

## **Abstract**

**Title:** Exploitation of regular exercise based on the elements of developmental kinesiology for people suffering with back pain.

**Objectives:** The aim of my diploma thesis was observing the effect of a group motional program based on tenets of developmental kinesiology for function of the motional system of clients suffering from back pain.

**Methods:** The theoretical part of my diploma thesis was done with a method of literary recherche using technical literature, articles and studies. Experiment was chosen for the practical part, quasi in particular, which was complemented by method of qualitative research, personal case study in particular. There are two clinical casuistries paced in my thesis.

There were two following methods for collecting data during my research: kinesiology analysis focused on anamnesis, check-up by sight, check-up by touch and functional probing (dynamic check-up of spine, diagnostically testing of deep stabilizing muscles.) Another methods used in my diploma thesis were assessments of pain with a usage of visual analogy scale and semi-structured interview. Pre-tests and post-test were identical.

10 people suffering from chronic back pain in an area of cervical spine or lumbar spine (5 clients suffering from chronic back pain in an area of lumbar spine and 5 clients suffering from chronic back pain in an area of cervical spine) participated in research. Those 10 participants attended regularly group exercise based on tenets of developmental kinesiology. The researches were taking place from the beginning of January 2016 till the end of April 2016. Twelve sixty-minute long group lesson overall were hold. There were under a physiotherapist experienced with grounding in a field of developmental kinesiology.

**Results:** It was successfully confirmed that intervention of motional activity correlating with positions in early motorial development of a child has a positive effect on a function of motional system and abatement of pain for clients suffering from back pain. Participants of my studies have improved in all testing characteristics after the

intervention of motional program. All participants subjectively denoted abatement of occurrence and intensity of pain.

**Keywords:** Developmental kinesiology, Back pain, Dynamic Neuromuscular Stabilization, Deep stabilizing muscles system of the spine