



## **Multimodal therapy through telerehabilitation decreases pain and increases mandibular range of motion in a patient with temporomandibular dysfunction: a case report**

### **Terapia multimodal por meio de telerreabilitação diminui a dor e aumenta a amplitude mandibular em paciente com disfunção temporomandibular: relato de caso**

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#### **INTRODUCTION**

Temporomandibular dysfunction (TMD) is characterized by a set of symptoms: pain, decreased movement and joint noise. It is multifactorial and may be related to biopsychosocial aspects<sup>1</sup>. The multimodal approach has been used in physiotherapy for the treatment of TMD<sup>2</sup>. Physiotherapy and technology through telerehabilitation contribute to quality care reaching the patient, in the impossibility of face-to-face care<sup>3</sup>. The objective is to verify the effect of manual therapy associated with telerehabilitation exercises on pain intensity, mandibular movement and severity in individuals with TMD.

#### **METHODOLOGY**

Report of 1 case whose patient was part of a pilot study for a randomized clinical trial. (CAAE 38884020.8.0000.5511 Clinical Trials registration NCT05006963);

The patient underwent an initial evaluation with Fonseca Anamnesis Index (FIA), Diagnostic Criteria for Temporomandibular Disorders (DC/TMD) and the Numerical Pain Scale (NPS).

After diagnosis, she was referred for treatment by telerehabilitation. Patient DCS, female, 34 years old with diagnosis of bilateral myalgia, left arthralgia, headache attributed to TMD and disc displacement with reduction to the left, received treatment by telerehabilitation.

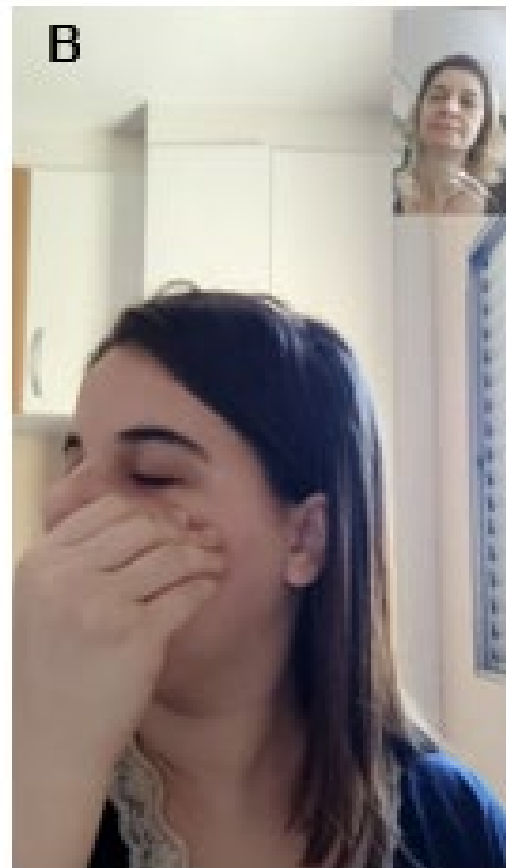
The patient received 24 visits, twice a week for 40 minutes each, with multimodal techniques for TMD. Treatment protocol (Table 1).



Table 1 - Intervention protocol - Manual therapy associated with telerehabilitation exercises

<b>Intervention</b>	Treatment for 12 weeks, with 2 sessions each week of telerehabilitation physiotherapy, totaling 24 sessions. Each lasting 30 minutes.
<b>Manual therapy techniques</b>	Extra-oral self-massage and intra-oral self-massage on the masticatory muscles (3 minutes each side); cranio-cervical myofascial self-release (10 minutes). Isometric cervical exercises: extension, flexion, right tilt, left tilt, 6 seconds. Cervical exercises (extension, flexion, rotation and inclination, 10 repetitions each movement).
<b>Therapeutic exercises</b>	Mouth opening with the tongue on the palate (3 sets of 10 repetitions); proprioceptive lateralization and protrusion exercises (6 repetitions).
<b>Additional exercises</b>	Exercises with combinations of opening and sideways movements.
<b>Educational guidelines</b>	Correct tongue and jaw posture (use of post-its); reduction of parafunctional habits; sleep hygiene.

Source: The Authors.



## RESULTS AND DISCUSSION

After reassessment, patient DCS went from pain intensity 8 to zero on NDT, i.e., a clinically important decrease of more than 30%; on final evaluation of DC/TMD disc displacement remained, pain-free mouth opening went from 51 mm to 59 mm after treatment. The IAF had scored 20 (mild severity) and after treatment it went to zero.<sup>4,5</sup>

The highest score in the domain of self-efficacy for functionality was corroborated by a cross-sectional observational study with the participation of patients with TMD that in the domains of self-efficacy for pain control and self-efficacy for functionality the score of the individuals was considered median<sup>5</sup>. It was also described in a descriptive study that the highest score obtained among the domains of the Self-Efficacy Scale was in the Self-Efficacy and Functionality item, in which people with chronic pain had greater beliefs to be able to perform daily activities even in the presence of pain<sup>6</sup>.



## CONCLUSION/FINAL CONSIDERATIONS

Manual therapy associated with telerehabilitation exercises on pain and mandibular movement outcomes were clinically important. Therefore, telerehabilitation is a viable possibility for patients with TMD.

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