



# EFFECTS OF SPECIFIC VOLLEYBALL TRAINING ON SELECTED CORPOREAL VARIABLES AMONG WOMEN VOLLEYBALL PLAYERS

S. Rajesh<sup>1</sup>, Dr. S. Veeramani<sup>2\*</sup>

<sup>1</sup> PhD, Research Scholar, Department of Physical Education, Annamalai University, Chidambaram, Tamilnadu, India.

<sup>2\*</sup> Associate Professor, Department of Physical Education, Annamalai University, Chidambaram, Tamilnadu, India.

## ABSTRACT

*The point of the present study was to find out the effect of specific volleyball training on selected corporeal variables among women volleyball players. To achieve the purpose of the study women volleyball players were selected from Government Arts and Science college of Mayiladuthurai District, Tamil Nadu, India. The subject's age ranges from 18 to 25 years. The selected subjects were divided into two equal groups consists of 15 volleyball women each namely experimental group and control group. The experimental group underwent a specific volleyball skill training programme for twelve weeks. The control group was not taking part in any training during the course of the study. Speed, agility and explosive power was taken as criterion variable in this study. Pre-test was taken before the training period and post- test was measured immediately after the twelve-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 difference is found due to specific volleyball skill training given to the experimental group on Speed, agility and explosive power when compared to control group.*

**Key words:** *Specific Volleyball Training, Corporeal Variables, Volleyball Players.*

## INTRODUCTION

Sports training in a nutshell means preparing for a performance and it helps the athletes to build strength, endurance it gradually improves their skill levels and their strengthen confidence. As simple it may be sound for formulating the systematic training method that fulfils all the physical goals to be perfect. The training program has a significant impact on the desired outputs and the training must be relevant to the purpose and sport that intend to pursue. Volleyball is a gathering action where two gatherings of six players

are secluded by a net. Each gathering endeavours to score centres by building up a ball in the other gathering's court under composed rules. It has been a piece of the power program of the Summer Olympic Games since 1964. The all out guidelines are expansive. In any case, just, play proceeds as follows: a major part in one of the gatherings begins a 'rally' by serving the ball (tossing or conveying it and a while later hitting it with a hand or arm), from behind as far as possible line of the court, over the net, and into the tolerating gathering's court. As volleyball coordinate incorporates a more noteworthy measure of aptitude execution. Specific volleyball skill training might get someone in general shape and have them improve as an athlete somewhat. In sport, the team training refers the set of physical exercise used to develop either physical or motor fitness aspects of a player. When the training for players at higher level or above the basic level, they have to trained with specific objectives in sport, the training program should designed specifically based on the components that are needed for the particular skill or technique in sport (Stone, 2000). Thus such type of Specific skill training program is a need for the player to excellent in sport. Thus the present study has been carried out to study the effect of specific volleyball skill training on selected corporeal of volleyball players

### **Selection of Subjects**

The point of the present study was to find out the effect of specific volleyball training on selected corporeal variables among women volleyball players. To achieve the purpose of the study women volleyball players were selected from Government Arts and Science college of Mayiladuthurai District, Tamil Nadu, India.

### **Selection of variable**

#### **Independent Variable**

- Specific Volleyball Skill Training

#### **Dependent Variables**

- Speed
- Agility
- Explosive power

## **EXPERIMENTAL DESIGN AND IMPLEMENTATION**

The selected subjects were divided into two equal groups consists of 15 volleyball women each namely experimental group and control group. The experimental group underwent a specific volleyball skill training programme for twelve weeks. The control group was not taking part in any training during the course of the study. Speed, agility and explosive power was taken as criterion variable in this study. Pre-test was taken before the training period and post- test was measured immediately after the twelve-week training period.

### **Statistical Technique**

The 't' test was used to analysis the significant differences, if any, difference between the groups respectively.

## Level of Significance

The 0.05 level of confidence was fixed to test the level of significance which was considered as an appropriate.

