on others, eventually impacting their self-efficacy due to loss of self-confidence in performing daily living activities and coping with the disease [4]. In the context of this paper, self-efficacy refers to an individual’s belief in and confidence in their ability to achieve specific goals related to managing their COPD and improving their overall well-being [4]-[6].

Patient education has long been recognised as a fundamental component in assisting individuals to manage and cope with chronic illnesses [7] [8]. The provision of culturally relevant and comprehensible educational resources can substantially enhance the assimilation of information and treatment, bolster self-confidence, and reinforce self-efficacy among individuals living with COPD [9]. Cultural adaptability pertains to the applicability of health education across diverse settings and cultures [10] [11]. Golaghaie and Veeramani observed a direct correlation between patient education uptake and the use of culturally sensitive, adaptable educational materials [10] [12].

2. Objective

The objective of this paper is to showcase how reflective practice among healthcare practitioners helped to curate an innovative yet simple educational tool for people living with COPD and healthcare professionals in diverse settings of acuity.

3. Methods


Reflective practice informed the design of this paper. Below is a collective reflection of our team on the experiences that shaped this tool using Driscoll’s model [13].

What? The adult respiratory service of Midland Regional Hospital Portlaoise holds fortnightly and ad hoc huddles. In these huddles, we reflect on the service and needs, our practice, lessons learnt and areas for improvement. Members of the team include consultant physicians, advanced nurse practitioners (ANP), non-

consultant hospital doctors (NCHD), and clinical nurse specialists (CNS), while linking in with colleagues from the academic and public health settings as required. Patients’ need for basic information and their concerns about managing and coping with COPD are some of the recurring themes identified in our practice and during the huddles and reflective cycles. It was observed that although patients acknowledged the relatable specialised health education and the abundance of informational materials available to them, many appeared overwhelmed by the volume and complexity of the information intended to support them.

So What? This realisation illuminated a persistent disjunction between the availability of clinical information and service users’ comprehension and uptake. Although health education is routinely delivered, informational overload frequently undermines its effectiveness. Therefore, we, as clinical practitioners, observed the need to assess patients’ health literacy during clinical encounters to ensure that health education is tailored to their lived context and disease progression. So, we considered that an informational package of moderate volume, devoid of medical jargon, would make the required COPD information more comprehensible and relatable to this patient cohort.

Now What? These reflections led to the conceptualisation of a concise, single-sheet informational package (Figure 1(a), Figure 1(b)). The contents and sections of the brochure were informed by the broad range of questions that people living with COPD and their families usually ask. The team members from the academic and public health settings considered the merits of this brochure for the wider body of knowledge, especially if advanced as a template that clinicians from other settings, cultures and languages can adapt; a consideration that midwifed this paper.



Quality of Life Counts

- Millions of people globally live well with COPD. Be deliberate about understanding and embracing your new reality.
- Don't cave in with COPD, evolve with it.
- Maintain a weekly diary of activities that mean quality of life to you and your family.
- Socialise within reason – remember, if you don't use it, you may lose it. Don't lose your muscles, smiles, social connections and happiness.
- Don't stigmatise against yourself. Requiring oxygen support is nothing to be ashamed of. Use your oxygen safely and joyfully.
- Master energy-saving measures such as prioritising and doing the important things first, pacing yourself, planning ahead and helpful posture.
- Monitor your CAT score periodically. Scores above 20 are concerning and if ever above 30/40, contact your GP or go the ED.

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Take the Chronic Airways Assessment Test (CAAT)

This questionnaire will help you and your healthcare professional measure the impact your Lung Disease is having on your wellbeing and daily life.

For each item below, select the box that best describes you currently. Be sure to only select one response for each question.

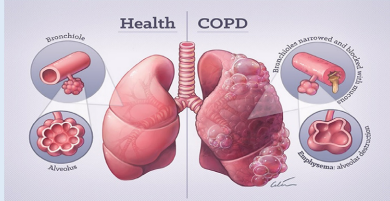
Example: I am very happy (0) (1) (2) (3) (4) (5) I am very sad

SCORE

I meet enough	(0) (1) (2) (3) (4) (5)	I cough all the time	0 1 2 3 4 5
I have no phlegm (mucus) in my chest at all	(0) (1) (2) (3) (4) (5)	My chest is completely full of phlegm (mucus)	0 1 2 3 4 5
My chest does not feel tight at all	(0) (1) (2) (3) (4) (5)	My chest feels very tight	0 1 2 3 4 5
When I walk up a hill or one flight of stairs I am not breathless	(0) (1) (2) (3) (4) (5)	When I walk up a hill or one flight of stairs I am very breathless	0 1 2 3 4 5
I am not limited during any activities at home	(0) (1) (2) (3) (4) (5)	I am very limited during activities at home	0 1 2 3 4 5
I am confident leaving my home despite my lung condition	(0) (1) (2) (3) (4) (5)	I am not at all confident leaving my home because of my lung condition	0 1 2 3 4 5
I sleep soundly	(0) (1) (2) (3) (4) (5)	I don't sleep soundly because of my lung condition	0 1 2 3 4 5
I have lots of energy	(0) (1) (2) (3) (4) (5)	I have no energy at all	0 1 2 3 4 5

Total score

Building Self-Efficacy with COPD



A simple guide for COPD patients, relatives, carers and educators.

