



EFFECT OF SPECIFIC TRAINING ON SELECTED PHYSICAL FITNESS VARIABLES OF MALE INTERCOLLEGIATE VOLLEYBALL PLAYERS

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ABSTRACT

The present study is to find out the effect of specific training on the selected physical fitness variables of intercollegiate volleyball players. 40 male players who have represented the intercollegiate level Sports in Andhra Pradesh. The subjects will be between 18 to 24 years. They will be divided into two groups of twenty in each. One group will act as the experimental group and another will be as control group. The experimental group will undergo the specific training for 6 weeks 3 days per week. Each training session will be for one hour in the evening from 4.00 pm to 5.00 pm. To achieve the result, the collected data on following criterion measures namely physical fitness variables that is speed and agility. The standardized tests will be taken before and after the specific training. Speed will be tested using 50 meter dash run and agility will be tested using 5x10 shuttle run. The paired 't' test will be applied to analyzed the collected data and in all cases the criteria for the statistical significance will be set at 0.05 level of confidence.

Key Words: Speed & Agility

INTRODUCTION

Volleyball places high requirements on a player's speed, agility, upper-body and lower-body muscular power, and maximal aerobic power. Therefore, coaches and professionals involved in volleyball are interested in the potential effectiveness of different training regimes and improvements of those conditioning capacities are known to be important determinants of success. One of such training regimes is plyometric training. Plyometric training uses the physiological phenomenon in order to enhance the ability of the neuromuscular system. Due to the characteristics of the game, which involve repeated jumping, frequent sprinting and changes in directions, this training regime is a particularly popular method for fitness development in volleyball players.

STATEMENT OF THE PROBLEM

The present study was to find out the effect of specific training on the selected physical fitness variables of male intercollegiate volleyball players.

DELIMITATIONS

The following delimitations are considered for the study

1. This study is confined to forty intercollegiate male volleyball players who participated in intercollegiate sports in Andhra Pradesh
2. The subjects were selected only from the age group of 18 and 24 years.
3. Only selected physical fitness variables were chosen for this study
4. The duration of the experimental period was for six weeks.
5. The study is confined only to the selected specific training.

LIMITATIONS

The following limitations are considered for the study.

1. The factors like personal habits, life style, routine, diet, climatic conditions and environmental factors which might have had an effect on the results of this study could not be taken into consideration.
2. Hereditary, social and other psychological factors could not be controlled.

HYPOTHESES

1. It was hypothesized that there may be significant differences due to specific training on the selected physical fitness variables namely speed and agility.

SIGNIFICANCE OF THE STUDY

1. The study will be helpful to know the effect of specific training on selected physical fitness variables of male intercollegiate volleyball players.
2. The study will be helpful to prepare training schedule to improve the effect of specific training on the selected physical fitness variables of male intercollegiate volleyball players
3. The study will be helpful to realize volleyball players and coaches for their coaching purpose.

METHODOLOGY

SELECTION OF SUBJECTS

1. The purpose of the study was to find out the effect of specific training on the selected physical fitness variables of male intercollegiate volleyball players. For this purpose, 40 students were selected as subjects who participated in intercollegiate sports in Andhra Pradesh, by applying random sampling method. The age of the subjects ranged from 18 to 24 years.

SELECTION OF VARIABLES

INDEPENDENT VARIABLE

Specific group of exercises

DEPENDENT VARIABLES

- **PHYSICAL FITNESS VARIABLES**
 1. Speed
 2. Agility

**TABLE -1
SELECTION OF TESTS AND UNIT OF MEASUREMENTS**

Variables	Name of the test	Unit of measurements
Speed	50 Meters dash	seconds
Agility	5 X10 Meters Shuttle run	seconds

EXPERIMENTAL DESIGN

The selected subjects (N=40) were divided into two groups each consisting of twenty. The experimental group underwent the specific training for three days in a week for one hour from 4.00 pm to 5.00 pm for six weeks in total and the control group was not involved in any specific training but were of the investigator in engaged in their usual activities.

STATISTICAL TECHNIQUES

The following statistical procedures were employed to estimate the effect of specific training on the selected physical fitness variables of male intercollegiate volleyball players. 't' ratio was calculated to find out the significance difference between the mean of pre and post test of the group

Formulae

$$\text{Mean} = \frac{\sum X}{N} \quad 't' = \frac{DM}{\sigma DM}$$

DM – difference between the mean

σDM – standard error of the difference between means

**TABLE-II
TABLE SHOWING MEAN DIFFERENCE STANDARD DEVIATION
AND 't' VALUE OF EXPERIMENTAL AND CONTROL
GROUPS IN SPEED**

Group	Mean	Md	Std.deviation	Std.error of the mean	't'	Table value
Experimental pre-test	6.57	0.13	0.28	0.65	11.38*	2.14
Experimental post test	6.41		0.23	0.60		
Control pre test	6.63	0.04	0.33	0.91	1.48	2.14
Control post test	6.60		0.34	0.90		

