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Effect of Turbulence Training and Combination of Weight – Plyometric Training on Over All Playing Ability of Men Kabaddi Players

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Abstract – The present study was undertaken to analyze the effect of turbulence training [TTGKP], combination of weight – plyometric training and combined turbulence training and Weight - Plyometric training [CTWPTGKP] on over all playing ability of kabaddi players. total N=60 male intercollegiate level participated men kabaddi players age ranging from 18-25 years selected from various colleges from Vizianagaram district of Andhra Pradesh . The kabaddi players chosen for the study were randomly divided into four groups each group n=15 kabaddi players i.e. one empirical group: Turbulence training group kabaddi players [TTGKP], second empirical group: combined weight - plyometric training group kabaddi players [CWPTGKP], three empirical group: combined turbulence training and weight - plyometric training group kabaddi players [CTWPTGKP] and one control kabaddi players group [CKPG]. CKPG were restricted to participate in any activities. The trainings were given for a period of twelve weeks. The data were collected before and after the training by conducting Judgment test (consisting of 5 kabaddi expert). The obtained data's were analyzed by Analysis of Covariance (ANCOVA). The level of significant was fixed at 0.05 levels. The results of the study showed that turbulence training treatment [Package I], combined weight - plyometric training treatment [Package II] and combined turbulence training and weight - plyometric training [Package III] significantly improved over all kabaddi playing ability of the kabaddi players when comparative with control group.

Keywords – Turbulence Training, Plyometric Training – Weight Training.

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INTRODUCTION

Turbulence training workout is method of performing strength training and interval training in one work out. It is most efficient and effective training for fast burning fat and muscles building. The best fat loss workouts are designed in turbulence training that train multiple muscles groups at the same time by changing the training intensity and using a variety of repetition of your lifting and including interval training for burning more fat. In a 2006 study in the journal of applied physiology, researchers found that in two weeks of turbulence training style workouts, whole body fat burning increased by 36% after exercise. A turbulence style workout boosted fat melting hormones by 450% (Stokes 2002). When inactive people start doing turbulence style workouts, it produces immediate changes in their body's fat burning capacity (Egan 2012).

The kabaddi game specific skills are natural activities of pulling, catching, pushing, throwing, running, jumping etc. which come instinctively to human beings are called into play in the game of Kabaddi as a pattern of co-ordination with certain norms or rules are evolved for naturalizing the activities governing the game so as to make it highly enjoyable (Manik 2015). The kabaddi specific skills like kicking, toe touch, hand touch, hip hold etcetera plays a vital role in kabaddi game performances. As far as specific training programme needs to be specific and that detailed and include developing the kabaddi player's entire body for over all playing ability and need of the quality players as per modern game (Ravindran 2019).

STATEMENT OF THE PROBLEM:

The purpose of the study was to investigate the "Effect of turbulence training, combination of weight – plyometric training and combined turbulence training and Weight - Plyometric training on over all playing ability of kabaddi players.

HYPOTHESIS:

- It was hypothesis that there will be a significant improvement on over all playing ability of kabaddi player after the twelve weeks of turbulence training, combination of weight – plyometric training and combined turbulence training and weight - plyometric training when compared with control group kabaddi players.

- It was hypothesis that combined turbulence training and weight - plyometric training group kabaddi players will be superior than the turbulence training and combination of weight – plyometric training group kabaddi player.

METHODOLOGY:

The purpose of this study was to find out the effect of turbulence training, combination of weight – plyometric training and combined turbulence training and Weight - Plyometric training on over all playing ability of kabaddi players.The kabaddi players chosen for the study were randomly divided into four groups each group n=15 kabaddi players i.e. one empirical group: Turbulence training group kabaddi players [TTGKP], second empirical group: combined weight - plyometric training group kabaddi players [CWPTGKP], three empirical group: combined turbulence training and weight - plyometric training group kabaddi players [CTWPTGKP] and one control kabaddi players group [CKPG]. CKPG were restricted to participate in any activities. The trainings were given for a period of twelve weeks. The data were collected before and after the training by conducting Judgment test (consisting of 5 kabaddi expert). The obtained data's were analyzed by Analysis of Covariance (ANCOVA). The level of significant was fixed at 0.05 levels.

Table – I

Analysis of Covariance for kabaddi over all playing ability on Pre Test and Post Test Data of Experimental groups and Control Groups kabaddi players (In Numbers)

GROUPS	TTGKP	CWPTGKP	CTWPTGKP	CKPG	SOURCE OF VARIANCE	SUM OF SQUARES	df	MEAN SQUARES	OBTAINED 'F'
Pre Test Mean	4.56	4.37	4.20	5.15	Between	7.68	3	2.56	2.29
SD	1.15	0.90	0.98	1.15	Within	62.40	56	1.11	
Post Test Mean	6.40	6.34	6.35	4.47	Between	40.04	3	13.35	14.86*
SD	0.92	0.98	0.77	1.07	Within	50.30	56	0.89	
Adjusted Post Test Mean	6.41	6.49	6.62	4.03	Between	62.27	3	20.75	80.98*
					Within	14.89	55	0.25	
Mean Diff	+1.84	+1.97	+2.15	-0.68	-	-	-	-	-

Table F-ratio value at 0.05 level of confidence for 3 and 56 (df) =2.77, 3 and 55 (df) =2.77
*Significant

The above table-I shows that there is a significant difference on over all playing ability among the four groups such Turbulence training group kabaddi players [TTGKP], combined weight - plyometric training group kabaddi players [CWPTGKP], combined turbulence training and weight - plyometric training group kabaddi players [CTWPTGKP] and control kabaddi players group [CKPG]. Since the calculated 'F' value required being significant at 0.05 level for 3, 56 d/f and 3, 55 are 2.77and 2.77, but the calculated values of kabaddi over all playing ability post and adjusted posttest 'F' values are 14.86 and 80.98 respectively. Which are higher than the tabulated value. Since the obtained 'F' ratio is found significant.

