

EFFECTIVENESS OF PLYOMETRIC TYPE STRENGTH TRAINING ON STRENGTH AND POWER PERFORMANCE OF CHILDREN UNDER AGE OF 10 TO 12 YEARS

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The form of exercise with rapid and repeated stretching and contracting of muscles may distinguish as plyometric. Plyometric exercises are often used to improve leg power and strength performance in adult population, but in children, there was limited information regarding plyometric exercises and that type of researches. The purpose of this study was to examine the effectiveness of plyometric type strength training on strength and power performance of children under age of 10 to 12 years. Forty students aged 10-12 years were randomly selected and divided into two groups (20 in each): Treatment Group (TG) and Control Group (CG). Study was conducted by using two sample pre-post-pre experimental research design. TG trained 2 days per week during 8 weeks by using plyometric exercises

including jumping, skipping and hurdling. Strength and power of the sample was assessed by using the tests of Vertical Jump (VJ), Standing Long Jump (SLJ), Medicine Ball Throw (MBT), 1RM Leg Extension (LE), and 1RM Shoulder Press (SP) before (Pre-Test) and after (Post-Test) the action plan. According to the analysed data, VJ ($p \leq 0.000$), SLJ ($p \leq 0.000$), MBT ($p \leq 0.002$), LE ($p \leq 0.000$), SP ($p \leq 0.000$) and p value was $p \leq 0.05$ in all tests. It revealed that there was a significant difference between pre-test and post-test results in TG. Hence, it was concluded that plyometric type strength training effected on the strength and power performance of children under age of 10 to 12 years.

Keywords: Strength, Power, Plyometric