

Effect of Plyometric Program on Lower Body Explosive Strength of Kabaddi Players

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Abstract:

The aim of this study was to see the effects plyometric training program on the lower body explosive strength of Kabaddi players, plyometric program practice on explosive strength lower body explosive factor development of Kabaddi players. 10 male Kabaddi players, age below 17 years, were selected from purposive sample technique and used squat jump (SJ), countermovement jump (CMJ) & depth jump (DJ), Pre-test after the 6-week plyometric training program experimental group (EG; n = 10) the EG performed 4 sessions per week of plyometric training program. The EG significantly improved in the SJ, CMJ, & DJ. Our results support the practice of plyometric training to improve the lower body explosive strength of Kabaddi players.

Keywords: Kabaddi players, plyometric training, Squat jump, Countermovement jump and Depth jump.

Introduction:

In Kabaddi game in the playing situation players the ability to generate maximal strength levels in the shortest period of time has been considered as essential to obtain high sport performance levels. Moreover, strength training is part of Kabaddi preseason programs with a background of related benefits that improve sport performance, reduce injury rate, and provide higher motivation levels for the players. Two methods, resistance and plyometric training, are usually referred to in the literature as improving the most powerful strength characteristics explosive strength in Kabaddi players. Several studies have demonstrated the positive effects that result from the application of these methods, reporting higher increases in the explosive strength indicators. Conversely,

In this study, we implemented the term, that is, the athletes performed plyometric exercise sets on the ground, following the resistance training sets in the weight room. The organizational characteristic of this methodology enables the researcher to easily supervise weight and plyometric

training in a single workout on the same day. Thus, given the lack of literature on the effects of complex training in Kabaddi, the aims of this study were to understand how young Kabaddi players respond to a complex training routine and determine the changes induced by this kind of training on explosive strength indicators.

Material and Method

The purpose of this study to examine the effect of plyometric training program on lower body explosive strength of Kabaddi players. In this study experimental research method 10 male Kabaddi players were selected as sample for the study. The subjects were selected through purposive sampling to the experimental group & subjects regularly doing Kabaddi game practice in the Raj Kabaddi club. Subjects were conducted pre-test of Squat and Jump (cm), Countermovement Jump (cm) & Depth Jump after test implemented six week plyometric training program for lower body explosive strength, after completed program post test conducted This procedure for the assessment of test general warm-up that consisted of running, jogging, and stretching. Which was assessed after two trials with a 60-second rest between trials, all the other tests were performed with 3 trials and all the correspondent mean values were considered for statistical analysis. After collected of data Kabaddi player's used statistical analysis followed the most important descriptive statistics, such as mean and standard deviation & paired sample t-test was used to determine differences between group's pre and post-test. A significance level of 0.05 was used.

Results of the study:

The results change of pre and post-test for explosive strength test performance of Kabaddi players and the results presented in Table no-1 shown Squat jump, Countermovement jump & Depth jump the experimental group showed significant improvement in all the variable scores experimental group.

The groups were similar on pre-test, but significant differences were observed post-training in all the variables. effect of the studied indicators for experimental group during the six weeks plyometric training program.

Table No-1

Paired sample t-test

Test	Group	N	Pre-test	Post-test	p-value
SJ (cm)	EG	10	24.79 ± 4.2	28.01 ± 4.6	0.04
CMJ (cm)	EG	10	29.88 ± 5.9	33.02 ± 6.2	0.03
DJ (cm)	EG	10	34.71 ± 7.4	36.64 ± 8.1	0.01

Table no. 1 shows that there were 10 subjects each in Kabaddi players. The pre-post test mean in tests of squat jump (SJ), countermovement jump (CMJ) & depth jump (DJ) as experimental group pre-test mean was (24.79 ± 4.2, 29.88 ± 5.9, 34.71 ± 7.4) respectively experimental group post test mean was (28.01 ± 4.6, 33.02 ± 6.2, 36.64 ± 8.1).

Discussion

The main findings from this study were the significant increases in the height of the different jumps SJ, CMJ & DJ, which proved the plyometric training efficiency. These findings showed the effect of the training program. There is a lack of literature regarding studies on the changes in the height of Jumps in Kabaddi players submitted to plyometric training programs. However, changes in jumps in Kabaddi players have been studied following the application of plyometric training programs. In fact, such changes have been reported in Kabaddi players.

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