

## **BACHELOR THESIS ABSTRACT**

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**Title:** The practice of a hand functioning in patients suffering from multiple sclerosis at their home environment

### **Abstract:**

The bachelor thesis focuses on the training of hand function in patients with multiple sclerosis in the home environment. Multiple sclerosis is an autoimmune disease leading to demyelination of nerve fibres and their subsequent loss. The aim of the bachelor thesis is to compare the feasibility and effect of different types of therapies aimed at improving upper limb function in people with multiple sclerosis. The types of therapy include conventional outpatient occupational therapy intervention, outpatient intervention with elements of music therapy, telerehabilitation occupational therapy intervention, telerehabilitation intervention with elements of music therapy. The bachelor thesis contains a practical part and a theoretical part. The theoretical part describes the disease multiple sclerosis, risk factors, clinical picture, forms of the disease and treatment options. It also deals with the function of the upper limb and the possibilities of assessment, the possibilities of training hand function are mentioned. Methods of telerehabilitation and music therapy are also described. In the practical part, four patients received occupational therapy interventions once a week for six weeks. The degree of improvement in hand function was measured using the Nine-Hole Peg Test and the Modified Frenchay Scale. The data obtained were compared and the effectiveness and feasibility of each type of therapy was evaluated. The results show that the most effective intervention is conventional outpatient occupational therapy. Outpatient intervention with elements of music therapy also showed great effectiveness. The telerehabilitation form with elements of music therapy proved to be the most difficult to implement and the least effective.

**Key words:** multiple sclerosis, hand function training, occupational therapy