

Abstract

Title: Influence of pilates method on the stabilizing system of the spine

Objectives: The main aim of this diploma thesis was to confirm or refute the claim that a six-week motion program using the pilates method positively affects the stabilizing system of the spine. The partial aims of the work were to determine whether the a six-week motion program using the pilates method had a positive effect on the posture, spinal mobility, shortened muscles and standing stabilization.

Methods: As a method of research, a case study was selected involving two adult persons (males). The motion program was preceded by an initial examination. In particular, static examination of the standing position, dynamic examination of standing position (flexion, extension, lateroflexion), examination of stabilization (Véle test, stand on 1 LL, standing on 2 scales), examinations of spinal distances (Schober's, Otto's and Čepojev's distance, lateroflexion), goniometry of rotation of thoracic and lumbar spine, examination of shortened muscles according to Janda (hip flexors, knee flexors, pectoralis major and minor, m.trapezius and paravertebral muscles) examination of postural stabilization by Kolář (extension test, trunk flexion test, diaphragm test, hip flexion test). Participants then underwent a six-week motion program using the pilates method. Once a week, they went through an individual lesson under the guidance of a pilates instructor, and then they were recommended to do the lesson four times a week themselves. The individual lesson lasted approximately 30 minutes, lessons led by the instructor lasted 1 hour. After six weeks, the final examination was performed, followed by analysis and evaluation of the results.

Results: We found out that a six-week motion program using the pilates method positively affects the stabilizing system of the spine and improves body posture. The hypothesis that a six-week motion program using the pilates method positively affects standing stabilization, spinal mobility and shortened muscles was not confirmed.

Keywords: pilates, stabilizing system of spine, DSSS, postural stabilization testing, posture, stability, spine mobility, shortened muscles.