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## Effect of selected exercises on batting, fielding, throwing and base running in softball players

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### Abstract

The purpose of the present study was to find out the effect of selected exercises on batting, fielding, throwing and base running in softball players. The subjects were selected from Sant Gadge Baba Amravati University, Amravati. 40 male subjects of Sant Gadge Baba Amravati University, Amravati were selected as subjects for the study. All the subject will were divided into two groups consisting of 20 subjects each. The subjects were selected by using simple random sampling. The following four variables were be selected for the study: 1. Batting, 2. Fielding, 3. Throwing and 4. Base Running. Six weeks of exercises training were given to the experimental group. The control group was not allowed to participate in any of the training programes, except their routine physical education classes. Measurements for the variables were taken at the beginning (pre - test) and at the end of the experimental period, after six weeks (post - test) the data were collected for all the variables from both control and experimental groups, for five days. During this period the subject were not allowed to participate in any training. The data collected on 40 male subjects before and after six week training program on batting, fielding, throwing and base running was analyzed by comparing the means of pre and post test of control and experimental groups and was again statistically analyzed by applying 't'-test to check the significant difference among selected variables. To test the hypothesis the level of significance was set at 0.05 level of confidence which was considered adequate and reliable for the purpose of this study. Results: There was significant effect on subjects of batting, fielding, throwing and base running in softball through the statistical analysis after six weeks training programme.

**Keywords:** exercises, batting, fielding, throwing and base running.

### Introduction

Exercise is a safe activity for most individuals; however, it is desirable for adults to have some screening prior to starting an exercise programme or taking an exercise test. It has been done by non-medical personnel in non-medical settings. Age, health, status, type of the test, and exercise plan are factors which one apparent that for many individuals the pre-exercise evaluation can determine the depth of evaluation required and need for medical involvement. This chapter will focus on the situation when the more comprehensive medical evaluation is appropriate. A careful evaluation of individuals prior to exercise testing is important for numerous reasons including the following: to ensure the safety of exercise testing and subsequent exercise programme, to decide on the appropriate type of exercise test<sup>[1]</sup>.

Regular exercise can help protect you from heart disease and stroke, high blood pressure, noninsulin-dependent diabetes, obesity, back pain, osteoporosis, and can improve your mood and help you to better manage stress.

For the greatest overall health benefits, experts recommend that you do 20 to 30 minutes of aerobic activity three or more times a week and some type of muscle strengthening activity and stretching at least twice a week. However, if you are unable to do this level of activity, you can gain substantial health benefits by accumulating 30 minutes or more of moderate-intensity physical activity a day, at least five times a week.

If you have been inactive for a while, you may want to start with less strenuous activities such as walking or swimming at a comfortable pace. Beginning at a slow pace will allow you to become physically fit without straining your body. Once you are in better shape, you can gradually do more strenuous activity<sup>[2]</sup>.

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**Methodology**

**Source of Data**

The subjects were selected from Sant Gadge Baba Amravati University, Amravati.

**Selection of Subject**

40 male subjects of Sant Gadge Baba Amravati University, Amravati were selected as subjects for the study. All the subject will be divided into two groups consisting of 20 subjects each.

**Sampling Method**

The subjects were selected by using simple random sampling.

**Selection of Variable**

The following four variables were be selected for the study:

1. Batting
2. Fielding
3. Throwing
4. Base Running

**Criterion Measures**

The researcher was conducting AAHPER Softball Test for knowing the batting, fielding, throwing and base running.

**Experimental procedure of Training Design**

S. No.	Name of Group	Type of Group	Type of Training
1.	A	Experimental	Selected exercises.
2.	B	Control	No Training

Six weeks of exercises training were given to the experimental group. The control group was not allowed to participate in any of the training programmes, except their routine physical education classes. Measurements for the variables were taken at the beginning (pre - test) and at the end of the experimental period, after six weeks (post - test) the data were collected for

all the variables from both control and experimental groups, for five days. During this period the subject were not allowed to participate in any training.

