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Effect of Resistance Band Training on Arm Power and Vertical Jump among School Level Badminton Players

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Abstract

The purpose of the study was to investigate the effect of resistance band training on arm power and vertical jump among school level badminton players. It was hypothesized that there would be significant differences on selected physical variables due to effect of resistance band training among badminton players. For the present study the 30 school level badminton players from Madurai district were selected at random and their age ranged from 15 to 17 years. For the present study pre test and post test random group design, which consists of control group and experimental group was used. The subjects were randomly assigned to two groups of fifteen each and named as Group 'A' and Group 'B'. Group 'A' underwent resistance band training, and Group 'B' underwent control group. Arm power was assessed by counts and Vertical jump was assessed by centimetres. The data were collected before and after six weeks of training. The data were analyzed by applying 'T'-ratio. The level of significance was set at 0.05. The experimental group showed better improvement on arm power and vertical jump among badminton players than the control group.

Key words: Resistance band training, Arm power, Vertical jump, Badminton.

Introduction

Resistance bands, also known as workout bands or exercise bands, are stretchable bands used for both physical therapy and general fitness. Not matter where you are with your body and your fitness routine, there is a resistance band out there that is right for you. This article will discuss what resistance bands are, how they benefit the body, and their many functionalities in the athletic world.

Methodology

The purpose of the study was to investigate the effect of resistance band training on arm power and vertical jump among school level badminton players. It was hypothesized that there would be significant differences on selected physical variables due to effect of resistance band training among badminton players. For the present study the 30 school level badminton players from Madurai district were selected at random and their age ranged from 15 to 17 years. For the present study pre test and post test random group design, which consists of control group and experimental group was used. The subjects were randomly assigned to two groups of fifteen each and named as Group 'A' and Group 'B'. Group 'A' underwent resistance band training, and Group 'B' underwent control group. Arm power was assessed by counts and Vertical jump was assessed by centimetres. The data were collected before and after six weeks of training. The data were analyzed by applying 'T'-ratio. The level of significance was set at 0.05. The experimental group showed better improvement on arm power and vertical jump among badminton players than the control group.

Table 1

Analysis of T-ratio for the Pre and Post-test for Control and Experimental Group on Arm power

Variables	Group	Mean		SD		SD Error	df	't' ratio
		Pre	Post	Pre	Post			
Arm power	Control	11.53	11.46	2.06	1.72	0.22	14	0.29
	Experimental	12.06	13.26	1.94	1.79	0.20		**6.00**

Significance at .05 level of confidence

Fig- 1

Cylinder Diagram Shows the Mean Values of Pre and Post Tests of Control and Experimental group on Arm Power

