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## MINI REVIEW

### Factors Hindering the Transformation from a Biomedical to a Biopsychosocial Assessment Model in Pain Management Physiotherapy Practice

Thangamani Ramalingam Alagappan<sup>1,2,\*</sup>, Sudipta Roy<sup>3</sup>, Sudipta Roy<sup>4</sup>, Vikas Patel<sup>5</sup>

<sup>1</sup>PhD Scholar, PP Savani University, Kosamba, 394125, Gujarat, India

<sup>2</sup>Lecturer in Physiotherapy, The Sarvajanic College of Physiotherapy, Rampura, Surat, 395003, Gujarat, India

<sup>3</sup>Adjunct Professor, Savani University, Gujarat

<sup>4</sup>Spinex International Physiotherapy Centre, Surat, Gujarat

<sup>5</sup>Spine & Joint Clinic, Surat, Gujarat

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##### \* Corresponding author.

Thangamani Ramalingam Alagappan

[atramalingam@gmail.com](mailto:atramalingam@gmail.com)

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#### ABSTRACT

Managing chronic pain requires the incorporation of physiotherapy as an essential component. The biopsychosocial model of pain offers a more comprehensive framework for understanding illness, which necessitates a transition from a biomedical to a bio-psycho-social assessment model in pain management. However, therapists are often unaware of these recommendations when it comes to chronic pain, and instead, they tend to stick to their old beliefs about pathomechanics without acknowledging contemporary pathophysiological understandings of chronic pain. To enhance this transition, a holistic approach is required, which includes improved pain education for healthcare providers, a better understanding of pain mechanisms, more comprehensive pain evaluations, and the incorporation of psychological components in assessment and treatment plans. By adopting a biopsychosocial approach, healthcare providers in physiotherapy can enhance the effectiveness of pain management and improve the quality of life for patients with chronic pain.

**Keywords:** Biopsychosocial model; Pain management; Physiotherapy; Health care; Chronic pain

## 1 INTRODUCTION

Physiotherapy is an essential part of managing chronic pain and evidence shows that physiotherapists use various skills to improve the quality of life for people with chronic pain. However, some patients and clinicians still expect a complete cure assuming that physiotherapy will involve some unique hands-on treatment, which may not be necessary or appropriate. Some patients may feel apprehensive about physiotherapy treatment due to past experiences.<sup>1</sup> A biomedical SOAP (subjective-objective-analysis-planning) notes format for assessment of chronic musculoskeletal pain conditions is commonly used in physiotherapy primary care practice. However, the recent international classification of disease systems warrants a multidimensional, multifactorial and biopsychosocial assessment and management principles to deal with it.<sup>2-4</sup> So, this editorial aims to explore the factors creating a gap in the transformation from a biomedical to a biopsychosocial assessment model in pain management

physiotherapy practice and intends to propose a promising roadmap for future clinical practice.

## 2 LACK OF HOLISTIC APPROACH

The traditional biomedical model has its limitations. As an alternative, the biopsychosocial model offers a more comprehensive framework for understanding and addressing illness. This model considers the individual, their body, and their environment as interconnected components, taking into account the role of stressful life events and environmental challenges in influencing vulnerability to illness. It also emphasizes the importance of psychological well-being and the need for a holistic approach in healthcare. Despite the growing support for the biopsychosocial model, transitioning from the biomedical to this model remains a challenge in medicine<sup>5</sup>

### 3 BIOMEDICAL-DOMINATED CLINICAL TRAINING

It is worth noting that while the current guidelines promote care using the biopsychosocial model, the biomedical constructs still dominate clinician training. It is unclear to what extent health science students comprehend the psychosocial determinants of pain. However, offering dedicated pain education can potentially enhance the understanding of pain, leading to more appropriate care in line with the guidelines.<sup>6</sup>

### 4 LESS UNDERSTOOD PAIN MECHANISMS

The influence of psychological and social factors on a person's well-being has led to an increased interest in physician services and physiotherapy evaluation. A more systematic approach to patient care is now being implemented, which involves determining the current pain mechanism - whether it's predominantly nociceptive, neuropathic, or non-neuropathic central sensitisation pain - as well as identifying the underlying pain mechanism. The biopsychosocial model of pain highlights the relationship between biological, psychological, and social factors. While it's normal to experience distress in response to pain, it can negatively impact one's functioning, well-being, and quality of life. Therefore, it's crucial to include distress and disability screening in all pain assessments, as it can significantly impact effective pain management.<sup>7,8</sup>

#### 4.1 Incomplete pain evaluation

Assessing a patient's psychological state is crucial when planning treatments for pain management. Incorporating a psychological component in the treatment plan can enhance the effectiveness of medical care, and potentially prevent the worsening of the pain disorder.<sup>9</sup>

#### 4.2 Insufficient pain education or knowledge

It is a well-known fact that pain is a worldwide issue. However, healthcare providers often lack the necessary knowledge to effectively manage pain. To address this issue, a comprehensive pain education program should be implemented. Such a program should include practical activities and assessments to ensure that learning is effective and an intended specific learning outcome statement can guide the design of instructional materials. Nonetheless, more research is necessary to identify the most effective strategies and techniques for different groups of patients and professionals. Furthermore, building on the theoretical foundation of pain education and evaluation can enhance their effectiveness.<sup>10-12</sup>

### 4.3 Unaware of Current assessment and treatment guidelines

Recent pain management literature recommends a combination of physical and psychological approaches, such as graded exercise, patient education, patient empowerment, and cognitive-behavioral therapy. However, some therapists are unaware of these recommendations when it comes to chronic pain, and instead, they stick to their old beliefs about patho-mechanics without acknowledging contemporary pathophysiological understandings. Therefore, it is crucial to shift from a formal biomedical assessment to a biopsychosocial-based pain assessment.<sup>13</sup>

### 5 CONCLUSION

Physiotherapy plays a crucial role in managing chronic pain, but there is a need to transition from a biomedical to a biopsychosocial assessment model. This transition requires a holistic approach, improved pain education for healthcare providers, an understanding of pain mechanisms, more comprehensive pain evaluations and the incorporation of psychological components in assessment and treatment plans. By adopting a biopsychosocial approach, Physiotherapy healthcare providers can enhance the effectiveness of pain management and improve the quality of life for patients with chronic pain.

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