**Training Schedule for Experimental Group**

Exercises	Duration		
	1 to 2 Weeks	3 to 4 Weeks	5 to 6 Weeks
	4 minutes	50 minutes	60 minutes
Jogging	4	5	6
General Warming-Up	4	5	6
Pull-Ups	1	2	3
Push-Ups	1	2	3
Handball Holding	2	3	3
Medicine Ball Throw	3	4	4
Ball Throw To The Wall	3	3	4
Griping Practice	3	3	4
Rest	3	3	5
Pull-UpWith Holding	1	2	2
Shuttle Run	1	2	2
Run And Jump	1	2	3
Jump And Throw	1	2	3
Dead Lift	2	2	2
Cooling Down	5	5	5
Rest	5	5	5

**Statistical Analysis**

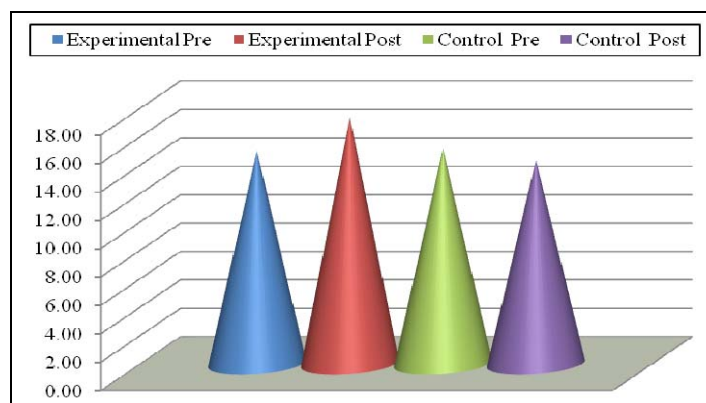
The data collected on 40 male subjects before and after six week training program on batting, fielding, throwing and base running was analysed by comparing the means of pre and post-test of control and experimental groups and was again statistically analyzed by applying 't'-test to check the significant difference among selected variables. To test the hypothesis the level of significance was set at 0.05 level of confidence which was considered adequate and reliable for the purpose of this study. Therefore separate presented tables and graphs have been presented for each variable as follows.

**Table 1:** Comparison of batting between pre and post test of control and experimental groups.

Group	Test	Mean	SD	SE	MD	Ot	df	Tt
Experimental	Pre	15.000	3.207	0.959	2.333*	2.434	38	2.02
	Post	17.333	2.845					
Control	Pre	15.133	2.774	0.786	0.800	1.018	38	2.02
	Post	14.333	2.160					

Table-1 shows that the significant difference in batting between pre and post test experimental group. The obtained 't' value of 2.333 is more than the table value of 2.02 with 38 degree of freedom.

Table-1 shows that the no significant difference in batting between pre and post test control group. The obtained 't' value of 0.800 is less than the table value of 2.02 with 38 degree of freedom.



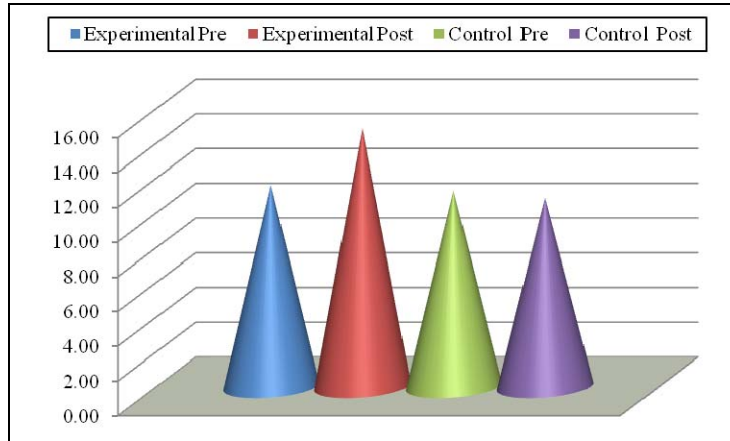
**Fig 1:** the graph showing the mean value of batting between pre and post test of experimental and control groups

**Table 2:** Comparison of fielding between pre and post-test of control and experimental groups.

Group	Test	Mean	SD	SE	MD	Ot	df	Tt
Experimental	Pre	11.600	2.530	0.822	3.267	3.973*	38	2.02
	Post	14.867	2.669					
Control	Pre	11.267	2.738	0.799	0.400	0.501	38	2.02
	Post	10.867	2.295					

Table-2 shows that the significant difference in fielding between pre and post test experimental group. The obtained 't' value of 3.973 is more than the table value of 2.02 with 38 degree of freedom.

Table-2 shows that the no significant difference in fielding between pre and post test control group. The obtained 't' value of 0.501 is less than the table value of 2.02 with 38 degree of freedom.