*significant at 0.05 level

FIGURE-1

BAR DIAGRAM SHOWING PRE AND POST TEST MEAN VALUE OF EXPERIMENTAL GROUP AND CONTROL GROUP IN SPEED

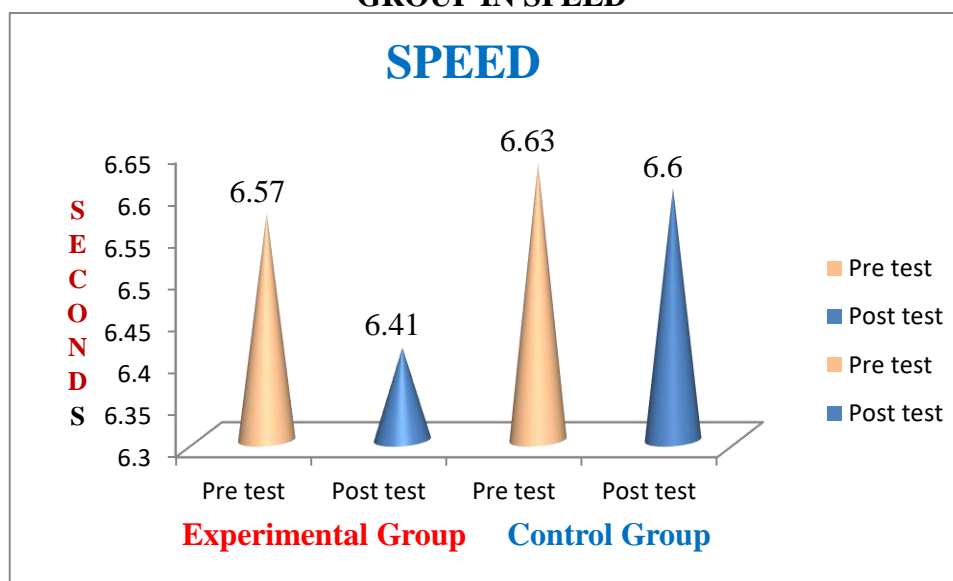


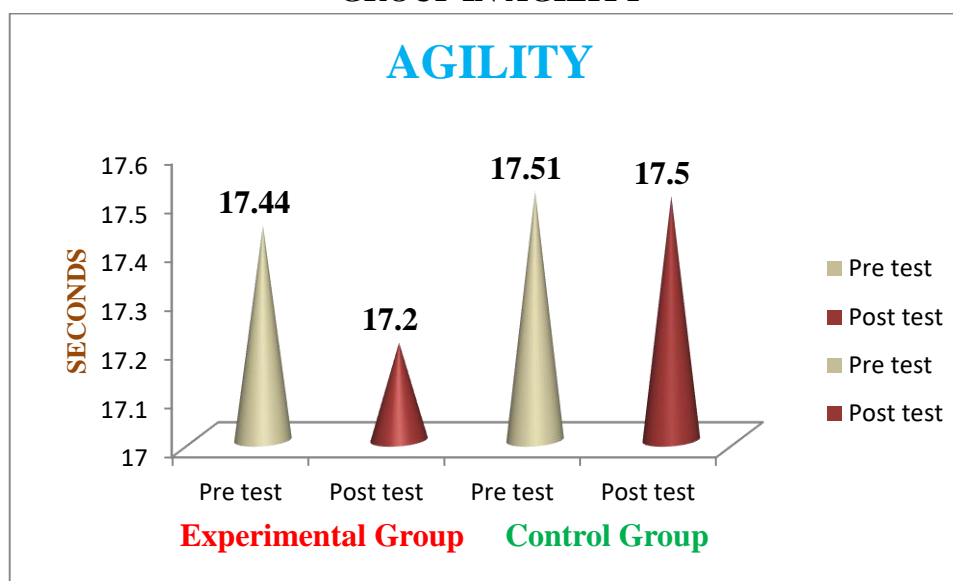
TABLE-III

TABLE SHOWING MEAN DIFFERENCE STANDARD DEVIATION AND 't' VALUE OF EXPERIMENTAL AND CONTROL GROUPS IN AGILITY

Group	Mean	Md	Std.deviation	Std.error of the mean	't'	Table value
Experimental pre-test	17.44	0.21	0.42	0.10	10.19*	2.14
Experimental post test	17.20		0.44	0.11		
Control pre test	17.51	0.03	0.67	0.17	1.86	2.14
Control post test	17.50		0.66	0.17		

*significant at 0.05 level

FIGURE-2
BAR DIAGRAM SHOWING PRE AND POST TEST MEAN VALUE
OF EXPERIMENTAL GROUP AND CONTROL
GROUP IN AGILITY



DISCUSSION ON FINDINGS

The result of the study shows that the experimental group that had undergone specific training and improved physical fitness variables namely speed and agility. This may be due to the effect of specific training.

From the result of the present study, it is concluded that the experimental group improved in physical fitness variables.

CONCLUSIONS

Based on the statistical analysis and the limitation of the study, and results the following conclusions are drawn.

- It was concluded that experimental group significantly improved on physical fitness variables namely speed and agility.

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