Utilizing the Biopsychosocial Approach for Understanding and Treating Pain

Editorial

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Abstract

The biomedical model's narrow focus on structural causes is inadequate for chronic pain, which involves complex, multifactorial issues beyond tissue damage. Chronic pain affects nearly 21% of U.S. adults, underscoring the urgent need for a deeper understanding of pain among rehabilitation clinicians. The biopsychosocial (BPS) model broadens this perspective by considering psychological and social factors, such as emotional distress and lifestyle impacts, alongside physical aspects. Despite the effectiveness of combining exercise with BPS education in treating chronic pain, current educational and clinical practices have yet to fully embrace this comprehensive approach. Future research should prioritize incorporating BPS principles into healthcare education and clinical guidelines to improve treatment outcomes and address the significant effects of chronic pain on individuals' quality of life, healthcare engagement, and daily activities.

Key Words: Therapy, Physical Fitness, Strength

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Introduction

The rigid biomedical model of pain, which asserts that all symptoms and pain have a structural, tissue pathology explanation[1], does not reflect the multifactorial nature of pain. While this model may provide a suitable explanation for acute injuries with an obvious mechanism of injury, it does not account for the complexities of chronic pain that has persisted far beyond tissue healing time frames and therefore does *not* correlate with a structural or tissue pathology explanation. In 2021 alone, the incidence of chronic pain among adults in the United States was just shy of 21%, accounting for over 51 million individuals[2]. With these staggering numbers, it is imperative that rehabilitation clinicians understand the complex nature of pain that goes beyond the surface-level approach of the biomedical model.

The biopsychosocial (BPS) approach to pain disseminates the idea that all pain is due to tissue damage, and proportional to degree of proposed tissue damage, and sheds light on the complexity of chronic musculoskeletal pain, which is defined as pain that lasts longer than 3 months[3]. The BPS model of pain instead also addresses psychological and social contributions to pain: catastrophizing, fear avoidance, self-

efficacy, and nervous system sensitization[4], rather than only emphasizing tissue pathology. More modern approaches to managing chronic pain suggest exercise and BPS education as the optimal treatment[5], however, school curriculums and clinical practice guidelines have not caught up to this more holistic and human-centered approach.

Future studies should focus on how to integrate BPS education into exercise science, physical therapy, athletic training, chiropractic, and physical medicine school programs, as well as into clinical practice guidelines for best standards of care. Additionally, future studies should analyze the impacts of quality of life, medical visits, and activity levels in individuals who experience chronic pain who undergo a BPS-focused rehabilitation program.

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