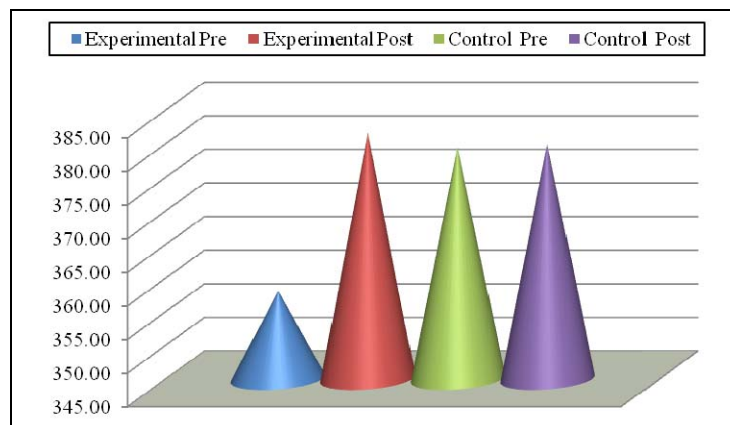
**Fig 2:** the graph showing the mean value of fielding between pre and post test of experimental and control groups

**Table 3:** Comparison of throwing between pre and post test of control and experimental groups.

Group	Test	Mean	SD	SE	MD	Ot	df	Tt
Experimental	Pre	358.067	35.068	8.508	23.533	2.766*	38	2.02
	Post	381.600	14.759					
Control	Pre	379.533	12.253	3.761	0.400	0.106	38	2.02
	Post	379.933	11.523					

Table-3 shows that the significant difference in throwing between pre and post test experimental group. The obtained 't' value of 2.766 is more than the table value of 2.02 with 38 degree of freedom.

Table-3 shows that the no significant difference in throwing between pre and post test control group. The obtained 't' value of 0.400 is less than the table value of 2.02 with 38 degree of freedom.



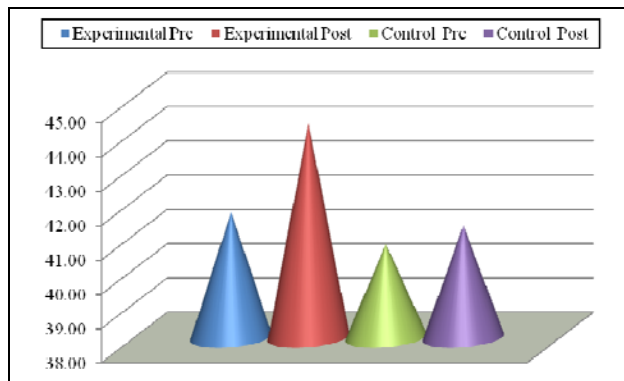
**Fig 3:** the graph showing the mean value of throwing between pre and post-test of experimental and control groups

**Table 4:** Comparison of base running between pre and post test of control and experimental groups.

Group	Test	Mean	SD	SE	MD	Ot	df	Tt
Experimental	Pre	41.667	3.309	0.968	2.600	2.686*	38	2.02
	Post	44.267	2.789					
Control	Pre	40.733	3.751	1.111	0.533	0.480	38	2.02
	Post	41.267	3.262					

Table-4 shows that the significant difference in base running between pre and post test experimental group. The obtained 't' value of 2.686 is more than the table value of 2.02 with 38 degree of freedom.

Table-4 shows that the no significant difference in base running between pre and post test control group. The obtained 't' value of 0.480 is less than the table value of 2.02 with 38 degree of freedom.



**Fig 4:** the graph showing the mean value of base running between pre and post-test of experimental and control groups

### Discussion on findings

It has been observed from the analysis of data that there is significant difference between the softball skill variables on experimental groups after the administration of training programme. The results showed that there is significant improvement within the groups. Hence training program of six weeks was adequate for batting, fielding, throwing and base running skill.

### Conclusion

Within the limitations of the study and from statistical analysis the following conclusion was drawn.

There was significant effect on subjects of batting, fielding, throwing and base running in softball through the statistical analysis after six weeks training programme.

In the light of results obtained and conclusions drawn, the following recommendations were made for future investigations and for practical applications. These are: The same study may be constructed with longer duration of training programme, The same study may be repeated on the other class of the society for different age groups, Coaches and physical education teachers are recommended to undertake this type of studies for selecting and planning the training programmes for the players and The result of this study can be used to get better and advance outcome.

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