

ABSTRACT

Thesis title: The effect of kinesthetic sensation on the postural control and balance abilities of individuals with visual impairments

Objectives: Compose through the literature study appropriate balance programme for the individuals with visual impairments and measure its effect on their postural control and balance abilities.

Methods: Ten visually impaired subjects, one subject with visual and vestibular impairment and one healthy subject took part in this study. Movement intervention was held once a week for eleven weeks, consisting of balance and coordination training, exercises for decreasing muscle imbalances and increasing body awareness and relaxation ability. The Footscan system was used for measuring the effect of movement intervention on the on the postural control and balance abilities of individuals with visual impairments. The testing was done before the beginning and after the finishing of all classes of movement intervention and the results of the pretest and posttest were compared with each other.

Results: The movement intervention led to the improvement of postural control and balance abilities at five subjects from the total of nine subjects, who underwent pre and post testing. From the total of forty-eight carried out tests, the subjects noted improvement in twenty-two tests, impairment in twelve test and in remaining fourteen tests were the results gained in pretest and posttest similar. The posttest results showed marked decreasing of the sum of total travelled ways gained by all the subjects in all testing positions. The quality of the single left leg stance improved in six subjects. Seven subjects registered and filled in the questionnaire the improvement of the balance abilities.

Key words: postural control, balance, balance training, visual impairment, stabilometry, Footscan

