

“The Study of Effect of Some Selected Exercises on Explosive Strength, Speed, Endurance and Agility of Soft Ball Players.”

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Abstract

The purpose of the study was to determine the “The Study of Effect of Some Selected Exercises on Explosive Strength, Speed, Endurance and Agility of Soft Ball Players.” The study was delimited to the male Soft Ball Players of Amravati City. The age of selected subject were ranging from 17 to 25 years and their status was inter collegiate level. The researcher had selected 60 Soft Ball Players. Their fitness was tested by some selected exercises for Explosive Strength, Speed, Endurance and Agility. The scores were arranged in descending order. Ten (10) of high performance along with Ten (10) of low performance, were eliminated. It was done to selected the subjects of an average standard. Remaining forty (40) were finally selected for the study, twenty subjects in each control and experimental group respectively. Initial or pre test was conducted before the start of the experiment and was conducted on both the groups "A" and "B". The endurance was measured by using 600 yard run which was recorded in minutes and seconds. The explosive strength of shoulder was measure by using soft ball throw which was recorded in feet. (Maximum Distance Covered).The speed was measured by using 50 yard dash which was recorded in seconds. The agility was measured by using shuttle run (22x4) which was recorded in seconds and micro seconds.

INTRODUCTION

Fitness has become increasingly important part of softball both physical and mental fitness are required in softball. The physical fitness components such as 1) Endurance 2) Speed 3) Agility 4) Strength 5) Power 6) Flexibility 7) Muscular Strength etc. are very essential for the Soft Ball Players. **The** purpose of the study was to determine the " The Study of Effect of Some Selected Exercises on Explosive Strength, Speed, Endurance and Agility of Soft Ball Players. The study would help in finding out the methods of improving these components of Soft Ball Players. It might help the players to develop their physical fitness at optimum level. It would help the players to select the correct exercises while their training and also useful for coaches to develop the physical fitness of their players in a positive and successive manner.

PROCEDURE

The study was delimited to the male Soft Ball Players of Amravati City. The age of selected subject were ranging from 17 to 25 years and their status was inter collegiate level. The researcher had selected 60 Soft Ball Players. Their fitness was tested by some selected exercises for Explosive Strength, Speed, Endurance and Agility. The scores were arranged in descending order. Ten (10) of high performance along with Ten (10) of low performance, were eliminated. It was done to selected the

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Training Schedule for Six Weeks

<i>Week</i>	<i>Days</i>	<i>Exercise Programme</i>	<i>Intensy</i>	<i>Repetitio</i> <i>n</i>	<i>Sets</i>	<i>Recovery</i>	<i>Duration</i>	<i>Total Volume</i>		
I & II	Mon	Zig-Zag Run & 60 Yard Dash	50-55%	3	3	10 Seconds between repetition and 1 minute between sets and 2 minutes between activity.	15 minutes warm-up approx. 15-20 min. for activities (with recovery) 15 min. cool down.	Approx. 1.15 min.		
	Wed			4	3					
	Fri									
II	Tues	Medicine Ball Throw & 800 yard Run	55-60%	10	3	2 min. between sets. (Incomplete) 2 min. for each Repetition (Incomplete)	15 min. warming up. -- 2 min. between repetition. 15 min. cool down	Approx. 1.15 min		
	Thu.			3	1					
	Sat.									
Sunday Rest (But not complete rest - 15 min. for Warming up and Cooling Down.)										
III & IV	Mon	Zig-Zag Run & 60 Yard Dash	55-60%	3	3	20 Seconds between repetition and 2 minute between sets. 2 minutes between activities.	15 minutes warm-up approx. 15-20 min. for activities. 15 min. cool down.	Approx. 1.15 min		
	Wed			4	3					
	Fri.									
IV	Tues	Medicine Ball Throw & 800 yard Run	60-70%	12	3	2 min. between sets. (Incomplete) 3 min. between sets. (Incomplete)	15 min. warming up. -- 1.5 min. for each repetition. 15 Min. Cool Down	Approx. 1.15 min		
	Thur		60-65%	3	1					
	Sat.									
Sunday Rest (But not complete rest - 15 min. for Warming up and Cooling Down.)										
V & VI	Mon	Zig-Zag Run & 60 Yard Dash	65-75%	3	3	30 Seconds between repetition (Complete recovery between sets i.e. 3-4 minutes)	15 minutes warm-up approx. 25-30 min. for activities. 15 min. for cool down.	Approx. 1.15 min		
	Wed									
	Fri									
VI	Tues	Medicine Ball Throw and 800 yard Run	75-85%	4	3	3 min. between sets. (complete) 3-4 min. between sets (complete)	15 min. warming up. -- 1.5 min. for each repetition. 15 min. cooling down.	Approx. 1-15 minutes		
	Thur		65-70%	3	1					
	Sat.									

