



Comparison of basic skills training'' corrective exercises and combined exercises on the rate of kyphosis and balance of 9–13-year-old female students in Kahrizak

Poster Presentation

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Abstract

Introduction: The spine, as the axis of the body, has special structural features to meet conflicting mechanical needs such as stability and mobility; Among these features are arches that play a very important role in the strength of the spine. These arches not only increase the absorption of pressure by the spine but also contribute to the function of the muscles associated with the spine. Equilibrium, as one of the most controversial concepts in the sensorimotor system, examines the complex interrelationships between sensory data input and motor responses needed to maintain or alter posture. The present study compared the training of basic skills training, corrective exercises, and combined exercises on the rate of kyphosis and balance of 9-13-year-old female students in Kahrizak region.

Methods: The research method was quasi-experimental with pre-test, post-test, and control groups.

The statistical population of this study includes all girls with kyphosis anomalies in schools in Kahrizak region, 60 of whom were selected voluntarily and divided into four groups, including three experimental groups and one control group. The experimental groups performed basic exercises, corrective movements, and combined exercises according to the prescribed protocol for eight weeks (three sessions per week, each session 45 minutes), and the control group performed daily activities during the research. Data collection tools, including tests Static test equilibrium (stork), dynamic equilibrium (star), kyphosis angle measurement, were used using a kyphometer ruler, and the training protocol of the groups, including spark basic exercises and corrective movements based on Kendall theory, was used. ANOVA and ANCOVA analysis of covariance and Bonferroni discriminant mean were used for data analysis.

Results: The results of Bonferroni analysis showed that after the post-test, a significant difference was observed in the mean amount of kyphosis anomaly angle, static and dynamic balance in the experimental group with the control group, so that the kyphosis angle decreased and the amount increased. Static and dynamic balance was higher in the experimental group than in the control group.

Conclusion: In general, eight weeks of basic exercises, corrective movements, and combined exercises can effectively improve and reduce the kyphosis angle and increase the balance of girls with abnormalities.

Keywords

Basic Skills; Corrective Movements; Combined Exercises; Kyphosis Abnormality; Balance

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