

A COMPARATIVE STUDY ON ANTHROPOMETRIC VARIABLES AND KINESTHETIC SENSE BETWEEN VOLLEYBALL AND FOOTBALL PLAYERS

(Received on: 17 June 2014, Reviewed on: 30 July 2014 and Accepted on: 13 Sep 2014)

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Abstract

The world of games and sports has crossed many milestones, as a result of different achievements in general and their application in the field of sports in particular. Scientific investigation into performance of sportsman has been playing an increasingly importance role to attain excellence of performance in different sports. Now the sportsman has been able to give outstanding performance because of involvement of new scientifically substantiated training methods and means of execution of sports exercise such as sports techniques and tactics. The purpose of the study was to investigate the difference on Anthropometric and the kinesthetic sense between state level volleyball and Football players. For the purpose of the study 20 state level volleyball player were selected from Hooghly and North 24pgs District, West Bengal and 20 state level Football players were selected from Burdwan, Bankura, North24pgs District, West Bengal. The age of the subjects were in between 19-22 year were selected as the subjects for this study. Arm length, leg length, Waist girth, Calf girth and kinesthetic sense were considered as the variables of the study. Student 't' test was applied to calculate the collected data at 0.05 level of significance. The result showed that there was no significant difference in Calf girth between state level volleyball players and Football players and significant different in Arm length, leg length, Waist girth, kinesthetic sense between state level volleyball players and Football players.

Keywords: Arm length, leg length, Waist girth, Kinesthetic sense, Calf girth.

Introduction

The phenomenon testing of athletes has always been a popular endeavor. There are numerous factors which are responsible for the performance of a sportsman. Performance in any game or sports not only depends on physiological, psychological, sociological and scientific training factor but also depends on good physique, Anthropometry, body composition, endurance, flexibility, good reaction time, co-ordination, agility, speed, strength and good body balance. Anthropometry is the branch of anthropology that is concerned with the measurement of human body. The definition has confined to the kind of measurements commonly used in associate in physical performance with body build. Anthropometry involves the measurement of

external part of the body, including body diameters; body circumferences somatic types. Physical fitness is a series of measures of physical and physiological characteristics that define the risk of premature development of diseases or morbidity and which are associated with a sedentary lifestyle, or are those components of physical fitness that are affected by routine activity and are related to health status.

Anthropometrical and kinesthetic sense play an important role in deciding the particular build of the body with various measurements of the segments of the body it has also its importance in the field of Authors games. Along with the other components one of the most important component is the perception ability or kinesthetic sense which also plays a major role. A sportsman can compete effectively only by a perception mastery of the technique. Kinesthetic perception abilities enable the sportsman to do a group of movements with better quality and effect. The Researcher in the present study made an effort to test this hunch and the role of Anthropometrical measurements and kinesthetic sense of Volleyball players and Football players.

Specificity of testing is rewered when performance is to be evaluated. Sports specific assessments are useful in providing information concerning an athlete's ability to participate in sports and additional information can be gained on possible ways to improve performance and prevent injuries. Assessments are also often used to optimize training and in the selection of teams for competition and also prepaid proper factor.

Methodology

The objective of the study was to investigate the selected Anthropometrical and the kinesthetic sense between state level volleyball and Football players. For the purpose of the study 20 state level volleyball player were selected from Hooghly and North 24pgs District and 20 state levels Football players were selected from Burdwan, Bankura, North24pgs District. The age of the subjects were 19-22 year.

Arm length and leg length was measured with the help of Anthropometry road and was measured to the nearest centimeter and millimeter.

Waist girth and Calf girth was measured with the help of measuring tape and was recorded in nearest centimeter and millimeter.

Distance perception jump was taken to measure the kinesthetic sense and was measured to the nearest centimeter.

To compute all the results Students't ' test was employed at 0.05 level of Significance.

Finding

TABLE-1
COMPARISON AMONG VOLLEYBALL AND FOOTBALL PLAYERS IN
RELATION WITH THEIR SELECTED VARIABLES

VARIABLE	MEAN		STANDARD DEVIATION		T-RATIO
	VOLLEY BALL	FOOT BALL	VOLLEY BALL	FOOT BALL	
Arm Length	78.6	68.2	4.99	5.94	5.87*
Leg Length	100.8	95.1	6.38	3.70	5.37*
Waist Girth	71.35	74.6	2.59	2.57	3.89*
Calf Girth	31.6	32.65	2.47	1.59	1.56
Kinesthetic Sense	1.38	2.08	.764	.90	2.60*

*Significant at $t_{0.05}(38) = 2.021$

It is evident from Table 1 shows that the mean and standard deviation between state level volleyball players and state level Football players. On Arm Length has been found 78.6 ± 4.99 and 68.2 ± 5.94 , the mean and standard deviation of Leg Length has been found 100.8 ± 6.38 and 95.1 ± 3.70 the mean and standard deviation of Waist Girth has been found 71.35 ± 2.59 and 74.6 ± 2.57 , and the mean and standard deviation of Calf Girth has been found 31.6 ± 2.47 and 32.65 ± 1.59 and the mean and standard deviation of Kinesthetic sense has been found $1.38 \pm .764$ and $2.08 \pm .90$.

The 't' value of Arm Length has been found 5.87* which is higher than tabulated value is signifying. In Leg Length has been found 5.37* also higher than tabulated value is signifying. The 't' value of Waist Girth has been found 3.89* which is also significant. In Kinesthetic sense 2.60* which is also significant and the 't' value of Calf Girth is 1.56 which is also not significant.

Discussion of Finding

From the finding of this study it has been observed that there was no significant difference found in Calf Girth between state level volleyball and state level football players in relation to anthropometric variables. But the football player having higher Garth of calf due to their demand of game. In author hand the state level volleyball players were found greater in leg length, arm length and significant difference between state level volleyball and football players. In Volleyball requires more vertical jump and that way it required different training method which is mainly depend upon more weight training in different forms and polymeric training. Where the football players also requires weight training and a training method which mainly focus on agility and speed endurance. Nature and requirement of the game demand different types of physique and different training programme that is the reason of difference. The significant difference was found in Waist Girth

between state level volleyball and Football players. In waist girth state level football players had shows superior than the state level volleyball players due to the nature of game and also training schedule and also during the play. They have required movement in different direction as much as quickly but volleyball player have required front and side movement and it reflect in the result. The results of the study showed that there was significant difference between volleyball and Football players in kinesthetic sense. It may be due to the similarity of the two sports which requires more cardio vascular endurance. But research have shown that there is significant difference between small area sports and large area sports in which small area sports are better in kinesthetic sense than large area sports. The nature of volleyball and also training schedule demand more Kinesthetic sense than the football player and that is affected on the result.

Conclusion

- No Significant difference was found in case of Calf Girth between state level volleyball and state level football players.
- Significant difference was found in case of leg length between state level volleyball and football players.
- Significant difference was found in case of arm length between state level volleyball and football players.
- Significant difference was found in case of Waist Girth between state level volleyball and football players.
- Significant difference was found in case of kinesthetic sense between state level volleyball and football players.

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