ANALYSIS AND INTERPRETATION OF DATA

The statistical analysis of the data consisting of raw scores made by the subjects by constructing a motor fitness (4 item) test by the help of AAHPERD Fitness Test have been presented. The level of significance to test the hypothesis in term of 't' ratio obtain was chosen as 0.05 level of confidence. The obtain raw scores in each test items were converted into standard scores with the help of 't' scale and composite score was formed, which were subjected to 't' test to find out the overall significant difference between the two groups i.e. pre-test and post-test. After calculating the overall significant difference in pre and post test, each item of test was subjected to 't' test to find out the significant difference.

Table – 1
Significance of Mean Difference Between Pre-Test and Post-Test of Control Group

Group	Mean	Mean Diff.	S.D.	't' ratio
Pre Test	205.18	15.21	25.781	1.88
Post Test	220.39		25.194	

Tabulated t 0.05 (20) = 2.09

If calculated 't' is greater than the tabulated t 0.05, then there is a significant difference between the means of two test performance of group.

It is observe that calculated the 't' value of 1.88 is less than the tabulated 't' value of 2.09. Hence there is no significant difference between the means of pre and post test of control group.

Figure - 1

Graph Showing Mean Difference Between Pre-Test and Post-Test of Control Group

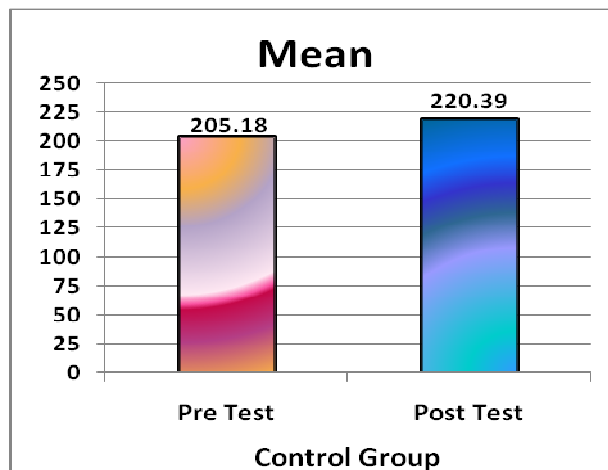


Table - 2

Significance of Mean Difference Between Pre-Test and Post-Test of Experimental Group

Group	Mean	Mean Diff.	S.D.	't' ratio
Pre Test	200.77	45.93	31.413	5.186
Post Test	246.70		24.118	

Tabulated $t_{0.05(20)} = 2.09$

If calculated 't' is greater than the tabulated $t_{0.05}$, then there is a significant difference between the mean of two test performed of group.

