

The Comparison of Backward and Forward Running Program on Balance Development and Plantar Flexion Force in Pre Seniors: Healthy Approach

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Abstract : Backward running is commonly used in different sports conditioning, motor learning, and neurological purposes, and even more commonly in physical rehabilitation. The present study evaluated the effects of six weeks backward and forward running methods on balance promotion adaptation in students. 12 male and female preseniors with the age range of 45-60 years participated and were randomly classified into two groups of backward running (n: 6) and forward running (n: 6) training interventions. During six weeks, 3 sessions per week, all subjects underwent stated different models of backward and forward running training on treadmill (65-80 of HR max). Pre and post-tests were performed by force plate and electromyogram, two times before and after intervention. Data were analyzed using by T test. On the basis of obtained data, significant differences were recorded on balance and plantar flexion force in backward running (BR) and no difference for forward running (FR). It seems the training model of backward running can generate more stimulus to achieve better plantar flexion force and strengthening ankle protectors which leads to balance improvement in pre aging period. It can be recommended as an effective method to promote seniors life quality especially in balance neuromuscular parameters.

Keywords : backward running, balance, plantar flexion, pre seniors

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