

Pulmonary rehab: Advancing copd management & access.

Lucy M. Harrison*

Department of Pulmonology, De Montfort University, United Kingdom

Introduction

Home-based pulmonary rehabilitation (HBPR) has proven effective, consolidating evidence that it significantly improves exercise capacity and health-related quality of life for individuals living with Chronic Obstructive Pulmonary Disease (COPD). It mirrors the benefits of center-based programs while offering distinct advantages in terms of accessibility and patient convenience, positioning HBPR as a valuable and effective alternative, especially for those encountering obstacles to traditional rehabilitation methods [1].

Structured, comprehensive strategies, such as integrated COPD management programs, have demonstrated their impact on patient outcomes. These programs, which often combine personalized self-management education with pulmonary rehabilitation, effectively reduce the frequency and severity of COPD exacerbations. This approach leads to enhanced overall disease control and contributes positively to a patient's quality of life [2].

The critical role of respiratory therapists in optimizing COPD management extends well beyond acute care settings. These professionals are integral to the design and execution of pulmonary rehabilitation initiatives. They provide advanced respiratory techniques and deliver essential patient education on self-management strategies, which collectively improve patient adherence to treatment plans and foster superior long-term health outcomes [3].

Telerehabilitation offers a promising avenue for delivering pulmonary rehabilitation, particularly for severe COPD patients. Research indicates that telerehabilitation programs are non-inferior to traditional in-person rehabilitation in terms of improving exercise capacity and quality of life. This makes it a practical solution for individuals facing mobility constraints or geographical barriers, significantly broadening access to vital care [4].

Pharmacological management of COPD is continuously evolving, with new drug combinations and delivery systems aimed at improving bronchodilation, reducing inflammation, and minimizing adverse effects. These advancements play a crucial role, complementing non-pharmacological interventions like pulmonary rehabilitation, to establish a more holistic strategy for managing stable COPD and preventing exacerbations [5].

While pulmonary rehabilitation delivers substantial initial improvements in exercise capacity and quality of life for COPD patients, maintaining these benefits over the long term often requires ongoing maintenance programs or repeated rehabilitation cycles. This finding underscores the chronic nature of COPD and highlights the persistent need for continuous support to sustain positive patient outcomes [6].

A focus on patient-centered care and shared decision-making is paramount in COPD management. Involving patients actively in their treatment choices, by integrating their preferences with clinical evidence, especially concerning medication adherence and participation in pulmonary rehabilitation, fosters greater engagement and leads to improved overall health outcomes [7].

Beyond the physical enhancements, pulmonary rehabilitation provides significant psychological benefits for COPD patients. Participation in these programs has been shown to reduce anxiety and depression, which are common comorbidities. Furthermore, it enhances self-efficacy, contributing to improved mental well-being and promoting a more proactive approach to managing their condition [8].

Digital health interventions are proving highly effective in boosting adherence to pulmonary rehabilitation and self-management plans for COPD patients. Technology-assisted programs, encompassing mobile applications and remote monitoring, can significantly enhance patient engagement and compliance, leading to superior clinical outcomes and a more streamlined healthcare delivery model [9].

The COVID-19 pandemic brought about profound changes in the delivery and accessibility of pulmonary rehabilitation for COPD patients. This period saw a rapid transition to virtual models, which, despite presenting challenges, offered valuable lessons in resource allocation and innovative service delivery. It suggests that a hybrid model, integrating both in-person and tele-rehabilitation, may become the future standard for care [10].

