

Methods of Grading Exercise-Induced Exertion Rates Following Musculoskeletal Rehabilitation in Adults: A Rapid Review

Poornima S¹, Antony Leo Aseer P², Soundararajan K³

¹Undergraduate student, ²Principal and Professor, ³Assistant Professor, Faculty of Physiotherapy, Sri Ramachandra Institute of Higher Education and Research.

Email Id: soundararajan.k@sriramachandra.edu.in

Abstract

Introduction: Musculoskeletal conditions are common among adults and lead to pain, reduced functional activity, and impaired quality of life. Exercises are commonly recommended in the rehabilitation and management of these conditions. This rapid review aims to map and evaluate the existing tools and scales used to measure exertion rates in adults post-musculoskeletal rehabilitation, providing insights into their application, strength, and limitations.

Methods: Literature Search: We systematically searched electronic databases (PubMed, EMBASE, Scopus, and the Cochrane Library) from inception to April 2024.

Eligibility Criteria: Studies that measured exertion rates during exercise intervention in adults following musculoskeletal rehabilitation were included.

Results: The type of exercise prescription varied widely, including aerobic, resistance, and flexibility exercises. The exercise rate was predominantly measured using a subjective scale, such as the Borg Rating of Perceived Exertion (RPE), and objective measures, such as heart rate and VO₂ max. Each method demonstrated specific strengths and limitations. Subjective tools were praised for their simplicity and patient-centred approach, while objective measures provided more precise and quantifiable data.

Conclusion: There is considerable variability in exercise-induced exertion rates among adults, which signifies the need for personalised exercise prescriptions. This rapid review emphasises the value of subjective and objective tools, advocating for their combined use to enhance accuracy. While usual methods like the Borg RPE scale remain foundational, integrating modern wearable technology holds promise for more precise monitoring. Further work is needed to determine whether there is a relationship between exertion rates and clinical outcomes to optimise exercise interventions for this population.