Abstract

Title: The Turkish Get-Up with a kettlebell from the point of view of developmental kinesiology

Objectives: In the last couple of years the TGU has again entered the consciousness of the sporting public not just in the Czech Republic. Despite this there do not exist many studies that evaluate the effects of this exercise. It is a complex exercise, similar to the development line, during which one ascends from a lying down on the ground to a standing position while holding a weight. This is why I chose tests for DSS. Postural muscle function develops vigorously during the first year of life. This is why the tests chosen are ones that evaluate the quality of the manner of connection and evaluate the function of the muscle during stabilization.

The objective of this thesis is to confirm or overturn the statement that the TGU (Turkish Get-Up) positively affects the deep stabilizing system (DSS). The evaluation of data acquired will therefore provide the conclusion, whether the exercising of the TGU has a positive effect on the DSS.

Methods:

8 people (4 women and 4 men) between the ages of 22–32 years participated in the study. They participated in a 6 week programme, exercising the TGU twice a week, 10 repetitions per exercise unit. Women used a kettlebell of 4 kg weight, men used a kettlebell of 8 kg weight. The activation of DSS was evaluated before and after the commencement of the programme with a battery of tests. Six tests according to Kolář were used for the evaluation. These tests were evaluated on the 1–3 scale, with 1 point being the best result.

The thesis is empirical and theoretical in character. The introduction outlines the problematics of this exercise, its opportunities and benefits within rehabilitation, strength training and diagnostics. The objective is to describe the exercise in detail in terms of kinesiology and biomechanics, and to introduce the wider context relating to it.

The first part of the thesis deals with the theoretical approach to the history of the use of the kettlebell in sport and the history of the Turkish Get-Up (TGU) and its variations. Next are the descriptions of the principles of muscle irradiation and biomechanical
breathing match. In any work relating to this exercise and everyday practice it is important to take these principles into account. The conclusion of the first part deals with the diagnostical options of the TGU in terms of physiotherapy and the possibilities of the use of TGU in power training. Research processing of the issues was built mainly on the use of periodicals available in the Czech Republic and articles acquired in online databases in PubMed, ResearchGate and through paid access from FTVS UK in order to acquire current data. Furthermore print and electronical mono graphs, text books, periodicals from the library of FTVS UK and the National medical library were used.

In the second, descriptive and analytical section, there follows a list of individual positions from developmental kinesiology that appear in the TGU and their detailed description. Next follows a detailed description of the positions and transitions from TGU. Altogether seven positions that are identical in the ascending and descending stages, and transitions which in terms of muscle activity differ in the ascending and descending stages. It is a kinesiological analysis in terms of biomechanics and the correct execution of movement. The most common mistakes by practitioners are listed at each position as well as their causes and what they can lead to when not corrected. The conclusion is dedicated to direct comparison of positions and transitions in TGU and developmental kinesiology.

Results: It follows from the results of the test battery that the exercising of TGU has a positive effect on DSS.

Keywords: DSS, development line, postural stability