



## **EFFECT OF RESISTANCE TRAINING ON ABDOMINAL MUSCLE STRENGTH AMONG BASKETBALL PLAYERS**

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**Cite This Article:** Dr. M. Sathish & Dr. K. Rajeshkumar, "Effect of Resistance Training on Abdominal Muscle Strength among Basketball Players", International Journal of Advanced Trends in Engineering and Technology, Volume 6, Issue 2, Page Number 53-54, 2021.

### **Abstract:**

The purpose of this study was to find out the effect of resistance training on abdominal muscle strength among men basketball players. To achieve the purpose of the present study, thirty basketball players from Tamilnadu Physical Education and Sports University, Chennai were selected as subjects at random and their age ranged from 18 to 25 years. The subjects were divided into two equal groups. The subjects were divided into two equal groups. The study was formulated as a true random group design, consisting of a pre-test and post-test. The subjects (n= 30) were randomly assigned to two equal groups of fifteen men subjects each. The groups were assigned as resistance training and control groups in an equivalent manner. The experimental group participated for a period of six weeks and the post-tests were conducted. After completion of treatment they were tested again as it was in the pre-test on all variables used in the present study. This test was assumed as post-test. Analysis of covariance (ANCOVA) was used to test the treatment effect of the training programmes on all the variables used in the study. It was observed that the six weeks of experimental group have significantly improved abdominal muscle strength of basketball players.

**Key Words:** Resistance Training, Abdominal Muscle, Basketball Players.

### **Introduction:**

Resistance training allows an elderly individual to walk longer before becoming tired. Both leg strength and walking ability are huge indicators of an older person's overall health. The importances of resistance exercise are well documented, and continues to prove that it's an important activity for human beings to be engaged in. Long ago in hunter gatherer societies, human muscles got a workout by building shelter, hunting, farming, and all the other manual chores necessary to live. Today, however, we have engineered inactivity into our lives with labor saving devices to the extent that our muscles rarely need to be pushed very hard. We don't rake leaves or cut grass or shovel snow by hand; we don't climb stairs or even walk in airports, we don't wash our clothes or our dishes or even push a vacuum by hand and we spend more and more time in front of our computers and televisions than we do outdoors raking leaves, playing touch football, baseball, soccer, hiking, or participating in any other recreational activities (Nancy et al. 2004).

### **Methodology:**

The purpose of this study was to find out the effect of resistance training on abdominal muscle strength among men basketball players. To achieve the purpose of the present study, thirty basketball players from Tamilnadu Physical Education and Sports University, Chennai were selected as subjects at random and their age ranged from 18 to 25 years. The subjects were divided into two equal groups. The subjects were divided into two equal groups. The study was formulated as a true random group design, consisting of a pre-test and post-test. The subjects (n= 30) were randomly assigned to two equal groups of fifteen men subjects each. The groups were assigned as resistance training and control groups in an equivalent manner. The experimental group participated for a period of six weeks and the post-tests were conducted. After completion of treatment they were tested again as it was in the pre-test on all variables used in the present study. This test was assumed as post-test. Analysis of covariance (ANCOVA) was used to test the treatment effect of the training programmes on all the variables used in the study.

### **Results and Discussion:**

Table 1: Computation of Mean and Analysis of Covariance on Abdominal Strength of Experimental and Control Groups

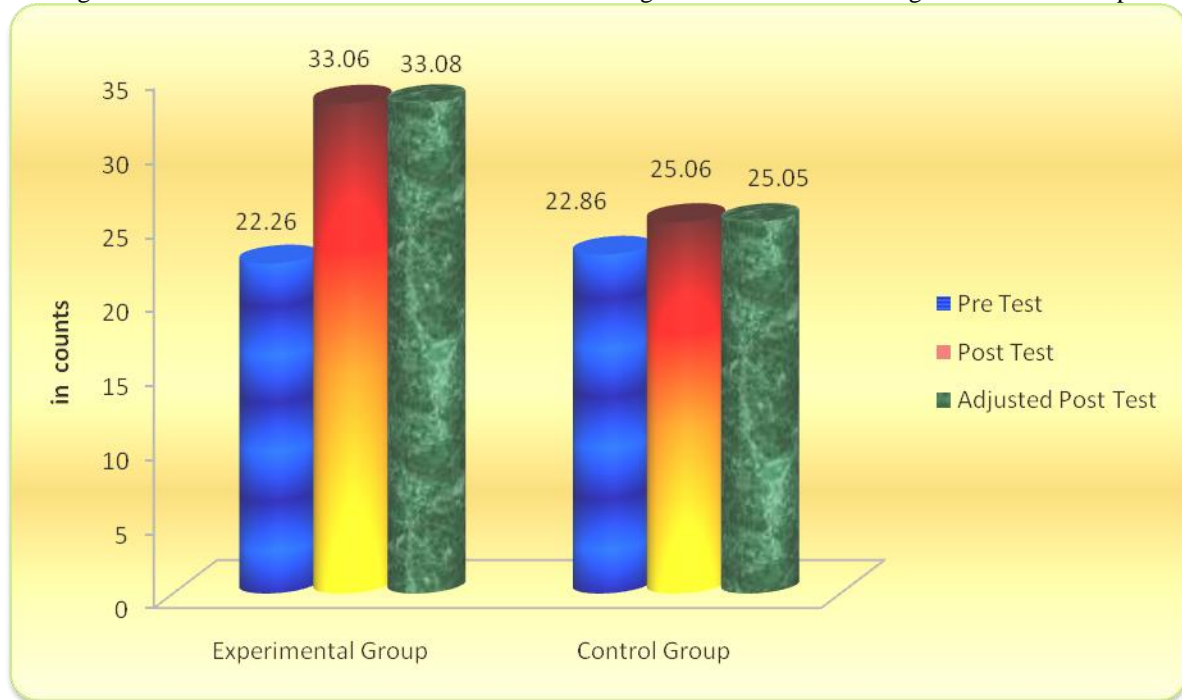
	<b>Experimental Group</b>	<b>Control Group</b>	<b>Source of Variance</b>	<b>Sum of Squares</b>	<b>df</b>	<b>Mean Square</b>	<b>F</b>
Pre Test Mean	22.26	22.86	BG	2.70	1	2.70	0.40
			WG	188.66	28	6.73	
Post Test Mean	33.06	25.06	BG	480.00	1	480.00	46.68*
			WG	287.86	28	10.28	
Adjusted Post Mean	33.08	25.05	BG	135.54	1	135.54	95.64*
			WG	38.26	27	1.41	

\* Significant at 0.05 level

Table value for df 1, 28 was 4.20, df 1, 27 was 4.21

The above table indicates the adjusted mean value of Abdominal Strength of experimental and control groups were 33.08 and 25.05 respectively. The obtained F-ratio of 95.64 for adjusted mean was greater than the table value 4.21 for the degrees of freedom 1 and 27 required for significance at 0.05 level of confidence. The result of the study indicates that there was a significant difference among experimental and control groups on Abdominal Strength. The above table also indicates that both pre and post test means of experimental and control groups also differ significantly. The pre, post and adjusted mean values of Abdominal Strength of both control and experimental groups are graphically represented in the figure-I.

Figure 1: Shows the Mean Values on Abdominal Strength of Resistance Training and Control Groups



#### Conclusion:

It was observed that the six weeks of experimental group have significantly improved abdominal muscle strength of basketball players.

#### References:

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