

# Bridging the Knowledge Gap Exercise Science in Rheumatologic Rehabilitation

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## DESCRIPTION

In recent years, exercise has emerged as a cornerstone of comprehensive care for individuals with Rheumatic and Musculoskeletal Diseases (RMDs). Evidence consistently highlights its effectiveness in reducing inflammation, alleviating pain, improving joint function and enhancing quality of life. The European Alliance of Associations for Rheumatology (EULAR) has provided clear and evidence-based guidelines on the prescription and implementation of exercise in clinical care. However, the translation of these recommendations into everyday clinical practice depends heavily on the knowledge and competence of the healthcare professionals who deliver or guide therapeutic exercise most notably, physical therapists and professionals with degrees in physical education.

In this context, the recent cross-sectional study assessing the knowledge of these two professional groups in Brazil paints a sobering picture. Despite their frontline role in prescribing and delivering exercise therapy, both physical therapists and physical education graduates demonstrated a significant knowledge gap regarding EULAR guidelines for managing RMDs through physical activity. With 116 professionals surveyed and a notable proportion failing to answer EULAR-based questions correctly ( $p < 0.001$ ), the study reveals a large effect size ( $w \geq 0.5$ ), pointing not just to a statistically significant trend but to a clinically alarming shortfall in training and preparedness.

This knowledge deficit is not merely academic; it has tangible consequences for patient care. When professionals lack a strong evidence-based foundation for exercise prescription, patients risk receiving suboptimal or even contraindicated interventions. In RMDs where individualized, condition-specific and progression-aware exercise is vital poorly designed programs may lead to exacerbation of symptoms, increased dropout rates, or delays in functional recovery. Moreover, the psychological impact on patients who do not experience the expected benefits of exercise can further diminish adherence and trust in non-pharmacological therapies.

Why does such a gap exist, especially among professionals whose training is presumed to include therapeutic exercise as a core

component. One possible explanation lies in the fragmentation of education and practice across disciplines. In Brazil, as in many countries, physical education programs may focus more on general fitness, athletic training, or sports performance, while physical therapy curricula may not uniformly incorporate rheumatology-specific content or the latest evidence-based guidelines. Furthermore, the dissemination of EULAR recommendations may be inconsistent, particularly in non-English-speaking countries or among non-medical allied health professionals.

This brings into sharp focus the need for more interdisciplinary education and collaboration in the management of rheumatic diseases. Rheumatologists, although often the primary diagnosticians and prescribers, typically defer exercise interventions to allied health professionals. However, if these professionals are underprepared to carry out evidence-based rehabilitation, a crucial component of patient care is undermined. Bridging this gap requires systemic changes in how healthcare professionals are trained and how guidelines like those from EULAR are integrated into educational and clinical practice settings.

## Need for regional adaptation of international guidelines

Another issue is the limited accessibility and contextual adaptation of international guidelines. Although EULAR has made commendable efforts to standardize best practices, guidelines developed in Europe or North America may not fully address the regional realities of healthcare infrastructure, education, or cultural perceptions in Latin America. Therefore, local adaptation, translation and targeted dissemination of guidelines are necessary. Initiatives like workshops, online modules and continuing education programs specifically tailored for Latin American professionals could significantly improve awareness and application of evidence-based exercise strategies.

This study also invites reflection on the structure and expectations of continuing professional development. In a healthcare landscape where medical knowledge evolves rapidly, reliance on initial training alone is insufficient. Continuing

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**Received:** 21-Jan-2025, Manuscript No. RCR-25- 37687; **Editor assigned:** 23-Jan-2025, PreQC No. RCR-25- 37687 (PQ); **Reviewed:** 6-Feb-2025, QC No. RCR-25- 37687; **Revised:** 13-Feb-2025, Manuscript No. RCR-25- 37687 (R); **Published:** 20-Feb-2025, DOI: 10.35841/2161-1149.24.15.440

**Citation:** Carlos B (2025). Bridging the Knowledge Gap Exercise Science in Rheumatologic Rehabilitation. *Rheumatology (Sunnyvale)*. 15: 440.

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education must be mandated, monitored and resourced particularly in areas as dynamic and interdisciplinary as exercise therapy for chronic disease. Professional societies in physical therapy and sports science must take a proactive role in ensuring their members are updated on current rheumatology care standards.

Moreover, there is a pressing need to cultivate a stronger culture of collaboration between rheumatologists, physical therapists and exercise professionals. Multidisciplinary clinics and team-based care models, where roles are clearly defined and knowledge is regularly exchanged, can enhance not only patient outcomes but also mutual respect and trust among providers. Such collaboration would ensure that exercise prescriptions are not only safe and effective but also personalized to the complex needs of patients with RMDs.

## CONCLUSION

In conclusion, the deficit in knowledge about therapeutic exercise among Brazilian physical therapists and physical education professionals reflects a broader need for systemic change in health education, interdisciplinary collaboration and local adaptation of global guidelines. As the burden of rheumatic diseases continues to grow, so too must our commitment to preparing all healthcare professionals to meet that challenge with evidence-based, patient-centred interventions. Only through such comprehensive efforts can we ensure that exercise is not just recommended but truly therapeutic.