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Effect of resistance exercise on Kabaddi players of Hisar

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Abstract

The main purpose of this study was to see the effect of resistance exercises (Like:-up right row, push down, exercises) on strength of kabaddi players. For this study experimental design was used on ten kabaddi players of district hisar of Haryana. A three week training program was organized after taking pre-test of the players, then post-test was done for testing strength of players. For statistical analysis of the data, mean, S.D, S.E.D and t-test was applied. In this study the results were found to be significant at 0.05 level. It was found that there is a significant difference in the strength of kabaddi player before and after training.

Keywords: Up right row, push down, exercises, resistance, kabaddi

Introduction

Kabaddi is also known as the “GAME OF THE MASSES” due to its popularity, simplicity, easy to comprehend rules, and public appeal. It is an outdoor sport played on clay court, in past the game is being played on synthetic surface indoors with great success. The duration of the game is forty five minutes for MEN and JUNIOR BOYS with a five minutes in between for the teams to change sides. The duration of the game is thirty five minutes with a five minutes break in between for WOMEN, GIRLS, SUB-JUNIOR BOYS and SUB-JUNIOR GIRLS. Area of ground is 13X10 meter for men and 11X8 for women.

Related literature

Arazi and Asadi (2011) ^[1] divided 39 healthy but untrained males into four groups: one group performing 1 session of total-body resistance training (12 exercises, once a week), another group performing total-body resistance training divided into 2 sessions (6 exercises, twice a week), an upper-lower split group performing 3 sessions per week (4 exercises, three times a week), and a control group (hereafter called 1-day, 2-day, 3-day and control groups). All groups performed the same volume and number of exercises, which comprised the leg press, leg curl, leg extension, calf raise, lat pull-down, lat pull-row, bench press, pec fly, arm curl, dumbbell arm curl, triceps push-down, and dumbbell triceps extension. However, they did not observe any significant differences in strength gains between any of the training groups. The researchers did not provide numerical figures for the improvements so it is difficult to assess whether there were any non-significant changes. However, based on the charts provided it does not appear that there were any frequency-related trends.

Sparkes and Behm (2010) ^[2] to determine differences in physiological and performance measures after stable and unstable resistance training. Eighteen subjects (10 men and 8 women) resistance trained 3 days/week under either stable or unstable conditions for 8 weeks. Pre and post training measures included chest press isometric force and electromyography activity of the triceps brachii and pectorals major under stable and unstable conditions and 1-legged throwing distance, balance, countermovement jump (CMJ) and drop jump (DJ) heights. There were no significant training group effects found with any measure. There was a significant ($p < 0.0001$) 42.2% greater MVIC force and 43.2 and 33.2% greater triceps ($p = 0.003$) and pectoral ($p = 0.005$) neuromuscular efficiency with stable vs. unstable isometric chest press. It appears that instability resistance training, which reportedly uses lower forces, can increase strength and balance in previously untrained young individuals similar to training

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with more stable machines employing heavier loads.

Methodology

For the study a sample of ten male players of kabaddi of the inter-college level of Hisar district was taken. For the purpose of the study body strength was selected as a variable. Through resistance exercises the body strength was measured.

Test area

Subjects were tested on various machines in a gym.

Procedure

The researcher explained the purpose of study to the subjects the subjects were asked to show their body abilities by using the following machines Dumbbells, Smith machine, Hack squat machine, leg press machine, barbell, trap bar, cable machine, leg extension machine, leg curl machine. Some exercises were done in sitting position while other were done in laying position they were asked to lift the weight as many times as they could. They were again measured after three weeks training programme and best one was counted as subjects final score.

Scoring

The researcher measures the strength of subjects on the basis of number of times exercise done by them in a particular time.