## ANALYSIS OF THE DATA

The significance of the difference among the means of the experimental group was found out by pre-test. The data were analysed and dependent 't' test was used with 0.05 levels as confidence.

## RESULTS

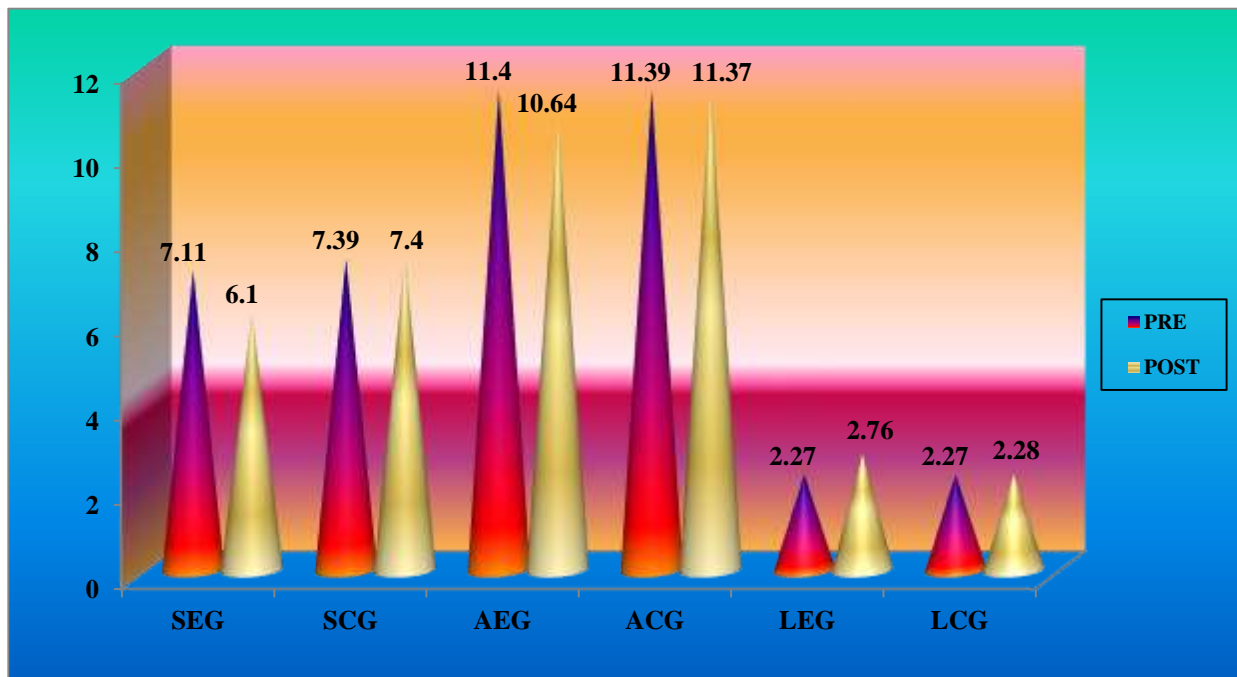
**Table-I**

**Comparison of Mean, and 't'-Values of Corporeal Variables between Pre & Post Test among Experimental and Control Groups**

S. No	Physical Fitness Variables	Groups	Test	Mean	't' Values
1.	Speed	Experimental group	Pre Test	7.11	12.83*
			Post Test	6.10	
		Control group	Pre Test	7.39	0.51
			Post Test	7.40	
2.	Agility	Experimental group	Pre Test	11.40	6.16*
			Post Test	10.64	
		Control group	Pre Test	11.39	1.78
			Post Test	11.37	
3.	Leg Explosive Power	Experimental group	Pre Test	2.27	3.84*
			Post Test	2.76	
		Control group	Pre Test	2.27	0.53
			Post Test	2.28	

