

Personalized Multimodal Treatments to Improve Chronic Pain Management

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Chronic pain, defined as pain lasting more than three months, affects approximately one in ten adults globally and poses a significant public health challenge due to its potential to cause long-term disability and its impact on quality of life. Traditional medical approaches do not address all aspects of pain management, suggesting that a multidisciplinary approach may improve patient outcomes. This literature review explored multimodal treatment approaches for managing chronic pain, focusing on studies involving diverse patient populations with different chronic pain conditions. The analysis reviewed 40 peer-reviewed articles focused on examining the effectiveness of both pharmacological treatments, including antiepileptic drugs and antidepressants, and non-pharmacological interventions in reducing chronic pain intensity and achieving sustained pain relief. Our analysis revealed that a few single pharmacological treatments achieved an average pain reduction of 50% in select patients. Similarly, non-pharmacological interventions resulted in only minimal pain reduction for most patients. However, we determined that the most significant improvements were reported when pharmacological treatments were combined with non-pharmacological approaches, resulting in significant reductions in patients' pain, tension, discomfort, distress, and mood disturbances, with an additional decrease of at least 25% attributed to massage therapy, compared to their initial assessments. Together, these results suggest that pharmacological treatments often fail to provide sustained relief by themselves, and thus a patient-centered approach should integrate personalized multimodal treatment plans. By tailoring care to the individual's needs, this approach not only enhances patient outcomes and improves quality of life, but also contributes to reducing the societal burden from chronic pain.