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Effect of Resistance Training on Selected Physical Fitness Variables among Inter Collegiate Cricket Players

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Abstract

This research was to find out the effect of resistance training on selected physical fitness variables among inter collegiate cricket players. To facilitate the study, 30 inter collegiate cricket players were selected from Namakkal, Tamilnadu. Their age was between 17 to 25 years. They were assigned in to two groups of which group served as resistance training and second one as control group. The study was formulated by true random group design, consisted of pretest and posttest. The subjects (N=30) were randomly assigned in to two equal groups of fifteen inter collegiate cricket players each. Thus, the groups were assigned as experimental group and control group respectively. Pretest was conducted for all the subjects on Physical fitness variables such as leg explosive strength, agility and speed. The Experimental group participated in their respective resistance training for a period of six weeks. The posttests were conducted on the above said dependent variables after a period of six weeks in the respective treatments. The initial and final scores in selected Physical fitness variables were put in to statistical treatment using dependent 't' ratio to find out the significant mean differences. The result of this study proved that significant differences were recorded due to six weeks of resistance training practices among inter collegiate cricket players. It was concluded that there was significant improvement in leg explosive strength and agility due to resistance training comparing to control group.

Keywords: Resistance, Physical Fitness, Cricket, Inter-collegiate.

Introduction

In the manual of weight training, Kirkely and Goodbody (1970) say, there are numerous resistance exercises that the jumper can use to build up leg power that one closely related to jumping itself bouncing, skipping and hopping through sand or wearing a weighted jacket or even doing these activities with a bar-bell or weighted sand bag across the shoulders can supplement the weight training. All are excellent for toughening the ankle and knee joints and are ideal preparation for jumping. In resistance training, the individual gains the necessary strength and also perfects the skills. The resistance trainee is twice blessed. First he gains strength necessary for better performances, secondly the acquisition of the correct execution of the skill also helps in better performance. So the player may perform the skill in a better and efficient way than all other trainees adapting other methods of training. Weight training is a very important aspect of sports training or physical body training and everybody is aware of their effects on the body's muscles and tendons. Many researchers and analysts also believe that weight training with the right cardio exercises is known to reduce and control hypertension and supports the cardio vascular health functions of the body. The greatest benefit of weight training on the body is the creation of lean body mass, which helps burning calories.

Cricket was probably devised by children and survived for many generations as essentially a children's game. Possibly it was derived from bowls, assuming bowls is the older sport, by the intervention of a batsman trying to stop the ball reaching its target by hitting it away. Playing on sheep-grazed land or in clearings, the original implements may have been a matted lump of sheep's wool as the ball; a stick or a crook or another farm tool as the bat; and a gate a stool or a tree stump as the wicket. The invention of the game could have happened in Norman or Plantagenet times anytime before 1300 or even in Saxon times before 1066. Cricket essentially belongs to the same family of bat-and-ball games as stoolball, rounders and baseball but whether it evolved from any of these or vice-versa cannot be determined. There is a 1523 reference to stoolball at a designated field in Oxfordshire this may be a generic term for any game in which a ball is somehow hit with a bat or stick. 18th century references to stoolball in conjunction with cricket clearly indicate that it was a separate activity.

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Methodology

This research was to find out the effect of

resistance training on selected physical fitness variables among inter collegiate cricket players. To facilitate the study, 30 inter collegiate cricket players were selected from Namakkal, Tamilnadu. Their age was between 17 to 25 years. They were assigned in to two groups of which group served as resistance training and second one as control group. The study was formulated by true random group design, consisted of pretest and posttest. The subjects (N=30) were randomly assigned in to two equal groups of fifteen inter collegiate cricket players each. Thus, the groups were assigned as experimental group and control group respectively. Pretest was conducted for all the subjects on Physical fitness variables such as leg explosive strength, agility and speed. The Experimental group participated in their respective resistance training for a period of six weeks. The posttests were conducted on the above said dependent variables after a period of six weeks in the respective treatments. The initial and final scores in selected Physical fitness variables were put in to statistical treatment using dependent 't' ratio to find out the significant mean differences. The result of this study proved that significant differences were recorded due to six weeks of resistance training practices among inter collegiate cricket players.

Table I. Dependent 't'- ratio for inter collegiate level cricket players on leg explosive strength (Scores in meters)

S.No	Group	Mean		Standard Deviation		Obtained value	Table value
		Pre	Post	Pre	Post		
1	Control group	0.75	0.74	0.04	0.03	0.50	2.14
2	Experimental group	0.76	0.92	0.05	0.07	8.00*	

Degree of freedom = (N – 1) = 14. *Significant at 0.05 level of confidence. Table value at 0.05 level = 2.14

Table I shows that the mean value of pre and post test means were 0.75 and 0.74 of control group. The obtained t-ratio 0.50 was not significant this was lesser than the table value of 2.14. Table I shows that the mean value of pre and post test mean were 0.76 and 0.92 of experimental group. The obtained 8.00 was significant this was higher than the table value of 2.14.

