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A Case Study on the Role of Deep Transverse Friction and Splint Therapy in Managing Temporomandibular Joint Dysfunction

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ABSTRACT

Temporomandibular Joint Dysfunction (TMD) is a common musculoskeletal disorder involving pain, limited jaw movement, and functional impairment affecting the head and neck region. It often presents with symptoms such as headache, muscle twitching, ear fullness, or tinnitus. Physiotherapeutic management plays a vital role in addressing these symptoms, with Deep Transverse Friction (DTF) massage and splint therapy are effective modalities for pain reduction and functional restoration. In this case study, a 28-year-old individual presented with pain during mouth opening and chewing, accompanied by reduced mandibular range of motion persisting for over three months. Following a diagnosis of TMD by a dentist, the patient underwent a combined intervention of DTF applied to the masticatory muscles along with the use of a customised splint. The outcome measures included the Numerical Pain Rating Scale (NPRS) for pain intensity, mandibular range of motion assessment using a vernier caliper, the Oral Impact Profile Questionnaire, and the Jaw Functional Limitation Scale (JFLS). After the intervention, the patient demonstrated a marked reduction in pain, increased mandibular mobility, and improved quality of life and functional performance. The combined use of DTF and splint therapy exhibited a synergistic effect in enhancing joint function and relieving discomfort. This case emphasises the significance of integrating manual therapy with splint therapy in the conservative management of the TMD. The positive outcomes observed encourage further research through larger clinical trials to substantiate these results and establish evidence-based physiotherapeutic protocols for TMD management.

Keywords: Range of motion, Pain management, Physiotherapy

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