

Strength development in higher education students by means of basketball instruction

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Abstract

Background. After the puberty period, the development of strength becomes more important, integrated in the total developing system of other qualities. Force, together with explosive strength and endurance, can be improved with a high rate of development, reaching the maximum possibilities around 25-30 years old.

Objectives. We wanted to find out how much the selected methods specific to basketball practiced by students influence the motor quality, given the fact that this game is a good way to spend time, being categorized as a relaxing and social pastime, full of fun.

Methods. The experiment involved a young group of 20 male subjects, who practice basketball. They were given some initial tests and then final ones, after the application of the instruction program, with the purpose of improving the motor qualities. The tests used were as following: standing long jump, abdominals, push-ups, body extensions and “hang-on maintaining”. The statistic calculations were performed using Microsoft Excel.

Results. The strength parameter in muscular groups tested showed significant progress; an increase occurred of abdominal force with an average of 2.45 reps, the muscle power of the inferior limbs with a 7.65 cm average; for the superior limbs, the average increased with 4.30 reps for the push-ups and 4.75 seconds for the “hang-on maintaining”. Basically, the operational structures proved their efficiency interrelated with the particularities of the motor qualities developing at this age

Conclusions. Comparing the results of the initial and final test a big difference can be found when taking into consideration the indicator of explosive force tested by the long jump and also the force indicator of the arms extensor muscles, as a result of the programme that has been followed where medicinal balls were used.

Keywords: strength, operational structures, basketball instructional content, basketball game