\*Significant at 0.05 level of confidence

Table-I reveals that the obtained mean values of pre test and post test of experimental group for speed, agility and leg explosive power were 7.11 and 6.10, 11.40 and 10.64, 2.27 and 2.76 respectively; the obtained 't' ratio were 12.43, 6.16 and 3.84 respectively. The tabulated 't' value is 2.14 at 0.05 level of confidence for the degree of freedom 14. The calculated 't' ratio was greater than the table value. It is found to be significant change in speed, agility and leg explosive power of the volleyball players. The obtained mean values of pre test and post test scores of control group were 7.39 and 7.40, 11.39 and 11.40, 2.27 and 2.28 respectively, the obtained 't' ratio was 0.51, 1.78 and 0.53. The required table value is 2.14 at 0.05 level of confidence for the degree of freedom 14. The calculated 't' ratio was lesser than the table value. It is found to be insignificant changes in speed, agility and leg explosive power of the volleyball players. The mean values of selected physical fitness variables among experimental group and control group are graphically represented in figure 1.



**Figure-1: Bar Diagram Showing the Pre Test and Post Test on Selected Corporeal Variables of Plyometric and Control Groups (SEG, SCG, AEG, ACG, LEG & LCG)**

## DISCUSSION ON FINDINGS

The results of the study indicated that the selected corporeal variables such as speed, agility and leg explosive power were improved significantly after undergoing specific volleyball skill training. The changes in the selected parameters were attributed the proper planning, preparation and execution of the training package given to the players. The findings of the present study had similarity with the findings of **Abdul Halik (2021)**, **Jenith (2021)**, **Ooraniyan (2021)** and **S Senthil Kumaran (2018)**. The results of the present study indicates that the specific volleyball training methods is appropriate protocol to improve speed, agility and leg explosive power of inter-collegiate level women volleyball players. From the result of the present study it is very clear that the selected corporeal variables such as speed, agility and leg explosive power improvement significantly due to specific volleyball training.

## CONCLUSIONS

Based on the findings and within the limitation of the study

1. It was noticed that practice of specific volleyball skill training helped to improve selected corporeal variables of inter-collegiate level women volleyball players.
2. It was also seen that there is progressive improvement in the selected criterion variables of experimental group of inter-collegiate level women volleyball players after twelve weeks of specific volleyball training programme.

Further, it also helps to improve selected corporeal variables such as speed, agility and leg explosive power.

**REFERENCE**

1. Abdul Halik, Senthil Kumaran, Arun Kumar, Rajesh, Princy. Effect of Complex Training on Strength Endurance and Agility among Basketballers. *International Journal of Research Publication and Reviews* 2021; 2(8): 157-166.
2. Jenith, Senthil Kumaran, Kodeeswaran. Influences of Reaction Time and Agility Responce to Shadow Training among Tennis Players. *EPR International Journal of Multidisciplinary Research* 2021; 7(5): 38-41.
3. Senthil kumaran. Impacts of Plyometric Training on Selected Physical Fitness Variables among Basketball Players. *International Journal of Yoga, Physiotherapy and Physical Education* 2018; 3(4): 52-54.
4. Ooraniyan and Senthil Kumaran. Effect of Game Specific Aerobic Training on Motor Fitness Components among Handball Players. *International Journal of Yoga, Physiotherapy and Physical Education* 2018; 3(4): 68-70.
5. Senthil Kumaran (2018) Impacts of plyometric training on selected physical fitness variables among basketball players, *International Journal of Yoga, Physiotherapy and Physical Education*, 3(4): 52-54.
6. Annadurai R (2014) Effect of swiss ball and plyometric training programme on selected physical variables and skill performance of inter collegiate men volleyball players. *Academic Sports Scholar*, Volume. 3, Issue. 5.
7. Hardeep Kaur Saini and Dr. Vikas Bhardwaj (2018) Effect of plyometric and circuit training on anthropometry of Punjab state basketball players. *International Journal of Physiology, Nutrition and Physical Education*, Vol. 3, Issue 1, Part B.
8. Keerthi Kumar M, Sundar Raj (2016) Effect of plyometric and weight training programs on vertical jump in female basketball players. *International Journal of Physical Education, Sports and Health*, Vol. 3 Issue 3, Part A.
9. Nithin Rajan and Ahamed Faiz PA (2018) Plyometric Training on Selected Bio Motor Abilities of Basketball Players. *International Journal of Physiology, Nutrition and Physical Education*, Vol. 3 Issue 1, Part W.
10. R.Varathan (2018), Effect of plyometric training on speed, speed endurance and agility of sedentary college men. *International Journal of Physical Education, Sports and Health*, Vol. 5 Issue 2, Part B.
11. Veeramani (2015) Effect on package of low impact plyometric exercise on selected performance related fitness variables among volleyball players. *International Journal of Physical Education*, Volume. 2(1), pp. 20-22.
12. D.Bala Krishna (2016), Effects of skill training and plyometric training on selected skill performance variable (service) among school volleyball players *International Journal of Physical Education, Sports and Health* Vol. 3 Issue 2, Part D.