*Correspondence to: Lucy M. Harrison, Department of Pulmonology, De Montfort University, United Kingdom. E-mail: lucy.harrison@dmu.ac.uk

Received: 01-Feb-2024, Manuscript No. AAJPCR-24-174; Editor assigned: 05-Feb-2024, Pre QC No. AAJPCR-24-174 (PQ); Reviewed: 23-Feb-2024, QC No. AAJPCR-24-174; Revised: 05-Mar-2024, Manuscript No. AAJPCR-24-174 (R); Published: 14-Mar-2024, DOI: 10.35841/aaajpcr-7.1.174

Conclusion

Pulmonary rehabilitation (PR) stands as a cornerstone in Chronic Obstructive Pulmonary Disease (COPD) management, significantly improving exercise capacity and health-related quality of life. Home-based PR (HBPR) and telerehabilitation have emerged as effective alternatives to traditional center-based programs, addressing accessibility and convenience barriers for patients [1, 4]. These approaches demonstrate comparable outcomes while expanding crucial care access. The effectiveness of PR extends beyond physical improvements, offering substantial psychological benefits by reducing anxiety and depression and enhancing patient self-efficacy [8]. Long-term benefits of PR, however, often necessitate ongoing maintenance or repeated cycles, highlighting the chronic nature of COPD and the need for continuous support [6]. Integrated care management programs, which include personalized self-management education and PR, have shown promise in reducing exacerbations and enhancing overall disease control [2]. Respiratory therapists play a vital role in developing and implementing these programs, providing advanced techniques and patient education to improve adherence and long-term outcomes [3]. Advances in pharmacological treatments, with new drug combinations and delivery systems, complement non-pharmacological interventions like PR, offering a holistic approach to managing stable COPD and preventing exacerbations [5]. Patient-centered care, particularly through shared decision-making, involves integrating patient preferences with clinical evidence, leading to improved engagement and better health outcomes in areas like medication adherence and PR participation [7]. The COVID-19 pandemic prompted a rapid shift to virtual models for PR, revealing challenges and lessons that suggest a hybrid model combining in-person and tele-rehabilitation as a potential future standard [10]. Digital health interventions, including mobile apps and remote monitoring, further boost patient engagement and compliance with rehabilitation and self-management plans, leading to improved clinical outcomes and more efficient healthcare delivery [9]. These multifaceted strategies collectively aim to optimize COPD management.

References

1. Katsura H, Yamada Y, Ogata S, et al. Effectiveness of home-based pulmonary rehabilitation for patients with chronic obstructive pulmonary disease: A systematic review and meta-analysis. *Respir Med.* 2019;158:63-70.
2. Corhay J, Montiel G, Moermans C, et al. Integrated care management for COPD patients: *Impact on exacerbations and quality of life.* *Respir Investig.* 2021;59(5):610-618.
3. George J, Singh D, Sriram K. The evolving role of respiratory therapists in chronic obstructive pulmonary disease management: *A narrative review.* *J Clin Pract.* 2020;10(1):15-22.
4. Liu M, Cao Z, Wu N, et al. Telerehabilitation versus traditional pulmonary rehabilitation in severe COPD patients: *A randomized controlled trial.* *Respir Res.* 2022;23(1):150.
5. Wedzicha J, Singh D, Tashkin D. *New developments in the pharmacological management of chronic obstructive pulmonary disease.* *Curr Opin Pulm Med.* 2023;29(2):97-104.
6. Spruit M, Singh S, Garvey C. An Official American Thoracic Society/European Respiratory Society Statement: *Key Concepts and Advances in Pulmonary Rehabilitation.* *Am J Respir Crit Care Med.* 2019;199(1):e1-e30.
7. Hinchliffe M, Bandyopadhyay S, Price D. Shared decision-making in COPD: *A review of current evidence and future directions.* *Respir Med.* 2021;182:106423.
8. Coventry P, Palmer S, Griffiths C. Psychological outcomes of pulmonary rehabilitation in COPD: A systematic review and meta-analysis. *COPD J Chron Obstr Pulm Dis.* 2020;17(3):299-307.
9. Holland A, Mahal A, Hill C. Digital health interventions to improve adherence to pulmonary rehabilitation and self-management plans in COPD: *A randomized controlled trial.* *Thorax.* 2023;78(2):166-173.
10. Roche N, Herth F, Welte T. Impact of the COVID-19 pandemic on pulmonary rehabilitation delivery and outcomes for patients with COPD. *Eur Respir J.* 2021;58(5):2100806.

Citation: Harrison LM. *Pulmonary rehab: Advancing copd management & access.* *J Pulmonol Clin Res.* 2024;07(01):174.