It is observed that calculated the 't' value of 5.186 is greater than 't' value of 2.09. Hence there is significant difference between the means of pre and post test of experimental group.

$$\text{Cal. } t = 5.186 > \text{tab. } t_{0.05(20)} = 2.09$$

Figure - 2

Graph Showing Mean Difference Between Pre-Test and Post-Test of Experimental Group

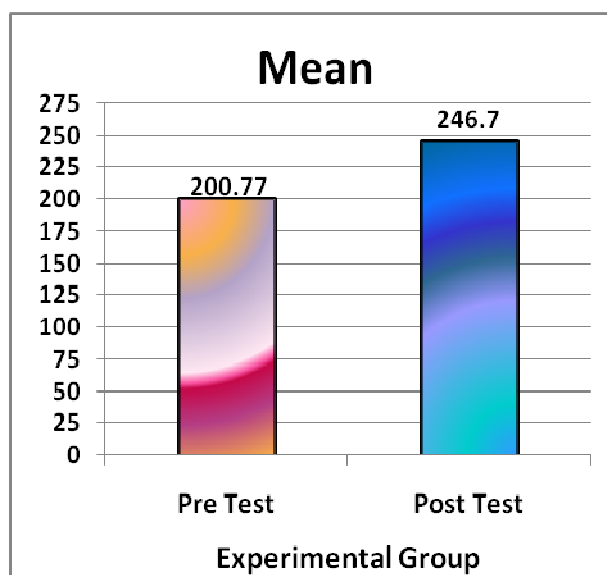


Table - 3

Significance of Mean Difference Between Post Test of Control Group and Experimental Group

Group	Mean	Mean Diff.	S.D.	't' ratio
Post Test Control Group	220.39	26.31	25.194	3.377
Post Test Experimental Group	246.70		24.118	

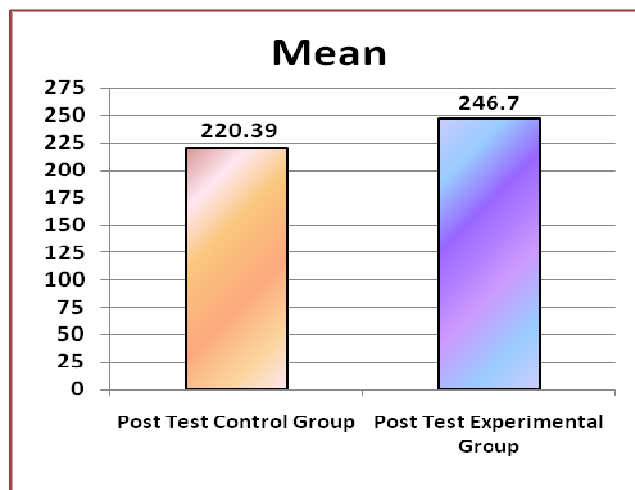
Tabulated $t_{0.05(20)} = 2.09$

If calculated 't' is greater than the tabulated $t_{0.05}$, then there is a significant difference between the mean of two test performance of groups.

It is observed that calculated 't' value of 3.377 is greater than the tabulated 't' value of 2.09. Hence there is a significant difference between the means of post test of control and experimental group.

Cal. $t = 3.377 > \text{tab. } t_{0.05(20)} = 2.09$

Figure - 3 Graph showing Mean Difference Between Post Test of Control Group and Experimental Group



Study of the selected motor fitness training programme of Soft Ball Players of age group 17 to 25 years of Amravati city indicates there is a significant difference between the motor fitness of both the group i.e. control and experimental group.

Finding :

Table-1, it shows that the mean differences between the pre-test and post-test of control group is 1.88, so it is found that there is no significant difference in both the tests.

Table-2, found that the experimental group have more speed, explosive strength, endurance and agility compare to the control group as their performance is found to be significant.

Table-3, show that experimental group of post test have more mean in their motor fitness as compared to the pre-test and performance is found to be significant.

It has been observed from the result of the finding of the study that the pre and post test experimental group between the age group of 17 to 25 years had better motor fitness (Explosive Strength, Speed, Endurance and Agility) of pre and post test of control group as measured by there overall performance by some selected exercises of motor fitness.

It was hypothesized that there is a significant difference between selected exercise on the development of speed, agility, explosive strength and endurance of the Soft Ball players of Amravati City. From the above result and discussion, it is observed that the hypothesis stand proves to be correct.

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