



## IMPACT OF SPECIFIC TRAINING ON SELECTED SPEED, EXPLOSIVE POWER AND MUSCULAR STRENGTH PARAMETERS AMONG SCHOOL MEN HANDBALL PLAYERS

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### ABSTRACT

The purpose of the present study was to investigate the Effect of specific training on speed, explosive power and muscular strength parameters among school men handball players. To achieve the purpose of the study thirty men players were selected from Schaffter Hr.Sec.School, during the year 2016-17. The subjects' age ranges from 14 to 18 years. The selected players were divided into two equal groups consists of 15 men players each namely experimental group and control group. The experimental group underwent specific training programmed for six weeks. The control group was not take part in any training during the course of the study. Speed, explosive power and muscular strength were taken as criterion variables in this study. Pre-test was taken before the training period and post- test was measured immediately after the six week training period. Statistical technique't' ratio was used to analyze the means of the pre-test and post test data of experimental group and control group. The results revealed that there was a significant difference found on the criterion variables. The significant difference was found due to specific training given to the experimental group on speed, explosive power and muscular strength when compared to control group.

**KEYWORDS :** .Specific Training, Speed, Explosive power and Muscular strength.

### INTRODUCTION

Sport specific training is simply fitness and performance training designed specifically for athletic performance enhancement. Training programs for athletic performance enhancement could include such areas as strength, speed, power, endurance, flexibility, mobility, agility, mental preparedness (including goal setting), sleep, recovery/regeneration techniques and strategies, nutrition, rehabilitation, pre-habilitation and injury risk reduction, (<http://www.finishfirstsports.com/sports-specific-training.html>).

Handball is a very strenuous body contact team sport that places heavy emphasis on running jumping, running speed and throwing, and substantial strength levels to hit, block, push and hold during game actions. The game of handball demands a high level of fitness that will enable the players to run strongly, to fake quickly off the mark in any direction to holding the ball, to pass accurately and to tackle efficiently throughout the game. Handball requires a high standard of physical fitness along with skills. Being physically fit for team handball includes endurance (aerobic and anaerobic), strength, flexibility, and the related skill factors of agility, balance, and coordination. Team handball is a 60-minute game of fast, continuous action. Being physically fit improves capacity to practice at a level closer to game like conditions. Although may run more than 3 miles during a game, short bursts of exertion challenge anaerobic endurance. Training aerobic capacity through long-distance running prepares you for the short-distance speed work that will improve your anaerobic endurance for practices and games. Whenever possible, include team handball in your physical conditioning exercises. Combining skill training and fitness training in a single exercise maximizes the use of your practice time. Every practice and game should include a 10 to 15 minute warm-up period to elevate your heart rate and increase your flexibility. The benefit of flexibility exercises increases when preceded by exercises that allow you to break a sweat. Remember to use a static stretch by assuming the stretch position, holding that position, than relaxing. Warming up decreases the chance of sustaining muscle and joint injuries. When you finish your workout, cool down by spending three to five minutes slowly jogging or walking to let your heart rate recover to its normal resting state. After walking, select a flexibility exercise for each major muscle group that you used in the training session. Include the hamstrings, quadriceps, calves, groin, shoulders, and back. Because the body is warm after training, stretching is much easier and helps prevent next-day soreness, **Reita and Mary, (1996)**.

### METHODOLOGY

For this purpose of the study thirty handball players were selected from Alagappa Hr.Sec.School,Karaikudi during the year 2016-17.The subject's age group between 14 to 18 years. All the subjects were tested on selected physical variable.The selected 30 subjects were divided in to two groups, namely experimental group and control group. Each

group consists of 15 players and each the subjects were pre tested for their physical variable. An intentional programmer of specific training experimental group and the control group was not given any experimental treatment. After the experimental period of six weeks, post-tests scores were obtained from all the two groups. The difference between initial and final scores on specific training physical variable considered the effect of specific training on selected physical variable among school level handball players.

### SELECTION OF VARIABLES

#### Independent variables

Specific training was selected as independent variable for this study. During the period of experiment, the experimental group has given specific training. The specific training was given for three alternate days in a week and for a period of six weeks. The control group was not given any treatment during this period of experiment.

#### Dependent variables

##### Physical variable

1. Speed
2. Explosive power
3. Muscular Strength

#### Criterion Measures

S. No	Physical Variables	Test Item	Unit
1	Speed	50 meters dash	Seconds
2	Explosive Power	Standing broad jump	Meters
3	Muscular Strength	Sit-ups	Numbers

#### Statistical Technique

The data collected from the subject on selected physical variable was statistically analyzed by using't' ratio, 0.05 level of confidence was fixed to test the level of significance.

