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Analysis of Motor Fitness Variables among South – Zone Inter University Volleyball Players

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Abstract

The purpose of the study was to analyse the selected motor fitness variables among south zone inter-university volleyball players. To achieve the purpose of the study 100 male Inter-University Volleyball players as subjects and their age ranged between 18 and 25. For the purpose of the study the players were classified namely setters (n=21), attackers (n=42) and libero (n=37). The data was collected during the South Zone Inter-University Volleyball Tournament held at Andhra University, Visakhapatnam. Speed was assessed by 50 metres run, explosive power was assessed by standing broad jump and agility was assessed by shuttle run test. To test the significance of the mean difference among the volleyball players analysis of variance (ANOVA) was used. In case of any significance of mean difference on the criterion measure, to find out which pair of group was better among the others, the Scheffe's post - hoc test was applied. The mean differences among setters, attackers and libero on speed showed insignificant differences among south zone inter-university volleyball players. The mean differences among setters, attackers and libero on explosive power showed insignificant differences among south zone inter-university volleyball players. The mean differences on agility between setters & attackers and setters & libero showed significant difference and in case of attackers & libero showed insignificant difference.

Keywords: Speed, Explosive Power, Agility, Volleyball Players.

Introduction

Volleyball through history has also turned into a sport that students enjoy. Many high schools and colleges have teams that compete against other high schools and colleges or on intramural or club teams. Volleyball has also been adapted so that people with disabilities can enjoy the sport. The great thing about volleyball is that it can be adapted however the players would like, the net can be lowered, court dimensions can change, and the game can be played just about anywhere. Although there has been some varying rules throughout the history of volleyball, today's competitive world of volleyball has strict rules. Regardless of the level of play, it is important to build both individual and teamwork skills. Building individual skills is important, but if the teamwork skills are not built it can be the difference between a defeat and victory. Teams should be able to communicate and work together to maximize each play. As the history of volleyball progressed, volleyball became a much more organized sport and also gained more recognition. It was a very popular game because it was cheap to play– players did not have to worry about purchasing rackets or any other equipment. Also, it's simplicity made it adaptable to many environments, teams could play indoor volleyball or outdoor volleyball. As the sport of volleyball became more competitive, players began to develop new techniques to stay ahead in the game. These new techniques helped out individual players and also the team as a whole. Strategies were developed to unite the team and volleyball drills were put together in practices in order to bring the unity into the volleyball teams.

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Methodology

The purpose of the study was to analyse the selected motor fitness variables among south zone inter-university volleyball players. To achieve the purpose of the study 100 male Inter-University Volleyball players as subjects and their age ranged between 18 and 25. For the purpose of the study the players were classified namely setters (n=21), attackers (n=42) and libero (n=37). The data was collected during the South Zone Inter-University Volleyball Tournament held at Andhra University, Visakhapatnam. Speed was assessed by 50 metres run, explosive power was assessed by standing broad jump and agility was assessed by shuttle run test. To test the significance of the mean difference among the volleyball players analysis of variance (ANOVA) was used. In case of any significance of mean difference on the criterion measure, to find out which pair of group

was better among the others, the Scheffe's post - hoc test was applied.

Table I. Mean and standard deviation of selected motor fitness variables among volleyball players

Sl.No	Positions	Variables	Mean	SD (±)
1	Setters	Speed	7.21	0.54
		Explosive Power	1.86	0.21
		Agility	10.74	1.25
2	Attackers	Speed	7.15	0.75
		Explosive Power	1.84	0.23
		Agility	10.56	1.34
3	Libero	Speed	7.23	0.34
		Explosive Power	1.88	0.84
		Agility	10.57	1.31

The mean and standard deviation of selected motor fitness variables among volleyball players were numerically presented in the above table.