Demystifying COPD

"Is COPD the end of the story for me?" ...No

"Can I still live a quality life with COPD?" ...Yes


"Am I alone in this journey?" ...No

"What do I do now?" ...Take charge

"How?" Let's take a short walk...

For more information, please scan the QR code.

(Embed QR code that links to relevant local or national blogs or websites).



(a)

What is COPD?

Chronic Obstructive Pulmonary Disease (COPD) is a common lung disease causing restricted airflow and breathing problems (WHO, 2024). In people with COPD, air is often trapped in the lungs and the lungs can get clogged with phlegm (WHO, 2024).

Causes and predisposing factors of COPD

- Smoking and vaping
- Asthma and airway hyperactivity
- Family history
- Environmental factors
- Socio-economic factors
- Infections
- Gender
- Race and ethnicity

How COPD manifests

- Ongoing coughs (often with phlegm)
- Trouble catching breath
- Easily fatigued
- Chest tightness or heaviness
- Frequent chest infections
- Wheezy breathing

COPD burden on quality of life

- Reduced social interactions
- Limitations in activities of daily living
- Independence may be reduced or lost
- Reduced productivity
- Early retirement and early ageing
- Depression, anxiety or sense of guilt



Bossing your COPD – 1

- Adhere to your prescribed medications – continue to use your control inhaler(s) or nebuliser(s) even when you are well.
- Adhere to GP/hospital appointments.
- Ensure that you are vaccinated up to date – check with your GP every autumn.
- Have a self-management plan in place – developed with your GP or respiratory specialist(s).
- Have your rescue inhaler to hand always.
- In crisis situation, call your GP or out-of-hours service. In emergency, call 112 or 999 for the ambulance.
- When you are short of breath, use your rescue inhaler as advised, breathe in for 2 seconds and out for 4 seconds. Instead of panicking, be in charge.

Inhaler Technique

- Use your inhaler as prescribed.
- Where applicable, use the aerochamber device to optimise inhaler treatment.
- Always have your rescue inhaler to hand.



COPD Self-Management Plan



MEDICATIONS



ACTION PLAN



BREATHING EXERCISES



AVOIDING TRIGGERS

- If you smoke or vape, the one single but most rewarding step you can take right now is to stop smoking and vaping. Nicorette inhalers and patches have been proven to help. Also, ensure a smoke-free environment.
- Identify what causes your flare and when.
- Air quality is linked to lungs' health – avoid irritants like fumes, smoke and dust.
- Exercise as much as you can tolerate
- Consider joining a COPD support group
- Maintain good sleep pattern, eat healthily and drink optimally
- Deep breathing exercises

Oxygen

- Oxygen is a drug, use as prescribed.
- No cause for shame.
- Fire hazard can be fatal, ensure safe usage and storage of oxygen.
- Quit smoking before starting oxygen.
- Breathe!



(b)

Images in this brochure were generated from Google Images.¹

Figure 1. (a) The Trifold Informational Package on Self-efficacy with COPD—Back pages; (b) The Trifold Informational Package on Self-efficacy with COPD—Inside pages.

The informational package uses curiosity-stimulating questions and relevant images on the front page, and offers practical insights for people living with COPD on how to maintain productive lifestyles. It outlines the benefits of ceasing smoking and vaping, engaging in physical exercise as tolerated, and participating in support group activities. It also helps patients recognise factors that can trigger exacerbations, such as seasonal changes or infections. The brochure also reinforces the importance of adhering to medication and the ready availability of rescue inhalers to help patients stay “in charge” instead of panicking during dyspnoea episodes. Therefore, the adaptable informational package advanced in this paper is not merely an academic exercise but a response to our clinical reality and to observed service users’ demands. Although reflecting on clinical encounters informed this paper, patient data or inputs are not included.

By offering bite-sized, cogent insights on how to cope with COPD and using relevant pictures and layman’s language, this information tool provides valuable educational content that can potentially improve self-efficacy and promote the health of people living with COPD. In addition, this informational package can serve as a template for other respiratory clinicians from different parts of the world to adapt to their hospital protocols, local languages, cultural settings, imagery choices and health literacy levels of their patients. The collaborative engage-

¹Google Images (2026) <https://www.google.com/>.

ment among clinicians from respiratory, academic, and public health backgrounds within this reflective process enhanced its credibility and relevance, while also contributing to methodological rigour.

4. Discussion

Self-efficacy has been demonstrated as an essential component of effective management and coping strategies for people living with COPD [6] [14] [15]. Notably, studies have shown that self-efficacy is a significant unvaried predictor of 5-year survival trend among people living with COPD [16]. Optimal self-efficacy is associated with improved confidence in performing activities of daily living and coping with the disease [4] [17]. Conversely, low self-efficacy is associated with poor disease coping and prognosis, as well as worsening economic burden of the disease and resource strain caused by frequent exacerbations and hospitalisations [6] [18]. However, despite the growing burden of COPD and its impact on patients, caregivers, and health systems [18], there remains room for significant improvement in patient-focused COPD education [19].

