Title:

Physiotherapy using rhythmic auditory stimulation in upper limb training for patients with motor disorder caused by brain damage

Abstract:

The theme of this bachelor thesis is physiotherapy using rhythmic auditory stimulation in upper limb training for patients with motor disorder caused by brain damage. The thesis consists from theoretical and practical parts. The range of problems associated with brain damage, both traumatic and stroke-induced, is briefly described in theoretical part. Fine and gross motor function of upper limb, the impact of central nervous system damage on it and possibilities of subsequent physiotherapy are also described in this part. In the last chapter of theoretical part knowledge about musical therapy, its application in neurorehabilitation and Rhythmical Auditory Stimulation method (RAS) is summarized. Practical part consists of two case reports of patients with acquired brain damage and following upper limb moving disorder. In this part the influence of RAS method during therapy is monitored. The evaluate the method's effect Five-Step Clinical Assessment by Gracies and Jebson-Taylor standard hand function test were used prior to initiation of treatment and immediately after its completion. The purpose of this thesis is summarizing and comparing knowledge about RAS method and at the same time evaluation of its effect based on achieved results of the therapy.

Key words: brain damage, traumatic brain injury, stroke, music therapy, rhythmic auditory stimulation, RAS