

ABSTRACT OF THE BACHELOR THESIS

Title: The Instrumental Stimulation of the Superficial and Deep Sensation in Upper Limb Therapy by Clients with Acquired Brain Injury

Abstract:

The bachelor thesis deals with the device SaeboStim Micro and its use within sensory therapy of the upper extremity that is experienced by people with acquired brain injury. The device uses a so called sensory electrical stimulation (without muscle contraction) that affects different dysfunctions, besides sensation.

In the theoretical part is summarized the knowledge about acquired brain injury (traumatic and nontraumatic) and its consequences, further knowledge about sensation and its impairments and the principles and possibilities of sensory assessments. In this part it is also possible to find information about rehabilitation for people with acquired brain injury and about SaeboStim Micro.

The aim of this thesis was to determine the efficiency of the SaeboStim Micro device in therapy of sensation of the upper extremity of three people with acquired brain injury in the chronic stage. The partial goal of the thesis was to map the experience with the use of SaeboStim Micro and the prevalence of this device in the Czech Republic by means of a questionnaire intended for occupational therapists.

In the practical part there are three case studies of clients whose sensation was uniformly stimulated with the use of SaeboStim Micro according to a predetermined plan. The changes in their sensitivity were detected objectively by using the standardized Nottingham Sensory Assessment tool and subjectively by the questionnaire for clients. Furthermore, the mentioned questionnaire survey was conducted.

The result of the work shows an improvement in sensitivity to different extents and in various modalities of sensation in each of the clients. The result of the questionnaire for occupational therapists is the finding that SaeboStim Micro is not a widely used and widespread device in our country yet.

The bachelor thesis summarizes the knowledge about the use of the SaeboStim Micro device in order to stimulate the upper extremity and to subsequently improve the sensation of clients suffering from acquired brain injury.

Key words: acquired brain injury, sensation, upper extremity, SaeboStim Micro, occupational therapy