Evidence indicates that more than 65% of individuals living with COPD lack confidence in managing exertional dyspnoea, particularly during activities such as climbing stairs, exercising, and lifting heavy objects [15] [20]. Given that self-efficacy is a strong predictor of survival and reduced hospitalisation [15], the absence of comprehensible educational resources has direct implications for patient outcomes. Studies show that focused interventions that build self-efficacy during periods of physical exertion may yield substantial improvements, particularly for individuals who report low confidence in managing exertional demands [9] [15]. Therapeutic educational interventions, such as providing simple, relatable, and culturally acceptable information on how to plan, pace, and audit energy levels during energy-exerting activities, stress management, oxygen therapy, and social engagements, can improve self-efficacy [21] [22].

Guo *et al.* reported significant information needs among people living with COPD, particularly regarding daily care, knowing the disease and understanding treatment plans [23]. They also noted that COPD health education is predominantly designed and delivered from the perspective of healthcare professionals, and as a result, it often fails to align with patients' actual informational needs or learning preferences [23] [24]. Person-centred approach to therapeutic educational interventions, when conveyed in styles that match service users' health literacy levels [25] [26], not only has the potential to increase uptake of health information but also contributes to patients' sense of empowerment and overall well-being [27] [28].

Emerging evidence also suggests that health information brochures incorporating QR codes linked to user-friendly and patient-facing COPD support platforms can significantly enhance patients' access to, uptake of, and comprehension of relevant information [23] [29]. Such digitally enabled resources have the potential to strengthen self-efficacy- and support more effective self-management [7] [29].

The designed informational package (**Figure 1(a)** and **Figure 1(b)**) is a practice-informed resource with potential benefits to improve adherence, self-efficacy, or outcomes. The informational package reiterates the importance of joining a COPD support group and maintaining a weekly diary of activities that represent quality of life for patients and their families [22], as well as the need for a personalised self-management plan developed with GPs or respiratory specialist(s). Also, the resource explicates what a helpful self-management plan should include: types and dosages of maintenance and reliever inhalers and nebulisations, as well as what to do on ‘bad days’.

The resource emphasises the benefits of compliance with medical and nursing treatments and appointments, even when they are well [2] [30]. Similarly, it provides insights into the protective role of vaccinations against respiratory infections in reducing COPD exacerbations and preserving patients’ quality of life [2] [31]. It also provides guidance on the safe and appropriate use of oxygen therapy [2] [22], emphasising, as Harris observed, that reliance on supplemental oxygen is not a source of shame, but an important component of COPD management, especially for those with advanced disease [32].

The informational package also emphasises the significance of smoking cessation in COPD management. As Goldenberg *et al.* noted, smoking remains the leading cause of preventable illness, with the average smoker dying at least 10 years earlier than non-smokers and experiencing markedly diminished quality of life [33]. Additionally, the resource includes the Chronic Airways Assessment Test [34], which patients can self-administer and interpret, thereby enabling them to track the burden of the disease in their day-to-day lives.

Enhancing the uptake of health education among service users is more effective when it is supplemented with patient information leaflets [35] [36]. Evidence demonstrates that pictogram-based approaches improve engagement and uptake of essential health information, promote treatment adherence, strengthen self-efficacy and support self-management among people living with COPD [24]. Although Guo *et al.* observed that traditional brochures and pamphlets played a less significant role in educating patients about COPD [23], the growing preference for online information highlights the value of embedding QR codes, which markedly improve both accessibility and uptake of the health information [37].

Given that reduced self-efficacy among people living with COPD increases the burden experienced by caregivers [4] [6], educational measures that improve the self-efficacy of people living with COPD reduce the overall burden of COPD [24]. Therefore, patient-toned informational brochures with relevant visuals to convey efficacy-enhancing information, and simple language such as the practice-informed COPD information package above, have the potential to improve patient adherence, self-efficacy, and self-management [24] [36].

The limitations of this paper include the subjectivity associated with its reflection-based design, the single-service context, and the absence of formal, transferable usability or outcome evaluation.

5. Conclusion

Equipping patients with essential information and educational resources is a fundamental step in mitigating both the obvious and subtle impacts of COPD on patients and their families. Despite the abundance of educational materials available on COPD, many patients and their families face significant challenges due to information overload and the complexity of medical terminology. Our reflections, informed by practice, have led to the development of a COPD information package that is both relatable and easy to understand. This informational package has the potential to enhance health literacy related to COPD, strengthen the self-efficacy of individuals living with the condition and their families, improve their coping strategies, and contribute to their overall well-being. Additionally, this package is designed to be adaptable for use in various hospitals and across different cultural and linguistic contexts.

Conflicts of Interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

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