Table – II

The Scheffes Test for the Mean Differences between Paired Mean of Groups on kabaddi over all playing ability

ADJUSTED MEANS VALUES					Required "C I"
TTGKP	CWPTGKP	CTWPTGKP	CKPG	Mean Difference	
6.41	6.49	-	-	0.08	0.20
6.41	-	6.62	-	0.21*	0.20
6.41	-	-	4.03	2.38*	0.20
-	6.49	6.62	-	0.13	0.20
-	6.49	-	4.03	2.46*	0.20
-	-	6.62	4.03	2.39*	0.20

Significant at 0.05 level of confidence

Table:-II shows adjusted means values differences between two group's kabaddi players on overall playing ability to choose best training between TTGKP [Turbulence training group kabaddi players] and CTWPTGKP [combined turbulence training and weight - plyometric training group kabaddi players], TTGKP [Turbulence training group kabaddi players] and CKPG [control kabaddi players group], CWPTGKP [Combined weight - plyometric training group kabaddi players] and CKPG [control kabaddi players group] and CTWPTGKP [combined turbulence training and weight - plyometric training group kabaddi players] and CKPG [control kabaddi players group] were 0.21, 2.38, 2.46 and 2.39 respectively which were higher than the confidence interval value 0.20 on overall playing ability of kabaddi players at 0.05 level of confidence.

Whereas TTGKP [Turbulence training group kabaddi players] and CWPTGKP [Combined weight - plyometric training group kabaddi players], and CWPTGKP [Combined weight - plyometric training group kabaddi players] and CTWPTGKP [combined turbulence training and weight - plyometric training group kabaddi players] were 0.08 and 0.13 which were lower than the confidence interval value 0.20 on overall playing ability of kabaddi players at 0.05 level of confidence.

The graphical illustration of the pre-test, post-test and adjusted post-test mean values of the experimental groups and control group on over all playing ability of kabaddi players were presented in figure 1.

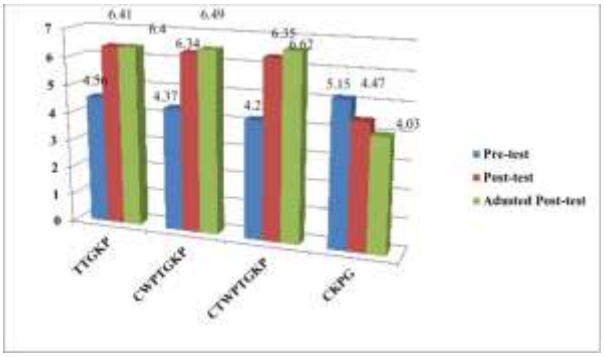

Figure 1: Graphical Illustration Showing the Pre-Test Post-Test and Adjusted Post-Test Mean Values on over all playing ability of kabaddi players

DISCUSSION ON HYPOTHESIS:

- In the first hypothesis it was stated that there will be a significant improvement on over all playing ability of kabaddi player after the twelve weeks of turbulence training, combination of weight – plyometric training and combined turbulence training and weight - plyometric training when compared with control group kabaddi players. The result of the study found that experimental group's kabaddi players over all playing abilities performance level improved when compared with control group. Hence the research hypothesis is accepted.

- In second hypothesis mention that that combined turbulence training and weight - plyometric training group kabaddi players will be superior comparision the turbulence training and combination of weight – plyometric training group kabaddi player. The study found no superiority. Hence research hypothesis rejected.

DISCUSSION AND FINDINGS:

The analysis report on Kabaddi over all playing ability performance stated that turbulence training treatment [Package I], combined weight - plyometric training treatment [Package II] and combined turbulence training and weight - plyometric training [Package III] schedule is positively effective to improve the Kabaddi over all playing ability of kabaddi players. The studies related to kabaddi over all playing ability were Sakthivel and Kumaresan (2020) study stated that video feedback instructional training and traditional training group kabaddi players significantly improved overall playing ability. Logeshwaran (2018) report stated that Hatha yoga and Hatha yoga with medicine ball exercise for twelve weeks improved kabaddi playing ability of kabaddi players. Varaprasada and Paul Kumar (2013) reports stated that complex training with yogic practices was effective to improve over all playing ability of kabaddi players. Karuppiah (2017) study report stated that isolated and combined impact of weight training and ladder training beneficial to improve the performance variables namely toe touch ability, hand touch ability and catching ability of kabaddi players.

CONCLUSIONS:

It was concluded that turbulence training, combined weight - plyometric training and combined turbulence training and weight - plyometric training had significant impact to improve the overall playing ability of kabaddi players. The study proved that combined turbulence training and weight - plyometric training is better than turbulence training to improve kabaddi over all playing ability of kabaddi players. Further study found no significant changes between turbulence training and combined weight - plyometric training and also between combined weight - plyometric training and combined turbulence training and weight - plyometric training.

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