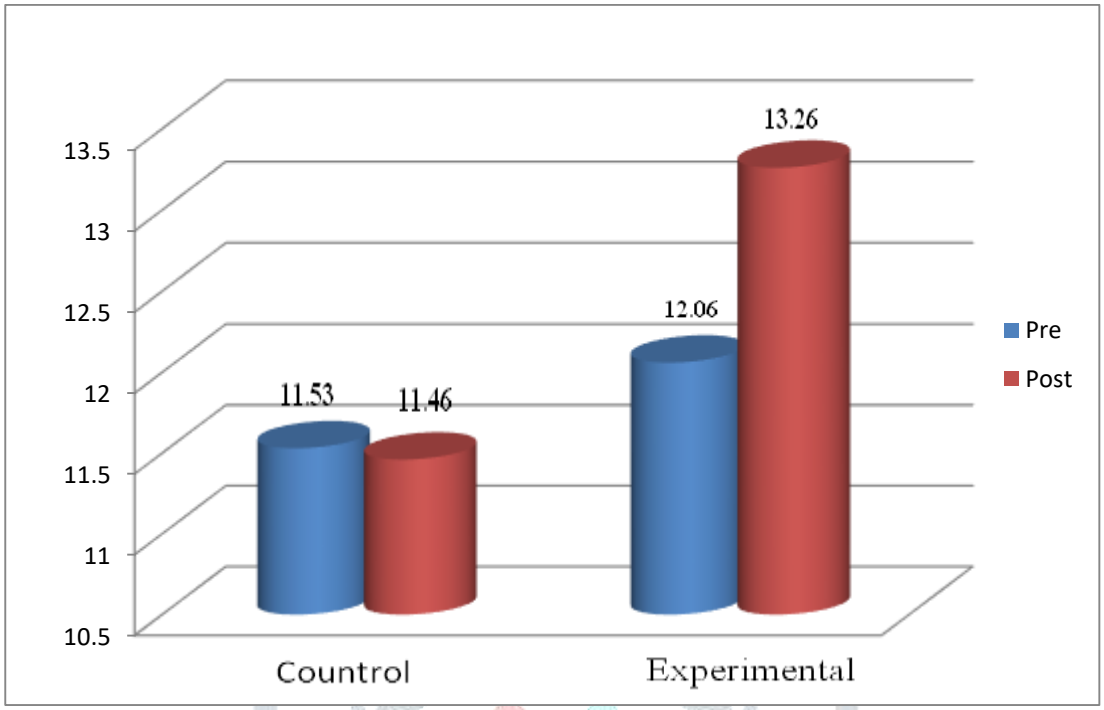


Table 2

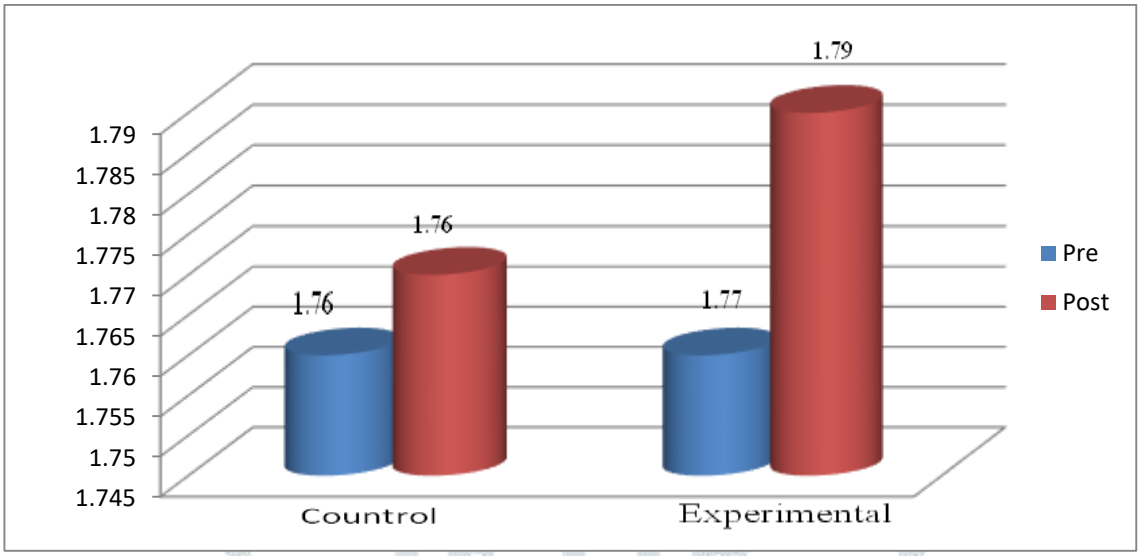
Analysis of T-ratio for the Pre and Post-test for Control and Experimental Group on Vertical Jump

Variables	Group	Mean		SD		SD Error	df	't' ratio
		Pre	Post	Pre	Post			
Vertical Jump	Control	1.76	1.76	0.23	0.23	0.00	14	2.16
	Experimental	1.77	1.79	0.27	0.27	0.00		**5.00***

Significance at .05 level of confidence

Fig- 2

Cylinder Diagram Shows the Mean Values of Pre and Post Tests of Control and Experimental group on Vertical Jump



Discussion and Findings:

In case of resistance band training performance i.e. arm power and vertical jump performance the results between pre and post (6 week) test has been found significantly higher in resistance band training group in comparison to control group. This is possible because due to regular resistance band training which may also bring sudden spurt in physical performance in school level badminton players. The findings of the present study have strongly indicates that resistance band training of six weeks have significant effect on selected resistance band training i.e., arm power and vertical jump of school level badminton players. Hence the hypothesis earlier set that resistance band training programme would have been significant effect on selected resistance band training components in light of the same, the hypothesis was accepted.

Conclusions:

On the basis of findings and with in the limitations of the study the following conclusions were drawn:

1. The resistance band training had positive impact on arm power and vertical jump among college badminton players.

2. The experimental group showed better improvement arm power and vertical jump among college level badminton players than the control group.

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