Effect of Battle Rope Training on Leg Explosive Power among College Level Badminton Players

G. Satheesh Kumar[1*] and C. Ramesh[2]

[1]*Guest Lecturer, Department of Physical Education, Madurai Kamaraj University, Madurai, Tamil Nadu, India*

[2]*Assistant Professor and Head, Department of Physical Education, Madurai Kamaraj University, Madurai, Tamil Nadu, India.*

[*]*Corresponding Author Email: bbkumar3520@gmail.com*

Abstract

The purpose of the study was to investigate the effect of battle rope training on leg explosive power among college level badminton players. It was hypothesized that there would be significant differences on selected physical variables due to effect of battle rope training among college level badminton players. For the present study the 30 college level badminton players from Madurai district were selected at random and their age ranged from 17 to 24 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 battle rope training, and Group 'B' underwent control group. Leg Explosive power was assessed by centimetres. The data were collected before and after six weeks of training. The data were analysed by applying 'T'-ratio. The level of significance was set at 0.05. The experimental group showed better improvement on leg explosive power among college level badminton players than the control group.

Keywords: *Battle rope training, Leg Explosive Power, Badminton.*

Introduction

Badminton is a great sport for fitness and is very excellent for individuals of all age groups. If you want to try out a new racket sport, it is a great choice. It is officially chosen as the fastest of all racket sports in the world. The speed at which a player can hit the shuttlecock is up

to 288kph toward their opponent. A player can also run around the court up to 6.4km or 4 miles during the match, so the players must have great agility to keep up with this game. Although agility and stamina are necessary for this game at a competitive level, anyone can play this game to achieve fitness and flexibility.

The battle rope training

The battle rope is an energy system training (conditioning) and muscle endurance exercise. It works muscles in the upper back, shoulders, arms, abs, back, glutes and legs. There are many variations that can be used.

Methodology

The purpose of the study was to investigate the effect of battle rope training on leg explosive power among college level badminton players. It was hypothesized that there would be significant differences on selected physical variables due to effect of battle rope training among college level badminton players. For the present study the 30 college level badminton players from Madurai district were selected at random and their age ranged from 17 to 24 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 battle rope training, and Group 'B' underwent control group. Leg Explosive power was assessed by centimetres. The data were collected before and after six weeks of training. The data were analysed by applying 'T'-ratio. The level of significance was set at 0.05. The experimental group showed better improvement on leg explosive power among college level badminton players than the control group.

Hypothesis

It was hypothesized that there would be significant differences on selected physical variables due to the effect of battle rope training on leg explosive poweramong college level badminton players

Table 1

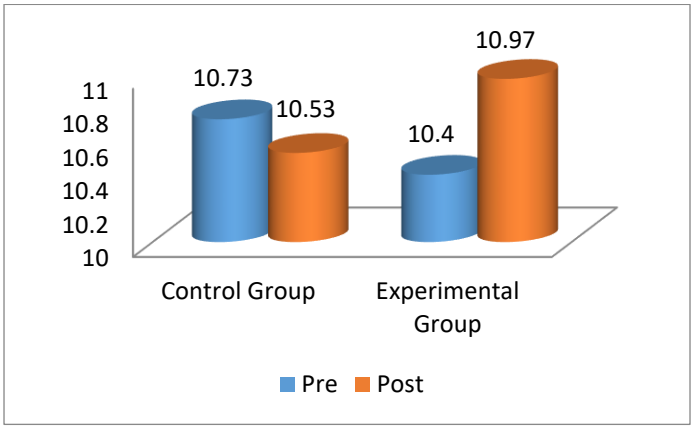
Analysis of T-ratio for the Pre and Post-test for Control and Experimental Group on Leg Explosive Power

Variables	Group	Mean		SD		SD Error	df	't' ratio
		Pre	Post	Pre	Post			
Arm power	Control	10.73	10.53	0.59	0.63	0.20	14	1.00
	Experimental	10.40	10.97	0.63	0.68	0.14		**4.07***

Significance at 0.05 level of confidence and required table value of 2.15

The Table shows that the mean values of pre-test and post-test of control group on leg explosive power were 10.73 and 10.53 respectively. The obtained 't' ratio was 1.00, since the obtained 't' ratio was less than the required table value of 2.15 for the significant at 0.05 level with degrees of freedom1 and 14 it was found to be statistically not significant. The mean values of pre-test and post-test of experimental groups on leg explosive power were 10.40 and 10.97 respectively. The obtained 't' ratio was 4.07*, since the obtained 't' ratio was greater than the required table value of 2.15 for significance at 0.05 level with degrees of freedom 1 and 14 it was found to be statistically significant. The result of the study showed that there was a significant difference between control group and experimental group in leg explosive power. It may be concluded from the result of the study that experimental group significantly improved leg explosive power due to six weeks of battle rope training.

Fig- 1: Cylinder Diagram Shows the Mean Values of Pre and Post Tests of Control and Experimental group on Leg Explosive Power



Discussion and Findings

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

Conclusions

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

1. The battle rope training had positive impact on leg explosive power among college level badminton players.
2. The experimental group showed better improvement leg explosive power among college level badminton players than the control group.

References

1. *Smith, Brittany. "10 battle rope moves that'll transform your body". Men's Journal. Retrieved 2022-08-11.*
2. *"Battle Ropes Workout & Exercises". LivingFit. Retrieved 2022-08-11.*
3. *"WHAT IS BADMINTON".* Badminton Oceania. *Retrieved 18 February 2022.*
4. *Burad, Anushree. "Commonly Used Badminton Terms and Definitions". Badminton Fanatiker. Retrieved 24 November 2024.*