Table II. Analysis of variance of selected motor fitness variables among volleyball players

Sl. No	Variables	Source of variation	Sum of Squares	df	Mean Squares	F-value
1	Speed	BG	0.01	2	0.005	2.42
		WG	0.20	97	0.002	
2	Explosive Power	BG	0.87	2	0.43	1.72
		WG	24.53	97	0.25	
3	Agility	BG	8.58	2	4.2	33.18*
		WG	12.54	97	0.12	

***** P > 0.05 Table F, df (2,97) (0.05) = 3.09

In table - II, the results of analysis of variance on respect for agility (33.18) was greater than the table value of 3.09 indicating that it was significant (P>0.05) for the degrees of freedom (2,97) at 0.05 level of confidence. Since the F value was significant, the scheffe's post-hoc test was further computed to find out which pair of position was better among others and the results are tabulated in the table - III. In case of speed (2.42) and explosive power (1.72) were lesser than the table value of 3.09 indicating that it was significant (P<0.05) for the degrees of freedom (2,97) at 0.05 level of confidence.

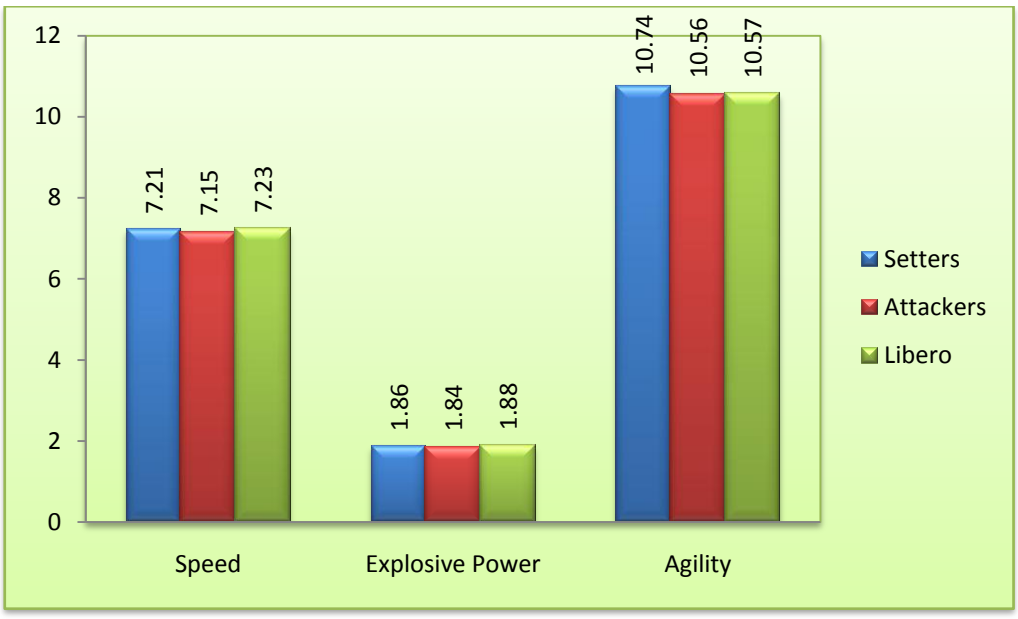
Table III. Scheffe's post-hoc test for mean differences between the setters, attackers and libero on selected motor fitness variables among volleyball players

Sl.No	Variables	Mean Difference			CI
		1 vs 2	1 vs 3	2 vs 3	
1	**Agility**	0.18	0.17	0.01	0.15

1= Setters, 2= Attackers, 3= Libero

From the table - III, it can be seen that the mean differences of setters and attackers (0.18), attackers and libero (0.17) which was significant at 0.05 level of confidence. The mean differences of attackers and libero (0.01) which was insignificant at 0.05 level of confidence.

Figure I. Mean values of selected motor fitness variables among volleyball players



Conclusions

1. The mean differences among setters, attackers and libero on speed showed insignificant differences among south zone inter-university volleyball players.
2. The mean differences among setters, attackers and libero on explosive power showed insignificant differences among south zone inter-university volleyball players.
3. The mean differences on agility between setters & attackers and setters & libero showed significant difference and in case of attackers & libero showed insignificant difference.

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