Figure I. The bar diagram shows the result of pre and post mean of the leg explosive strength among inter collegiate level cricket players (Score in meters)

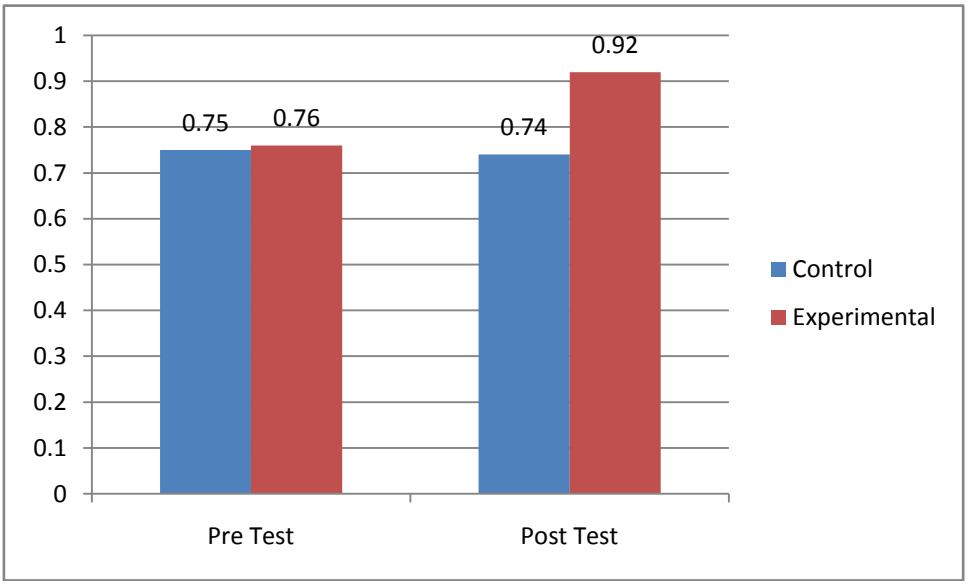


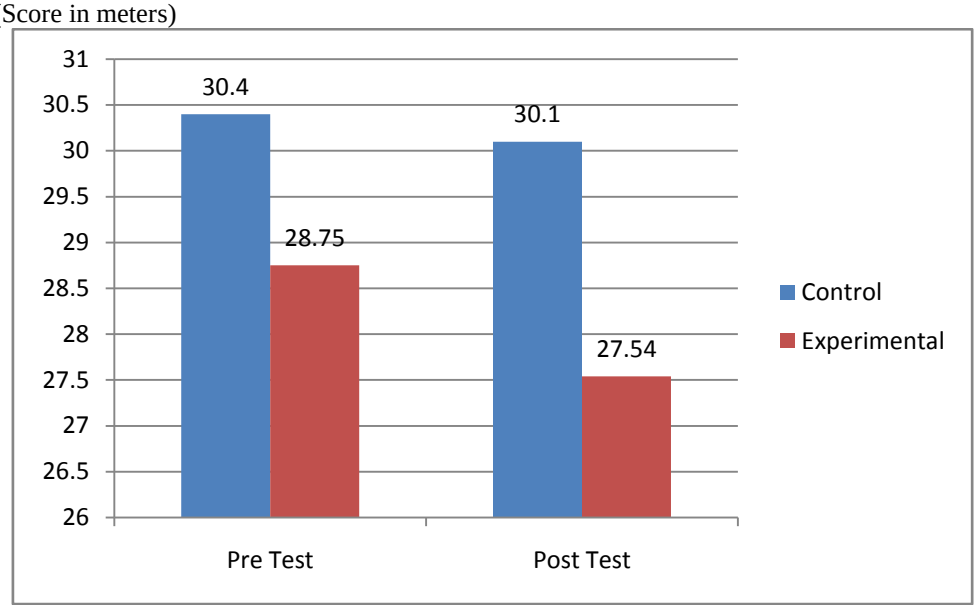
Table II. Dependent 't'- ratio for inter collegiate level cricket players on agility (Scores in seconds)

S.No	Group	Mean		Standard Deviation		Obtained value	Table value
		Pre	Post	Pre	Post		
1	Control group	30.40	30.10	1.43	1.59	1.25	2.14
2	Experimental group	28.75	27.54	1.24	1.31	4.03*	

Degree of freedom = (N – 1) = 14. *Significant at 0.05 level of confidence. Table value at 0.05 level = 2.14

Table II shows that the mean value of pre and post test means were 30.40 and 30.10 of control group. The obtain t-ratio 1.25 was not significant this was lesser than the table value of 2.14. Table II shows that the mean value of pre and post test mean were 28.75 and 27.54 of experimental group. The obtained 4.03 was significant this was higher than the table value of 2.14.

Figure II. The bar diagram shows in the result of pre and post mean of the agility among inter collegiate level cricket players (Score in meters)



Conclusions

Within limitations and delimitations of this study, the following conclusions arrived at,

1. It was concluded that there was significant improvement in leg explosive strength due to resistance training comparing to control group.
2. It was concluded that there was significant improvement in agility due to resistance training comparing to control group.

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