13. P.Selvakumar and Dr. G Palanisamy (2017), Effect of strength and plyometric training on selected skill performance variables of male volleyball players International Journal of Physical Education, Sports and Health, Vol. 4 Issue 3, Part B.
14. Dr. Bhoj Ram Rawte, Krishna Gopal Rai, Buddhadev Kandar (2021) Effect of plyometric exercises on speed in football university players. Int J Phys Educ Sports Health 8(1):67-69.
15. Towseef Ahmad, Dr. Ramneek Jain (2020) Effects of lower body plyometric training in young Kashmiri female volleyball players. Int J Phys Educ Sports Health 7(6):151-156.
16. Nagamuni Bokkasam, Dr. I Lillypushpam (2020) Effect of plyometric and circuit training on selected muscular strength and explosive power among engineering college volleyball players. J Sports Sci Nutr 1(2):32-36.
17. Manishaben Jaiswal, "CRYPTOCURRENCY AN ERA OF DIGITAL CURRENCY", International Journal of Creative Research Thoughts (IJCRT), ISSN:2320-2882, Volume.8, Issue 1, pp.60-70, January 2020, Available at :<http://www.ijcrt.org/papers/IJCRT2001010.pdf>
18. Guruvupandian and Dr. K. Murugavel. Influence of High Intensity Plyometric Training Program on Motor Fitness Variables of Intercollegiate Male Handball Players. International Journal of Applied Research 2017; 3(6): 536-539.
19. Abraham B. Comparative effects of selected motor components of school level basketball players on plyometric, circuit training and circuit breaker programmes. International Online Multidisciplinary Journal Review of Research 2015;3(7):1-4.
20. Climstein M. The effect of six weeks of squat, plyometric and squat-plyometric training on power production. The Journal of Strength & Conditioning Research 1992;6(1):36-41.
21. Behpour N. Comparison of the effect of plyometric and weight training programs on vertical jumps in female basketball players. World Journal of Sport Sciences 2012;7(2):99-104.
22. Mehdipou A. The effect of plyometric circuit exercises on the physical preparation indices of elite handball player. Facta universitatis-series: Physical Education and Sport 2012;10(2):89-98.
23. Maviş M. The effect of an 8-week plyometric training program on sprint and jumping performance. Serbian Journal of Sports Sciences 2013;7(1-4):45-50.
24. Sampaio J. Short-term effects of complex and contrast training in soccer players vertical jump, sprint, and agility abilities. The Journal of Strength & Conditioning Research 2010;24(4):936-941.
25. Raj Kumar (2015) the effect of 6 week plyometric training program on maximal vertical jumping height of collegiate level soccer players. Int J Appl Res 1(8):385-389.