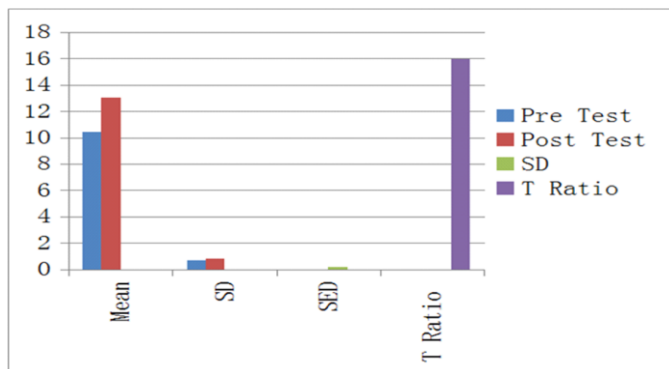
Data collection and analysis

The difference between their number of exercise was measured by the researcher personally and analysed with the help of various statistical test.

Table 1: Results related to resistance exercises ‘up right row’ on kabaddi players in Hisar district

Resistance Exercises	Pre-test		Post-test		S.E.D	T-ratio
	mean	S.D.	Mean	S.D.		
Dead-lift	10.4	0.699	13	0.816	0.16330	15.922

Source:- Primary Survey



Significant at 0.05 level of confidence

Fig 1: Results related to resistance exercises on kabaddi players in Hisar district

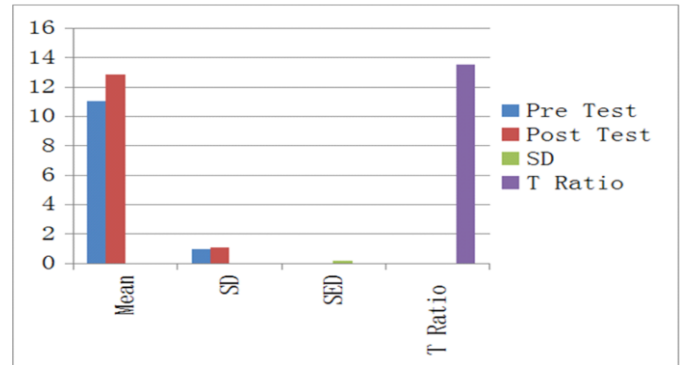
The significant difference of mean, S.D, S.E.D, and T ratio of pre and post test of upright row exercise of kabaddi players. Table no.1 above represents, the mean score of kabaddi players of resistance exercise ‘up right row’ as post test score performance mean is 13.00 and pre test performances mean is 10.400. The S.D. of post test performance is 0.8165 and pre test performance is 0.6992, SED is 0.1633 and the calculated value of ‘t’-ratio test is 15.922, which is significance at the 0.05 level of the confidence. This shows that the hypothesis

was rejected at the 0.05 level of significance and significant difference was found between the post test and pre test of upright row resistance exercise of kabaddi players performance.

Table 2: Results related to resistance exercises ‘push down’ on kabaddi players in Hisar district

Resistance Exercises	Pre-test		Post-test		S.E.D	T-ratio
	mean	S.D.	mean	S.D.		
Leg press	11	0.942	12.8	1.032	0.13333	13.500

Source:- Primary Survey



Significant at 0.05 level of confidence

Fig 2: Results related to resistance exercises ‘push down’ on kabaddi players in Hisar district

The significant difference of mean, S.D, S.E.D, and T ratio of pre and post test of push down exercise of kabaddi players. As show in Table no.2 above, the mean score of kabaddi players of resistance exercise ‘push down’ as post test score performance mean is 12.800 and pre test performances mean is 11.00. The S.D. of post test performance is 1.0328 and pre test performance is 0.9428, SED is 0.13333 and the calculated value of ‘t’-ratio test is 13.500, which is signified at the 0.05 level of the confidence. It means that the hypothesis was rejected at the 0.05 level of significance and significant difference was found between the post test and pre test of push down resistance exercise of kabaddi player’s performance.

Conclusion

The scholar had taken a null hypothesis in the starting of that study. As the scholar collected the data according to it and the scholar uses the mean, S.D, S.E.D, T-ratio test for interpretation of data and the scholar found that during a training period of resistance exercise of three weeks. The performance and strength of body is increased by all exercises done by kabaddi players in post test as compared to pre-test. It proves that the null hypothesis is rejected.

Reference

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