



Relative Importance of Bio-Motor Variables Among Women Volleyball Players

KEYWORDS

Spikes, Setters, All-rounder's, Speed

M. UMA MAHESWARI,

Ph.D Scholar, Department of Physical Education,
H.H. The Rajah's College (Auto) Pudukkottai,
Tamilnadu, India.

Dr. A.S. NAGESWARAN

Associate Professor, Department of Physical Education,
H.H. The Rajah's College (Auto) Pudukkottai,
Tamilnadu, India.

ABSTRACT The purpose of the study was to analysis the relative importance of Bio-Motor Variables among women Volleyball players. To achieve this purpose of the study one hundred and twenty (N=120) women Volleyball were selected. Among them, forty Spikes (n=40), Setters (n=40) and All-rounder's women Volleyball from Tamilnadu Universities who had participated in the Inter-collegiate Volleyball tournament during the year 2014-2015 were selected as subjects. The age of the subjects were ranged from 18 to 24 years. Among the Bio-Motor Variables only Speed selected as criterion variable. Speed was measured by 30 Meters Run Test. The data collected from the three groups was statistically analyzed by using Analysis of variance (ANOVA). Scheffe's post hoc test was applied to determine the significant difference between the paired means. In all the cases 0.05 level of confidence was fixed significance was fixed. The results of the study showed that there was a significant difference among Spikes, Setters and All-rounder's.

INTRODUCTION

Sport serves vital and important role in social and cultural functioning for each individual. In the last few decades, sports have gained tremendous popularity all over the globe. Now a day, there has been an ever increasing focus on attention on the study of individual differences in research. In this regard a large number of researchers are engaged in comparing the motor performance of different sections of population in terms of race or otherwise various regional backgrounds. The net results of their finding have been contradictory and there is no unanimity among the research scholars regarding inter-relationship between or the degree of influence.

The players are creating and breaking new records in today's competitive sports. The aim of games and sports is fast suited with every field. The level of physical fitness is increasing day to day because of development of science and technology. Volleyball is a game played indoor or outdoor by teams whose members seek to score points in the course of hitting a ball back and forth across a net. It is a popular game in the matter of techniques, blocking as well as jumps and smashes play a crucial part in volleyball (Marianne, 1979).

Successful game of volleyball needs ability of the players to produce good speed, agility, flexibility and unbelievable power during the play of game. Skills like serving, passing, attack and block are of utmost importance for a player at any level of play. Not merely skills but also physical and anthropometric measurements of a player will contribute to the success of the player as well as the team. The performance of athletes, players, sportsmen at various National and International competitions has been poor and this is of great concern especially to the coaches, physical educationists, sports scientists and researchers. Optimal performance thus requires a combination of technical and tactical abilities as well as a high degree of physical fitness. Efforts, to improve the standard of our sportsmen have achieved an insignificant success in this respect (Astrand, and Rodahl, 1986).

METHODOLOGY

To achieve this purpose of the study one hundred and twenty (N=120) women Volleyball players were selected. Among them, forty Spikes (n=40), Setters (n=40) and All-rounder's(n=40) women Volleyball from Tamilnadu Universities who had participated in the Inter-collegiate Volleyball tournament during the year 2014-2015 were selected as subjects. The age of the subjects were ranged from 18 to 24 years. Among the Bio-Motor Variables only Speed was selected as criterion variable and it was assessed by 30 meters run test.

ANALYSIS OF THE DATA

The data collected from the Spikes, Setters and All-rounder's on selected Criterion variables were statistically examined by analysis of variance (ANOVA) was used to determine differences, if any among the means on selected criterion variables separately. Whenever they obtained f-ratio value was significant the Scheffe's test was applied as post hoc test to determine the paired mean differences, if any. In all the cases 0.05 level of confidence was fixed significance was fixed.

The Analysis of variance (ANOVA) selected Bio-Motor Variables such as Speed have been analyzed and presented in Table -1.

Table – 1

Values of Analysis of Variance on the Means obtained in form of Spikes, Setters and All-rounder's of Volleyball players on selected Bio-Motor Variable

Certain Variable	Volleyball Players			Source of Variance	Sum of Squares	df	Mean Squares	'F' Ratio
	Spikers	Setters	All-Rounder's					
Speed	4.61	4.52	4.11	Between	5.80	2	2.90	41.43*
				With in	8.20	117	0.07	

* Significant at .05 level of confidence
(The table value required for Significance at 0.05 level with

df 2 and 117 is 3.05)

Table-1 shows that the mean value of Speed for Volleyball Spikers, Setters and All Rounder's were 4.61, 4.52 and 4.11 respectively. The obtained F value 41.43 for the mean is more than the table value 3.05 for df 2 and 117 required for significance at 0.05 level of confidence. The results of the study indicate that there is a significant difference among the means values of Volleyball Spikers, Setters and All Rounder's on Speed.

To determine which of the paired means had a significant differences, Scheffe's test was applied as Post hoc test and the results are presented in Table-2.

Table - 2
Ordered Scheffe's Post Hoc on Speed among Volleyball players

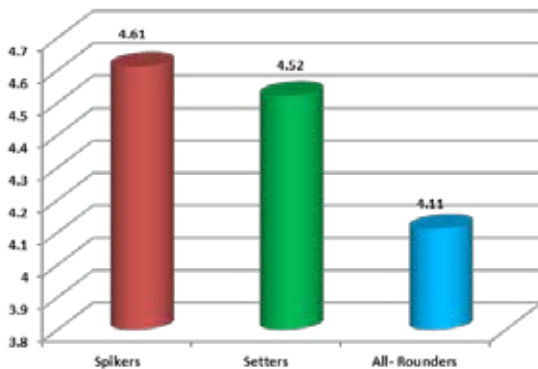
Certain Variable	Volleyball Players			Mean Difference	Confidence Interval
	Spikers	Setters	All-Rounder's		
Speed	4.61	4.52		0.09*	0.06
	4.61		4.11	0.50*	0.06
		4.52	4.11	0.41*	0.06

* Significant at .05 level of confidence

Table-2 shows that the mean for differences on Spikers and Setters, Spikers and All Rounder's and Setters and All Rounder's on Speed were 0.09, 0.50 and 0.41 respectively. The values are greater than the confidence interval value 0.06, which shows significant differences at 0.05 level of confidence.

The means values of Spikers, Setters and All Rounder's on Speed was graphically represented in the Figure -1.

Figure 1
Means Values of Spikers, Setters and All Rounder's on Speed



CONCLUSION

Based on the results of the study the following conclusions were drawn.

- There was a significant difference among women Volleyball Spikers, Setters and All Rounder's on Speed.
- Volleyball all rounders was found to be better than the Spikers and Setters in Speed.

REFERENCES

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