#### ANALYSIS OF DATA

The data retraining to speed, quickness and agility for both experimental and control groups were tested by't' test. The level of significant was fixed at 0.05 levels.

**TABLE-I DIFFERENCE IN MEAN OF EXPERIMENTAL AND CONTROL GROUP IN SPEED (50 Meter Dash Means in Seconds)**

Groups	Mean		Mean Difference	S.D.	Standar d Error	't' ratio
	Pre	Post				
Experimental	7.11	6.92	.19	.22	.06	3.71
Control	7.10	7.12	.02	.18	.05	1.19

\*Significant at 0.05 level of confidence. df (14) is =2.15

An examination of table 4.1 shows that the obtained mean values of pretest and post test were 7.10, 7.12 respectively. The standard deviations were 0.20 and 0.18 and mean difference is 0.02 the obtained 't' ratio is 1.19 the required table value is 2.15 insignificance at 0.05 level. The obtained 't' ratio is lesser than the table value. It is found to be insignificant. An examination of experimental group shows that the obtained mean values of pre test and post test were 7.11, 6.92 respectively. The standard deviations were 0.19 and 0.22 and mean difference is 0.19 the obtained 't' ratio is 3.71 the required table value is 2.15 significance at 0.05 level. The obtained 't' ratio is greater than the table value. It is found to be significant.

**TABLE-II DIFFERENCE IN MEAN OF EXPERIMENTAL AND CONTROL GROUP IN EXPLOSIVE POWER (Standing Broad Jump Means in Meters)**

Groups	Mean		Mean Difference	S.D.	Standard Error	't' ratio
	Pre	Post				
Experimental	2.15	2.20	.06	.12	.03	2.79*
Control	2.17	2.16	.01	.08	.02	.38

\*Significant at 0.05 level of confidence. df (14) is =2.15

An examination of table 4.3 shows that the obtained mean values of pretest and post test were 2.17, 2.16 respectively. The standard deviations were 0.12 and 0.08 and mean difference is 0.01 the obtained 't' ratio is 0.38 the required table value is 2.15 insignificance at 0.05 level. The obtained 't' ratio is lesser than the table value. It is found to be insignificant. An examination of experimental group shows that the obtained mean values of pretest and post test were 2.15, 2.20 respectively. The standard deviations were 0.06 and 0.12 and mean difference is 0.06 the obtained 't' ratio is 2.79 the required table value is 2.15 significance at 0.05 level. The obtained 't' ratio is greater than the table value. It is found to be significant.

**TABLE-III DIFFERENCE IN MEAN OF EXPERIMENTAL AND CONTROL GROUP IN MUSCULAR STRENGTH (Sit-Ups Means in Maximum count per minute)**

Groups	Mean		Mean Difference	S.D.	Standard Error	't' ratio
	Pre	Post				
Experimental	19.46	22.13	2.67	2.97	.77	2.37*
Control	20.80	20.60	.20	3.31	.85	.14

\*Significant at 0.05 level of confidence. df (14) is =2.15

An examination of table III shows that the obtained mean values of pretest and post test were 20.80, 20.60 respectively. The standard deviations were 3.14 and 3.31 and mean difference is 0.20 the obtained 't' ratio is 0.14 the required table value is 2.15 insignificance at 0.05 level. The obtained 't' ratio is lesser than the table value. It is found to be insignificant. An examination of experimental group shows that the obtained mean values of pretest and post test were 19.46, 22.13 respectively. The standard deviations were 2.36 and 2.97 and mean difference is 2.67 the obtained 't' ratio is 2.37 the required table value is 2.15 significance at 0.05 level. The obtained 't' ratio is greater than the table value. It is found to be significant.

#### DISCUSSION ON FINDINGS

The investigator had a through and vision that specific training would improve handball players speed, explosive power and muscular endurance which in turn would help them to playing better. The investigator selected exercises that are specific training for handball players. To perform exercise the handball players should have better physical variable. It is a matter of interest how far specific training improves the handball players.

**Raghavendra, K., and Pushparajan, A. (2012)** investigated the study on effects of varied modalities of sports specific training on speed and explosive power of collegiate male handball players. They found that speed and explosive power can be improved during the varied modalities of sports specific training on collegiate male handball players.

#### CONCLUSIONS

Based on the results of the present study the following conclusions have been school boys.

1. It was concluded that there was significant improvement in selected physical variable of speed, explosive power and muscular strength due to specific training among school handball players.
2. The result of the study reveals that specific training would improve among school men on physical variable significantly.

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