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# Effect of Nordic Walking on Physical Activity among COPD Individuals: A Narrative Review

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## ABSTRACT

Chronic Obstructive Pulmonary Disease (COPD) is a progressive respiratory disorder that reduces physical capacity and significantly affects quality of life. As COPD progresses, patients often restrict their physical activities, leading to a decrease in endurance and persistent breathlessness. However, exercise and physical activity play an essential role in managing COPD by improving exercise capacity, endurance, decrease dyspena and overall well-being. Nordic walking, a low-impact aerobic exercise performed using two specially designed poles, has gained recognition for its potential benefits in COPD rehabilitation. By engaging both the upper and lower limbs, this exercise helps improve endurance, peak oxygen consumption ($VO_2$ max), and the ability to perform daily physical activities. This narrative review explored the effects of Nordic walking on exercise capacity and rehabilitation outcomes in individuals with COPD. A systematic search of Scopus, PubMed, and Ovid databases was conducted for studies published between 2010 and 2025, focusing on Randomized Controlled Trials involving COPD patients. Nordic walking interventions were included, while studies involving Myocardial Infarction, Gait Disorders, Cognitive Disorders, or Cardiac Arrhythmias were excluded. Boolean queries were used with keywords such as “COPD,” “Chronic Obstructive Pulmonary Disease,” “Chronic Lung Disease,” “Nordic Walking,” and “Pole Walking.” A total of 134 articles were identified, and after removing duplicates, 91 articles were screened. Based on titles and abstracts, 86 studies were excluded, leaving 7 full-text articles for review. Evidences suggests that Nordic walking is a feasible and effective intervention for COPD patients, enhancing their physical fitness and overall quality of life. It provides a safe and structured way to increase physical activity, making it an excellent option for pulmonary rehabilitation programs. Dyspnoea was recorded by modified Borg scale and exercise capacity by 6-minute walk test, treadmill. In conclusion, Nordic walking proved to be a safe and effective exercise intervention for individuals with COPD. It improved physical activity levels, exercise tolerance, and overall rehabilitation outcomes. By engaging both the upper and lower limbs, Nordic walking provided a comprehensive approach to enhancing functional capacity and quality of life in individuals with COPD, making it a valuable addition to pulmonary rehabilitation programs.

**Keywords:** Chronic lung disease, Physical therapy, Pole walking.