

## **ABSTRACT**

**Title:** Possibilities of physiotherapy interventions in patients with temporomandibular disorders – a systematic review.

**Objective:** The aim of the diploma thesis is based on the analysis of available literature fulfilling the selection criteria to evaluate the most effective therapeutic intervention within the competence of a physiotherapist for the predetermined evaluation parameter in patients with myogenic temporomandibular disorder.

**Methods:** This diploma thesis is processed in the form of a systematic review. A suitable literature was searched in the various a database including Scopus, PubMed, Web of Science a PEDro. Based on the criteria, a total of 390 articles were found, including 271 randomized clinical trials obtained after removal of duplicates. An abstract was screened on these selected studies to identify suitable ones. Subsequently, 97 studies remained for further investigation, of which a total of 18 studies were suitable for inclusion in this work. The first part of the thesis contains theoretical information related to this topic. In the second part of the thesis, an analysis of suitable studies is performed, followed by the results of this analysis and then a discussion, which is focused on each of the research questions.

**Results:** A total of 18 randomized controlled clinical trials met the conditions for inclusion in the experimental part of the work. The success of the physiotherapeutic intervention was always evaluated for the given evaluation parameter. The observed parameters in patients with myogenic temporomandibular disorder were assessed by pain intensity according to VAS, pressure pain threshold (PPT) of the masticatory muscles and the range of the mouth opening. The mean and median number of interventions used to achieve statistically significant and positive results were also evaluated. Regarding the intensity of pain evaluated according to VAS, the use of a low-power laser (LLLT) in the median of 9 interventions proved to be the most unsuccessful. This therapeutic intervention was also found to be most effective in increasing the PPT of the masticatory muscles in a median of 8 interventions. Due to the increase in the extent of mouth opening, the most statistically significant results were demonstrated by five uses of LLLT, now at a median of 12 interventions.

**Keywords:** temporomandibular disorder therapy, temporomandibular disorder, temporomandibular joint therapy, therapy of temporomandibular disorder, craniomandibular disorders.

