THE EFFECT OF 8 WEEKS SPECIFIC CORRECTIVE EXERCISE IN WATER AND LAND ON ANGLE OF KYPHOSIS AND SOME PULMONARY INDICES IN KYPHOTIC BOY STUDENTS

Abstract
The purpose of this study was to compare the effect of 8 weeks specific corrective exercise in water and land on the angle of kyphosis and some pulmonary indices in kyphotic students. Thirty males with increased normal thoracic kyphosis (kyphosis ≥40 degrees, 20.70 ±0.705 years old, height 175.5 ±6.19 cm, weight 64.19 ±8.23 kg) were selected and randomly divided in two groups(n=15): group(1) (corrective exercise in water) and group(2) (corrective exercise in land). The angle of kyphosis measured by using a flexible ruler as a non-invasive and reliable method. Pulmonary indices such as: force vital capacity (FVC), forced expiratory volume in one second (FEV1) and maximal voluntary ventilation (MVV) measured by digital spirometer. The repeated measure test was used to compare the differences between the pre and post-test in both groups. All statistical analyses were performed using SPSS statistical software version 18 and the significance level was set on 0.05.In land group and in water group the degree of kyphosis, FVC, FEV1 and MVV improved significantly (p≤0.05). Finally, between two groups were not observed any significant difference in degree of kyphosis and pulmonary indices (FVC, FEV1, MVV) (p≥0.05).According to the results; we can suggest the performance of both corrective exercises in land and water for kyphotic persons.

Key words: kyphosis, aquatic exercise therapy, spirometry, corrective exercise