



A Comparative Study of Physical Fitness Variables of male Volleyball Players and Football Players

Kohli Keshav¹ and Singh Harmandeep²

¹Guru Nanak Dev University, Amritsar, Punjab, INDIA

²Department of Physical Education, Khalsa College Public School, Amritsar, Punjab, INDIA

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Abstract

The study was conducted to compare the physical fitness of Volleyball and Football players of Khalsa Public School, Amritsar, Punjab, INDIA. For this study 15 football (Age 17 ± 0.845) and 15 volleyball players (age 16.866 ± 0.833) were selected. Physical fitness variables were strength, endurance, agility, speed, flexibility. The tests taken to measure these were pull ups, sit ups, shuttle run, 50 m dash and 600 m run. Data was analyzed by using t-test at 0.05 significance. Analyzed data showed that there was no significant difference in pull ups, sit ups, 50 m dash, and 600 m run, but there was a significant difference between the two groups on the basis of shuttle run performed by them.

Keywords: Football players, volleyball players, strength, speed, endurance, agility, flexibility.

Introduction

Physical fitness plays a very important role in an normal individual as well as in an individual who is there participating in some kind of sports events. There are different kinds of sports and games which are performed all over world some are related to each other but some are entirely different. So to perform there different kind of sports event physical fitness is an essential component which should be possessed by a player, individual has lacked his physical fitness due many new inventions and now is totally dependent upon various machines for his daily works, yes its true that it saves times but at last these has some sort of adverse effects on physical fitness and wellbeing of an individual. To improve physical fitness of an player training plays a very important role, as the techniques which are given in training to a player improves the players performance give positive effects to his performance in events. The ability of a sportsmen to bear things play a vital role in his performance.

Physical fitness is a very important concept of physical education and cant be neglected, it is a very important determinant, Harre¹, for a high level of efficiency in techniques and tactics in most sports, a high level of physical fitness is most important. So for making selection in sports physical fitness is the most important factor and cant be neglected, Suresh and Parkash² made an investigation to compare physical fitness variables and found that Mysore district boys were superior to physical fitness variables compared to other district boys. In another similar study V.

Gaurav et al³ found in an investigation that individual games athletes had significantly higher muscular strength, agility, power, speed and cardiovascular endurance ($p < 0.01$) than team games athletes. Further investigations are needed on the above studied variables along with physiological variables to assess relationships among them and with performances in team games and individual games athletes.

Methodology

The study was based on physical fitness comparison between two groups, 15 volleyball and 15 football players were selected and following tests were performed to measure the physical fitness variables: 50m Dash test - To measure speed, Pull ups - To measure strength, 600m run test - To measure endurance, Shuttle run (4 x 10m) test -To measure agility, Sit ups - To measure abdominal strength and flexibility.

Results and Discussion

The data collected was analysed but taking significance value of ($p = 0.05$). The analyses shows that the was no significance difference between two groups on the basis of pull ups ($p = 0.5$), sit ups ($p = 0.253$), 50m dash ($p = 0.108$) and 600m run ($p = 0.471$) but there was a significant difference between two groups on the basis of shuttle run ($p = 0.007$).so on the basis of analysed data v can say that both groups has same physical fitness abilities in 4 tests but that in shuttle run there was a significant difference.

Table-1
Data analysis of physical fitness variables of Volleyball players

Sr. No	Age in years	Pull ups/maximum performed	No. of sit ups in 1 min	Shuttle run/seconds	50m run/Seconds	600 m run/minutes
1	17	06	39	10.00	6.8	1.56
2	18	07	41	9.8	6.6	1.52
3	18	04	35	10.4	7.0	1.59
4	16	07	41	9.8	6.6	1.52
5	17	08	42	9.5	6.5	1.49
6	16	04	35	10.4	7.0	1.59
7	16	08	42	9.6	6.6	1.52
8	18	06	40	9.9	6.7	1.53
9	17	05	38	10.1	6.9	1.57
10	17	06	39	10.0	6.8	1.56
11	16	07	41	9.8	6.6	1.52
12	17	05	38	10.1	6.9	1.57
13	16	06	39	10.0	6.8	1.56
14	18	05	38	10.1	6.9	1.57
15	16	08	42	9.6	6.6	1.52

Table-2
Data analysis of physical fitness variables of Football players

Sr. No	Age in years	Pull ups/maximum performed	No. of sit ups in 1 min	Shuttle run/seconds	50m run/Seconds	600 m run/minutes
01	16	08	54	8.9	6.0	1.15
02	17	06	32	9.0	6.7	1.53
03	16	05	35	9.0	7.0	1.46
04	17	06	40	9.9	6.6	1.50
05	18	07	41	9.6	6.5	1.49
06	16	07	45	9.6	6.9	1.57
07	16	05	35	9.3	6.4	1.45
08	17	04	39	10.4	7.0	2.02
09	18	06	41	10.1	7.0	2.03
10	16	07	41	9.8	6.7	1.53
11	17	05	35	9.8	6.6	1.52
12	18	04	39	9.6	6.5	1.49
13	18	06	41	9.4	6.5	1.49
14	17	07	42	9.4	6.9	1.57
15	18	09	45	10.1	6.4	1.45

Table-3
Comparison of Football and Volleyball players on the basis of physical fitness variables

Test	Mean±SD Volleyball	Mean±SD Football	T-Value	P Value
PULL UPS	6.133 ± 1.355	6.133 ± 1.407	0.00	0.5
SIT UPS	39.333 ± 2.288	40.333 ± 5.300	0.670	0.253
SHUTTLE RUN	9.94 ± 0.266	9.593 ± 0.438	2.616	0.007
50 M DASH	6.753 ± 0.164	6.646 ± 0.2825	1.264	0.108
600 M RUN	1.546 ± 0.0304	1.55 ± 0.216	0.0709	0.471

Conclusion

On the basis of data collected from volleyball and football players physical fitness variables it was concluded that the physical fitness football players is better than volleyball players, as football players have performed better than volleyball players.

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