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Promoting Strength-Based Rehabilitation Programs for Optimal Pain and Injury Management and Recovery: A Professional Perspective

Editorial

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Editorial

A frequent and prevalent issue in pain and injury rehabilitation settings is the under-dosing and underutilization of exercise- and strength-based intervention methods designed for long-term improvements. Currently, rehabilitation settings rely on non-evidence-based, passive modalities, low dosage of exercise, and minimal use of progressive overload principles. Moreover, these therapeutic rehabilitation settings neglect the evidence regarding the benefit of strength interventions on populations spanning from: high performing athletes[1], older women with sarcopenia[2], individuals with chronic low back pain[3], and individuals with cerebral palsy[4].

Despite the mounting evidence detailing the positive impact of programs aimed to improve muscular strength for various pathological conditions and injuries in the rehabilitation setting, there lacks a clear understanding of appropriate dose-response relationships, detailed program designs, and strength protocols specifically designed to help clinicians improve injury and pain management for their patients. Furthermore, a major issue is the distinction between "strength training" and "standard physical therapy" as separate interventions. This distinction emphasizes the gross underrepresentation that muscular strength should be the foundation in which a physical therapy program is built. Currently, many program and clinicians aim to implement common physical therapy interventions such as stretching, balance and isolated strengthening coupled with the "standard" practice of physical therapy providing a lower intensity and lower load intervention that results in suboptimal outcomes when compared to progressive strength programs[5,6].

Future studies should seek to understand how clinicians and practitioners could improve strength program designs across the spectrum of physical abilities, optimal load management, and progressive overload for all patients. Additionally, future guidelines should aim to determine the appropriate dose-response relationship of aerobic exercise and muscular strength exercises for specific conditions, injuries, and episodes of pain across all populations.

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